PUBLIC SERVICE COMMISSION
OF THE DISTRICT OF COLUMBIA

Comcast Cable Communications, Inc. d/b/a Comcast Cable of Washington D.C., Complainant, v. Verizon Communications Inc.– Washington D.C., Respondent.	Docket No.

AFFIDAVIT OF
PATRICIA D. KRAVTIN

I, PATRICIA D. KRAVTIN, do declare and state and follows:

1. My name is Patricia D. Kravtin. My business address is 57 Phillips Avenue, Swampscott, Massachusetts. I am an economist in private practice specializing in the analysis of telecommunications regulation and markets.

2. I have testified or served as an expert on telecommunications matters in proceedings before over thirty state regulatory commissions, including the DC PSC, where I served as the Commission's technical agent in several proceedings, including Formal Case Nos. 798, 827, 828, 814, 850, and 926, as well as the initial TELRIC

proceeding. I have also served as an expert in proceedings before the Federal Communications Commission ("FCC"), the Canadian Radio-television and Telecommunications Commission, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation before United States District Court, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience in the field of telecommunications regulation and policy is attached as an Appendix to this Affidavit.

3. Over the past several years, I have been actively involved in a number of state regulatory commission proceedings involving cost methodologies (including TELRIC) and the allocation of costs of incumbent local exchange carriers. I have also been actively involved in proceedings, both at the state and federal level, concerning implementation issues in connection with the passage of the Telecommunications Act of 1996 (the Act). One local network component, essential for the provision of competitive communications services, with which I am also very familiar, is access to poles, ducts, conduits, and rights-of-way. In 1997, I submitted a declaration on pole attachment, conduits and rights-of-way issues in FCC CS Docket No. 97-98 on behalf of the National Cable Television Association, et al. I also testified on the incumbent local exchange carrier's cost analysis for pole attachments in TELRIC proceedings before the Georgia Public Service Commission (Docket 7061-U) on behalf of the Cable Television Association of Georgia, and before the South Carolina Public Service Commission (Docket No. 97-374-C) on behalf of the South Carolina Cable Television Association. Most recently, I testified on the incumbent local exchange carrier's cost analysis for conduits in the New York Public

Service Commission's Unbundled Network Elements (UNE) proceeding (Case No. 98-C-1357) on behalf of the Cable Television & Telecommunications Association of New York, Inc.

4. The purpose of this Affidavit is to present a brief history and description of the maximum rate formula established by the FCC (and relied upon by state commissions throughout the country)[1] to set fees imposed upon cable television operators for their use of spare duct space in the incumbent utility's underground conduit system. This Affidavit presents specific results from application of the FCC formula to Verizon – D.C., calculated using 2000 year-end data from the FCC ARMIS automated data reporting system. Finally, this Affidavit describes the strong economic and policy rationale for relying upon the FCC formula instead of Verizon-D.C.'s rate proposals, the latter seeking to impose exorbitantly high rate increases on cable operators.

5. The FCC formula is a straightforward and economic approach for determining just and reasonable pole attachment rates and conduit rentals using an historical cost methodology and publicly available data. The FCC formula has been successfully relied upon for over two decades pursuant to the enactment of the Pole Attachment Act. The Pole Attachment Act was the legislative response to substantial evidence of abuses experienced by cable operators at the mercy of telephone and electric utilities, including "exorbitant rental fees and other unfair terms," and "it was in this context that the [FCC], guided by Congressional direction to use existing accounting measures to determine costs, decided to employ a historical cost based pole

[1] The FCC formula is applied directly by the FCC in 32 states, and by the majority of states that have certified to regulate pole attachment rates. *See* FCC Public Notice, "States that have Certified that They Regulate Pole Attachments," 7 FCC Rcd 1498, 1992 FCC LEXIS 931 (Released February 21, 1992).

attachment formula."[2] Since that time, Congress has repeatedly re-validated the use of embedded, historic cost based pricing for pole and conduit rentals.[3]

6. The first step in the FCC's straightforward methodology is to calculate the utilities' actual capital costs, based on booked costs as reported on ARMIS 43-02 and 43-08 for telephone utilities. For conduit, the utility's capital cost, is expressed in the methodology as net conduit investment, defined as gross conduit system investment account (ARMIS Account 2441) less accumulated depreciation (share of ARMIS Account 3100 corresponding to Account 2441), less accumulated deferred taxes (share of ARMIS Accounts 4100 and 4340 prorated to conduit). The net conduit investment figure for the system is then divided by the total system conduit length (typically measured in feet) to arrive at the net linear cost of conduit.[4] The net linear cost of conduit is then multiplied by a measure of the percentage of conduit capacity occupied by an attacher. Finally, the maximum rate is derived by multiplying the resulting product by a carrying charge factor that translates investment costs into annual costs. The FCC maximum rate formula for conduit rental, as described above, is as follows:

   (1) Maximum Rate = [Percentage of Conduit Capacity] times [Net Linear Cost of a Conduit] times [Carrying Charge Rate][5]

7. The FCC formula originally adopted a half-duct convention, based on the rebuttable presumption that an attacher occupies *only half* of the usable duct space. The FCC

[2] In the Matter of Amendment of Rules and Policies Governing Pole Attachments, CS Docket No. 97-98, *Consolidated Partial Order on Reconsideration,* FCC 01-170 (May 25, 2001) at ¶ 21.
[3] In 1983, Congress lifted the five-year sunset provision that was contained in the original version of Section 224, indicating its clear intent that the formula was working. Similarly, in amending Section 224 as part of the broad sweeping Cable Communications Policy Act of 1984, Congress left the formula intact. Congress also retained the formula without amendment in 1992 when it passed the Cable Television Consumer Protection and Competition Act of 1992, and again in 1996, when it passed the Telecommunications Act of 1996.
[4] Alternatively, the net linear cost of conduct may be derived on a duct basis by taking the product of the number of ducts and the net linear cost of a duct. In the Matter of Rules and Policies Governing Pole Attachments, CS Docket No. 97-98, *Report & Order,* FCC 00-116 (Released April 3, 2000) ¶ 87.

recently affirmed the half-duct convention as "a simple, expedient and reasonable approximation of the actual capacity occupied by a cable operator or telecommunications carrier attaching in a conduit system," citing "clear evidence that all types of cable… may share a duct." [6] Under the half-duct presumption, the percentage of conduit capacity used in the formula is calculated by dividing one-half by the average number of ducts in conduit, such that the maximum rate formula is expressed as follows:

(2) Maximum Rate = [0.5 divided by Average Number of Ducts in Conduit] times [Net Conduit Investment divided by System Conduit Length] times [Carrying Charge Rate]

8. In fact, however, where the attacher pulls inner duct, the amount of usable space is actually much less than half. Inner duct may contain four or six chambers, only one of which typically is occupied by an attacher. Accordingly, the half-duct convention creates too large a presumption of usable space, resulting in an unreasonably high pole attachment rate. In its *Report and Order* in CC Docket 97-98, [7] and more recently affirmed in its *Consolidated Partial Order on Reconsideration,*[8] the FCC retained the half-duct convention, but revised the formula to explicitly allow for the situation where the lessee utilizes inner duct. In those instances where inner duct is installed, the percentage of conduit capacity used in the formula is based on the *actual* percentage of capacity occupied. The actual percentage is calculated by dividing one by the number of inner ducts in the duct multiplied by one divided by the number of ducts in the conduit. With the presence of inner duct, the maximum rate formula is thus refined as follows:

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[5] *Report & Order at* ¶ 88. The application of this formula to cable operators and telecommunications carriers alike was recently affirmed by the FCC. See *Consolidated Partial Order on Reconsideration* at ¶ 88.
[6] *Consolidated Partial Order on Reconsideration* at ¶¶ 97-98.
[7] *Id.*at ¶95.
[8] *Consolidated Partial Order on Reconsideration* at ¶ 98.

(3) Maximum Rate = [(1 divided by Number of Ducts) times (1 Duct divided by Number of Inner Ducts)] times [Net Conduit Investment divided by System Conduit Length] times [Carrying Charge Rate]

9. Table 1 below presents the results obtained from application of the FCC maximum rate formula using publicly available data from the 2000 FCC ARMIS for Verizon-D.C. As shown in Table 1, using the FCC's half-duct presumption, the fully allocated cost for Verizon-D.C. is $0.23. However, as mentioned above, even the use of the half-duct convention overstates the cost of conduit rental in cases where an attacher occupies only a chamber of inner duct. In those cases, attachers should be assessed at the lower rates shown in Table 1, according to the portion of the inner duct actually occupied. (The calculations underlying Table 1 are presented in Exhibit 1, attached to this Affidavit.)

Table 1
Maximum Rate Results using FCC Formula

Per Full Duct	Per Half Duct	Per Third Duct	Per Quarter Duct	Source Data
$0.46	$0.23	$0.15	$0.12	2000 ARMIS

10. The FCC formula has withstood the test of time as being a reasonable, straightforward, cost-based approach to setting pole attachment and conduit rates and resolving rate disputes for cable television companies. Because the FCC formula is based upon publicly available information contained in existing annual reports, it can be applied simply and expeditiously, requires a minimum of resources to implement, and can be updated annually without commission intervention. By contrast, the application of a reproduction cost-based approach to conduit rental is neither straightforward nor readily modeled or validated.

11. In conclusion, there is strong economic and policy rationale for rejecting the substantial rate increases proposed by Verizon-D.C. for conduit rental and relying instead on the FCC maximum rate formula as described in this Affidavit.

_____

Patricia D. Kravtin

Sworn to before me this
_____ day of September, 2001.

_____

Notary Public of the
Commonwealth of Massachusetts

My Commission Expires _____

Patricia D. Kravtin

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Swampscott, MA 01907

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Summary

Consulting economist with specialization in telecommunications and energy markets. Extensive knowledge of complex economic, policy and technical issues facing incumbents, new entrants, regulators, investors, and consumers in rapidly changing telecommunications, cable, and energy markets. Oriented toward competitive, open-market strategies that carefully balance interests of major stakeholders.

Experience

CONSULTING ECONOMIST

2000–Present Independent Consulting Swampscott, MA

- Providing expert witness services and full range of economic, policy, and technical advisory services in the telecommunications and energy fields.

1982–2000 Economics and Technology, Inc. Boston, MA

SENIOR VICE PRESIDENT/SENIOR ECONOMIST

- Active participant in regulatory proceedings in over thirty state jurisdictions, before the Federal Communications Commission, Federal Energy Regulatory Commission, and other international regulatory authorities on telecommunications and energy matters.

- Led analysis of wide range of issues related to rates/rate structure, cost methodologies and functionalization, productivity/cost benchmarking, business case studies, local and long distance competition in telecommunications, electric industry restructuring, incentive or performance based regulation, universal service, access charges, and deployment of advanced services and broadband technologies.

- Served as advisor to state regulatory agencies, assisting in negotiations with utilities, non-partial review of record evidence, deliberations and drafting of final decisions.

- Provided expert witness and technical advisory services to a diverse set of public and private sector clients before state and federal regulatory agencies, and before U.S. district court.

- Extensive cable television regulation expertise in connection with implementation of the Cable Act of 1992 and the Telecommunications Act of 1996 by the Federal Communications Commission and local franchise authorities.

- Author of numerous industry reports and papers on topics including market structure and competition, alternative forms of regulation, patterns of investment, telecommunications modernization, and broadband deployment.

- Invited speaker before various national organizations, state legislative committees and participant in industry symposiums.

1978–1980 Various Federal Agencies Washington, DC

RESEARCH/POLICY ANALYST

- Prepared economic impact analyses related to allocation of frequency spectrum (Federal Communications Commission).

- Performed financial and statistical analysis of the effect of securities regulations on the acquisition of high-technology firms (Securities and Exchange Commission).

- Prepared analyses and recommendations on national economic policy issues including capital recovery. (U.S. Dept. of Commerce).

Education

1980–1982 Massachusetts Institute of Technology Boston, MA

- Graduate Study in the Ph.D. program in Economics (Abd). General Examinations passed in fields of Government Regulation of Industry, Industrial Organization, and Urban and Regional Economics.

- National Science Foundation Fellow.

1976–1980 George Washington University Washington, DC

- B.A. with Distinction in Economics.

- Phi Beta Kappa, Omicron Delta Epsilon in recognition of high scholastic achievement in field of Economics. Recipient of four-year honor scholarship.

Prof. Affiliation

American Economic Association

Reports and Studies

(authored and co-authored)

"Assessing SBC/Pacific's Progress in Eliminating Barriers to Entry, The Local Market in California is Not Yet 'Fully and Irreversibly Open," prepared for the California Association of Competitive Telecommunications Companies (CALTEL), August 2000.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" prepared for The Division of Public Utilities, March, 2000.

"Building a Broadband America: The Competitive Keys to the Future of the Internet," prepared for The Competitive Broadband Coalition, May 1999.

"Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30," prepared for AT&T and MCI Telecommunications, June 1998.

"Analysis of Opportunities for Cross Subsidies Between GTA and GTA Cellular," prepared for Guam Cellular and Paging, submitted to the Guam Public Utilities Commission, July 11, 1997.

"Reply to Incumbent LEC Claims to Special Revenue Recovery Mechanisms," submitted in the Matter of Access Charge Reform in CC Docket 96-262, February 14, 1997.

"Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the 'Gap' between embedded and forward-looking costs," submitted in CC Docket 96-262, January 29, 1997.

"Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the 'Gap' between Historical Costs and Forward-looking TSLRIC," Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, submitted in FCC CC Docket 96-98, May 30, 1996.

"Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, March 1, 1996.

"Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, December 1995.

"The Economic Viability of Stentor's 'Beacon Initiative,' exploring the extent of its financial dependency upon revenues from services in the Utility Segment," prepared for Unitel, submitted as evidence before the Canadian Radio-television and Telecommunications Commission, March 1995.

"Fostering a Competitive Local Exchange Market in New Jersey: Blueprint for Development of a Fair Playing Field," prepared for the New Jersey Cable Television Association, January 1995.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," February 1994.

"A Note on Facilitating Local Exchange Competition," prepared for E.P.G., November 1991.

"Testing for Effective Competition in the Local Exchange," prepared for the E.P.G., October 1991.

"A Public Good/Private Good Framework for Identifying Pots Objectives for the Public Switched Network" prepared for the National Regulatory Research Institute, October 1991.

"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990.

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990.

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990.

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, Virginia, December 1988.

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society at MIT, July 1988.

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988.

"Impact of Interstate Switched Access Charges on Information Service Providers - Analysis of Initial Comments," submitted in FCC CC Docket No. 87-215, October 26, 1987.

"An Economic Analysis of the Impact of Interstate Switched Access Charge Treatment on Information Service Providers," submitted in FCC CC Docket No. 87-215, September 24, 1987.

"Regulation and Technological Change: Assessment of the Nature and Extent of Competition From A Natural Industry Structure Perspective and Implications for Regulatory Policy Options," prepared for the State of New York in collaboration with the City of New York, February 1987.

"BOC Market Power and MFJ Restrictions: A Critical Analysis of the 'Competitive Market' Assumption," submitted to the Department of Justice, July 1986.

"Long-Run Regulation of AT&T: A Key Element of a Competitive Telecommunications Policy," *Telematics*, August 1984.

"Economic and Policy Considerations Supporting Continued Regulation of AT&T," submitted in FCC CC Docket No. 83-1147, June 1984.

Record of Prior Testimony

2001

Before the **Public Utility Commission of Texas**, State Office of Administrative Hearings, SOAH Docket No. 473-00-1014, PUC Docket No. 22349, *Application of Texas-New Mexico Power Company for Approval of Unbundled Cost of Service Rate Pursuant to PURA § 39.201and Public Utility Commission Substantive Rule §25.344*, on behalf of Cities Served by Texas-New Mexico Power, filed January 25, 2001.

2000

Before the **Puerto Rico Telecommunications Regulatory Board**, in *AT&T of Puerto Rico, Inc. et al v. Puerto Rico Telephone Company, Inc.,Re: Dialing Parity,* Docket Nos. 97-Q-0008, 98-Q-0002*,* on behalf of Lambda Communications Inc., cross-examination October 19-20, 2000.

Before the **Department of Telecommunications and Energy of the Commonwealth of Massachusetts**, Docket No. DTE 98-57 – Phase III, *Re: Bell Atlantic- Massachusetts Tariff No. 17 Digital Subscriber Line Compliance Filing and Line Sharing Filing*, (Panel Testimony with Joseph Riolo, Robert Williams, and Michael Clancy) on behalf of Rhythms Links Inc. and Covad Communications Company, filed July 10, 2000.

Before the **New York State Public Service Commission** in *Re: Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements* on behalf of the Cable Television & Telecommunications Association of New York, Inc., Direct Testimony filed June 26, 2000, Supplemental Testimony filed November 29, 2000.

Before the **Maryland Public Service Commission**, on behalf of Rhythms Links Inc. and Covad Communications Company, filed jointly with Terry L. Murray and Richard Cabe, May 5, 2000.

Before the **Public Utility Commission of Texas**, in *Re: Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996,* CC Docket No. 21982, on behalf of AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications Houston, Inc., filed March 31, 2000.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed January 24, 2000.

Before the **Federal Energy Regulatory Commission**, in *Re: In the Matter of Northern Border Pipeline Company*, on behalf of the Canadian Association of Petroleum Producers and the Alberta Department of Resource Development, filed January 20, 2000.

1999

Before the **Connecticut Department of Public Utilities**, in *Re: Evaluation and Application to Modify Franchise Agreement by SBC Communications Inc., Southern New England telecommunications Corporation and SNET Personal Vision, Inc.*, Docket No. 99-04-02, on behalf of the Office of Consumer Counsel, filed June 22, 1999; cross- examination July 8, 1999

Before the **Illinois Commerce Commission**, in *Re: Illinois Commerce Commission on its own Motion v. Illinois Bell Telephone Company; et al: Investigation into Non-Cost Based Access Charge Rate Elements in the Intrastate Access Charges of the Incumbent Local Exchange Carriers in Illinois, Illinois Commerce Commission on its own Motion Investigation into Implicit Universal Service Subsidies in Intrastate Access Charges and to Investigate how these Subsidies should be Treated in the Future, Illinois Commerce Commission on its own motion Investigation into the Reasonableness of the LS2 Rate of Illinois Bell*

Telephone Company, Docket No. 97-00601, 97-0602, 97-0516, Consolidated, on behalf of City of Chicago, filed January 4, 1999; rebuttal February 17, 1999.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Arbitration of Interconnection Rates, Terms and Conditions between Centennial Wireless PCS Operations Corp., Lambda Communications Inc., and the Puerto Rico Telephone Company*, behalf of Centennial Wireless PCS Operations Corp. and Lambda Communications Inc., cross-examination February 16, 1999.

1998

Before the **California Public Utilities Commission**, in *Re: In the Matter of the Application of Pacific Bell (U 1001 C), a Corporation, for Authority for Pricing Flexibility and to Increase Prices of Certain Operator Services, to Reduce the Number of Monthly Assistance Call Allowances, and Adjust Prices for Four Centrex Optional Features*, Application No. 98-05-038, on behalf of County of Los Angeles, filed November 17, 1998, cross-examination, December 9, 1998.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of PRTC's Tariff K-2 (Intra-island access charges)*, Docket no. 97-Q-0001, 97-Q-0003, on behalf of Lambda Communications, Inc., filed October 9, 1998, cross-examination October 9, 1998.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of the Southern New England Telephone Company*, Docket no. 98-04-03, on behalf of the Connecticut Office of Consumer Counsel, filed August 17, 1998, cross-examination February 18, 1999.

Before the **California Public Utilities Commission**, in *Re: Pacific Gas & Electric General Rate Case*, A.97-12-020, on behalf of Office of Rate Payers Advocates CA PUC, filed June 8, 1998.

1997

Before the **South Carolina Public Service Commission**, in *Re: Proceeding to Review BellSouth Telecommunications, Inc.'s Cost for Unbundled Network Elements*, Docket no. 97-374-C, on behalf of the South Carolina Cable Television Association, filed November 17, 1997.

Before the **State Corporation Commission of Kansas**, in *Re: In the Matter of and Investigation to Determine whether the Exemption from Interconnection Granted by 47 U.S.C. 251(f) should be Terminated in the Dighton, Ellis, Wakeeney, and Hill City Exchanges*, Docket No. 98-GIMT-162-MIS, on behalf of classic Telephone, Inc., filed October 23, 1997.

Before the **Georgia Public Services Commission,** in *Re: Review of Cost Studies, Methodologies, and Cost-Based Rates for Interconnection and Unbundling of BellSouth Telecommunications Services*, Docket No. 7061-U, on behalf of the Cable Television Association of Georgia, filed August 29, 1997, cross-examination September 19, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed July 11, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, CS Docket 97-98, on behalf of NCTA, filed June 27, 1997.

Before the **Public Utilities Commission of the State of California**, in *Re: Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks*, R.93-04-003, I.93-04-002AT&T, filed March 19, 1997, reply April 7, 1997.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Centennial Petition for Arbitration with PRTC,* on behalf of Centennial Cellular Corporation, filed February 14, 1997, supplemental March 10, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Access Charge Reform*, CC Docket 96-262, on behalf of AT&T, filed January 29, 1997, reply February 14, 1997.

1996

Before the **New Jersey Board of Public Utilities**, in *Re: In the Matter of the Investigation Regarding Local Exchange Competition for Telecommunications Services*, TX95120631, on behalf of New Jersey Cable Television Association, filed on August 30, 1996, reply September 9, 1997, October 20, 1997, cross-examination September 12, 1996, December 20, 1996.

Before the **State Corporation Commission of the State of Kansas**, in *Re: In the Matter of a General Investigation Into Competition Within the Telecommunications Industry in the State of Kansas*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas Cable Telecommunications Association, Inc., filed July 15, 1996, cross-examination August 14, 1996.

Before the **Federal Communications Commission**, in *Re: Price Caps Performance Review for Local Exchange Carriers*, CC Docket 94-1, on behalf of Ad Hoc Telecommunications Users Committee, filed July 12, 1996.

Before the **State Corporation Commission of the State of Kansas**, in *Re: In the Matter of a General Investigation Into Competition Within the Telecommunications Industry in the State of Kansas*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas Cable Telecommunications Association, Inc., filed June 14, 1996, cross-examination August 14, 1996.

Before the **Federal Communications Commission**, in *Re: In the Matter of Implementation of the Local Competition Provisions of Telecommunications Act of 1996*, CC Docket 96-98, filed May 1996.

Before the **Federal Communications Commission**, in *Re: Puerto Rico Telephone Company (Tariff FCC No, 1)*, Transmittal No. 1, on behalf of Centennial Cellular Corp., filed April 29, 1996.

Before the **United States District Court for the Eastern District of Tennessee at Greeneville**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, CIV 2-93-55, filed December 7, 1996.

1995

Before the **Federal Communications Commission**, in *Re: Bentleyville Telephone Company Petition and Waiver of Sections 63.54 and 63.55 of the Commission's Rules and Application for Authority to Construct and Operate, Cable Television Facilities in its Telephone Service Area*, W-P-C-6817, on behalf of the Helicon Group, L.P. d/b/a Helicon Cablevision, filed November 2, 1995.

Before the **US District Court of Tennessee**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, 2-93-55, Class Action, filed June 12, 1995.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of SNET Company for approval to trial video dial tone transport and switching*, 95-03-10, on behalf of New England Cable TV Association, filed May 8, 1995, cross-examination May 12, 1995.

Before **Canadian Radio-Television and Telecommunications Commission**, in *Re: CRTC Order in Council 1994-1689*, Public Notice CRTC 1994-130 (Information Highway), filed March 10, 1995.

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C- 6958, on behalf of Hawaii Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of the California Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Florida's Section 214 Application to Provide Video Dialtone in the Pinellas County and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Virginia's Section 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6956, on behalf of Virginia Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

1994

Before the **Federal Communications Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed December 22, 1994 (Reply to Supp. Responses).

Before the **State Corporation Commission of the State of Kansas**, in *Re: General Investigation into Competition*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas CATV Association, filed November 14, 1994, cross-examination December 1, 1994.

Before the **Federal Communication Commission**, in *Re: Carolina Telephone's Section 214 Application to provide Video Dialtone in areas of North Carolina*, W-P-C 6999, on behalf of North Carolina Cable TV Association, filed October 20, 1994, reply November 8, 1994.

Before the **Federal Communication Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed September 8, 1994, reply October 3, 1994.

Before the **California Public Utilities Commission**, in *Re: Petition of GTE-California to Eliminate the Preapproval Requirement for Fiber Beyond the Feeder*, I.87-11-033, on behalf of California Bankers Clearing House, County of LA, filed August 24, 1994.

Before the **Federal Communications Commission**, in *Re: BellSouth Telecommunications Inc., Section 214 Application to provide Video Dialtone in Chamblee, GA and Dekalb County, GA*, W-P-C 6977, on behalf of Georgia Cable TV Association, filed August 5, 1994.

Before the **Federal Communications Commission**, in *Re: Bell Atlantic Telephone Companies Section 214 Application to provide Video Dialtone within their Telephone Services Areas*, W-P-C 6966, on behalf of Mid Atlantic Cable Coalition, filed July 28, 1994, reply August 22, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Hawaii's 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C 6958, on behalf of Hawaii Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE California's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of California Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Florida's 214 Application to provide Video Dialtone in the Pinellas and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Virginia's 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6955, on behalf of the Virginia Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communications Commission**, in *Re: US WEST's Section 214 Application to provide Video Dialtone in Boise, Idaho and Salt Lake City, Utah*, W-P-C 6944-45, before the Idaho and Utah Cable TV Association, filed May 31, 1994.

Before the **Federal Communication Commission**, in *Re: US WEST's Section 214 Application to provide Video Dialtone in Portland, OR; Minneapolis, St. Paul, MN; and Denver, CO*, W-P-C 6919-22, on behalf of Minnesota & Oregon Cable TV Association, filed March 28, 1994.

Before the **Federal Communications Commission**, in *Re: Ameritech's Section 214 Application to provide Video Dialtone within areas in Illinois, Indiana, Michigan, Ohio, and Wisconsin*, W-P-C-6926-30, on behalf of Great Lakes Cable Coalition, filed March 10, 1994, reply April 4, 1994.

Before the **Federal Communications Commission**, in *Re: Pacific Bell's Section 214 Application to provide Video Dialtone in Los Angeles, Orange County, San Diego, and Southern San Francisco Bay areas*, W-P-C-6913-16, on behalf of Comcast/Cablevision Inc., filed February 11, 1994, reply March 11, 1994.

Before the **Federal Communications Commission**, in *Re: SNET's Section 214 Application to provide Video Dialtone in Connecticut*, W-P-C 6858, on behalf of New England Cable TV Association, filed January 20, 1994, reply February 23, 1994.

1993

Before the **Arkansas Public Service Commission**, in *Re: Earnings Review of Southwestern Bell Telephone Company*, 92-260-U, on behalf of Arkansas Press Association, filed September 2, 1993.

Before the **United States District Court for the Eastern District of Tennessee at Greenville**, in *Re: Cleo Stinnett, et al. Vs. BellSouth Telecommunications, Inc. d/b/a/ South Central Bell Telephone Company, Defendant*, Civil Action No 2-92-207, Class Action, cross-examination May 10, 1993, and February 10, 1994.

Before the **Federal Communications Commission**, in *Re: NJ Bell's Section 214 Application to provide Video Dialtone service within Dover Township, and Ocean County, New Jersey*, W-P-C-6840, on behalf of New Jersey Cable TV Association, filed January 21, 1993.

1992

Before the **New Jersey Board of Regulatory Commissioners**, in *Re: NJ Bell Alternative Regulation*, T092030358, on behalf of NJ Cable TV Association, filed September 21, 1992.

Before the **New Hampshire Public Utilities Commission**, in *Re: Generic competition docket*, DR 90-002, on behalf of Office of the Consumer Advocate, filed May 1, 1992, reply July 10, 1992, Surrebuttal August 21, 1992.

Before the **New Jersey General assembly Transportation, Telecommunications, and Technology Committee**, *Concerning A-5063*, on behalf of NJ Cable TV Association, filed January 6, 1992.

1991

Before the **New Jersey Senate Transportation and Public Utilities Committee**, in *Re: Concerning Senate Bill S-3617*, on behalf of New Jersey Cable Television Association, filed December 10, 1991.

Before the **119th Ohio General Assembly Senate Select Committee on Telecommunications Infrastructure and Technology**, in *Re: Issues Surrounding Telecommunications Network Modernization*, on behalf of the Ohio Cable TV Association, filed March 7, 1991.

Before the **Tennessee Public Service Commission**, in *Re: Master Plan Development and TN Regulatory Reform Plan*, on behalf of TN Cable TV Association, filed February 20, 1991.

1990

Before the **Tennessee Public Service Commission**, in *Re: Earnings Investigation of South Central Bell,* 90-05953, on behalf of the TN Cable Television Association, filed September 28, 1990.

Before the **New York Public Service Commission**, in *Re: NYT Rates, 90-C-0191, on behalf of User Parties NY Clearing House Association*, filed July 13, 1990, Surrrebuttal July 30, 1990.

Before the **Louisiana Public Service Commission,** in *Re: South Central Bell Bidirectional Usage Rate Service*, U-18656, on behalf of Answerphone of New Orleans, Inc., Executive Services, Inc., King Telephone Answering Service, et al, filed January 11, 1990.

1989

Before the **Georgia Public Service Commission**, in *Re: Southern Bell Tariff Revision and Bidirectional Usage Rate Service*, 3896-U, on behalf of Atlanta Journal Const./Voice Information Services Company, Inc., GA Association of Telemessaging Services, Prodigy Services, Company, Telnet Communications, Corp., filed November 28, 1989.

Before the **New York State Public Service Commission**, in *Re: NYT Co. - Rate Moratorium Extension - Fifth Stage Filing*, 28961 Fifth Stage, on behalf of User Parties NY Clearing House Association Committee of Corporate Telecommunication Users, filed October 16, 1989.

Before the **Delaware Public Service Commission**, in *Re: Diamond State Telephone Co. Rate Case*, 86-20, on behalf of DE PSC, filed June 16, 1989.

Before the **Arizona Corporation Committee**, in *Re: General Rate Case*, 86-20, on behalf of Arizona Corporation Committee, filed March 6, 1989.

1988

Before **New York State Public Service Commission**, in *Re: NYT Rate Moratorium Extension*, 28961, on behalf of Capital Cities/ ABC, Inc., AMEX Co., CBS, Inc., NBC, Inc., filed December 23, 1988.

1989

Before **Rhode Island Public Utilities Commission**, in *Re: New England Telephone*, 1475, on behalf of RI Bankers Association, filed August 11, 1987, cross-examination August 21, 1987.

Before the **New York State Public Service Commission**, in *Re: General Rate Case Subject to Competition*, 29469, on behalf of AMEX Co., Capital Cities/ ABNC, Inc., NBC, Inc., filed April 17, 1987, cross-examination May 20, 1987.

Before the **Minnesota Public Utilities Commission**, in *Re: Northwestern Bell*, P-421/ M-86-508, on behalf of MN Bus. Utilities Users Counsel, filed February 10, 1987, cross-examination March 5, 1987.

1986

Before the **Kansas Public Utilities Commission**, in *Re: Southwestern Bell*, 127, 140-U, on behalf of Boeing Military, et al., filed August 15, 1986.

1985

Before the **Washington Utilities and Transportation Commission**, in *Re: Cost of Service Issues bearing on the Regulation of Telecommunications Company*, on behalf of US Department of Energy, filed November 18, 1985 (Reply Comments).

1984

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 83-213, on behalf of Staff, ME PUC, filed February 7, 1984, cross-examination March 16, 1984.

Before the **Minnesota Public Service Commission**, in *Re: South Central Bell*, U-4415, on behalf of MS PSC, filed January 24, 1984, cross-examination February 1984.

1983

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8847, on behalf of KY PSC, filed November 28, 1983, cross-examination December 1983.

Before the **Florida Public Service Commission**, in *Re: Southern Bell Rate Case*, 820294-TP, on behalf of Florida Department of General Services, FL Ad Hoc Telecommunications Users, filed March 21, 1983, cross-examination May 5, 1983.

1982

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 82-142, on behalf of Staff, ME PUC, filed November 15, 1982, cross-examination December 9, 1982.

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8467, on behalf of the Commonwealth of Kentucky, cross-examination August 26, 1982.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

CAVALIER TELEPHONE, LLC, *Complainant*, v. VIRGINIA ELECTRIC & POWER CO. d/b/a DOMINION VIRGINIA POWER, *Respondent*.	CASE NO. EB-02-MD-005

To: Enforcement Bureau
Market Disputes Resolution Division

DECLARATION OF PATRICIA D. KRAVTIN

1. My name is Patricia D. Kravtin. I am an economist in private practice specializing in the analysis of telecommunications and energy regulation and markets. My business address is 57 Phillips Avenue, Swampscott, Massachusetts.

I. PROFESSIONAL BACKGROUND

2. I received a B.A. with Distinction in Economics from the George Washington University. I studied in the Ph.D. program in Economics under a National Science Foundation Fellowship at the Massachusetts Institute of Technology (M.I.T.). My fields of concentration at M.I.T. were government regulation of industry, industrial organization, and urban and regional economics.

3. My professional background includes employment and consulting experiences in regulated industries. Prior to graduate school, I performed research policy analysis at various governmental agencies including the Federal Communications Commission, the Securities and Exchange Commission, and the U.S. Commerce Department.

4. After graduate school, I joined the economic consulting firm of Economics and Technology, Inc. (ETI) as a consultant in that firm's regulatory consulting group. I held positions of increasing responsibility at ETI, including Senior Vice President/Senior Economist. At ETI, I worked extensively in the area of telecommunications economics and regulatory policy, focusing on such issues as industry structure, competition and market analysis, implementation of the Telecommunications Act, capital recovery, utility infrastructure, cost and demand studies, total factor productivity, and deployment of advanced technologies.

5. Upon leaving ETI in September 2000, I began my own consulting practice specializing in telecommunications and energy regulation and markets.

6. As a consultant, I have testified or served as an expert on a broad range of telecommunications economics and public policy issues in proceedings before regulatory commissions in Arizona, Arkansas, California, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Maine, Minnesota, Mississippi, Nevada, Maryland, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Tennessee, Texas, and Washington. I have also served as an expert in proceedings before the Federal Communications Commission ("FCC"), the Federal Energy Regulatory Commission ("FERC"), the Canadian Radio-television and Telecommunications Commission, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation before United States District Court, and also before a number of state legislative committees. I have also served as advisor to a number of state regulatory agencies. A detailed resume is provided as an attachment to this declaration.

7. I have reviewed both parties' submissions to the Commission regarding Dominion Virginia Power's ("DVP") 10.5% Corporate Overhead Recovery Factor, and am competent to give this declaration.

8. In my opinion, DVP is recovering the economically appropriate indirect costs associated with Cavalier's attachment requests and presence of DVP's poles through normal, industry-standard makeready and certain carrying charge components of the pole-attachment rate. DVP's 10.5% surcharge results in the over-recovery of costs – costs that would exist whether or not Cavalier was attached to DVP's poles.

II. ECONOMIC OR "ECONOMICALLY APPROPRIATE" COST RECOVERY DOES NOT REQUIRE RECOUPMENT OF ALL AMOUNTS THAT THEORETICALLY COULD BE ALLOCATED TO PUTATIVE COST-CAUSER

9. It is the regulator's obligation – in this case the FCC – to ensure that over-recovery does not occur, while ensuring that the utility receives just compensation. But just compensation, and reasoned principles of economic cost recovery do not require the allocation of every conceivable dollar that in theory could be attributed to a cost causer.[1] Indeed, while theoretically a broad array of costs could be loaded into charges assessed to pole users like Cavalier, it is neither feasible, nor appropriate, to do so. Through makeready and engineering charges, which themselves consist of "charge units" containing overhead elements, and the pole rental, Cavalier already pays an economically appropriate level of costs associated with its access to the poles. All that is required—from an economic or "rate-making" stand-point is that the recovery be

[1] *See Alabama Cable Telecomms. Ass'n v. Alabama Power Co*., 15 FCC Rcd. 17346, ¶ 6 (2000) ("In order to avoid a prolonged and complex methodology, our policy has been that not every detail of pole attachment cost must be accounted for, nor every detail of non-pole attachment cost eliminated from every account used in the Cable Formula. The inclusion of certain accounts is balanced by the exclusion of minor expenses that may have a legitimate nexus to pole attachment in other accounts.")

economically reasonable or appropriate in accordance with fundamental economic principles of cost causation.

10. In a case where the utility has control over an essential or bottleneck facility, as is clearly the case with pole attachments, the utility has both the ability and the incentive to charge attachers excessive rates. Absent a standard of economically reasonable or appropriate cost allocation, the utility would be unfettered in its ability to do so. DVP's levying of an additional 10.5% surcharge on pole attachers purportedly to reflect indirect costs – over and above existing billing and charges – is a perfect example of such behavior on the part of a utility.

III. DVP'S DEFENSE OF THE 10.5% SURCHARGE IS UNSUPPORTED

11. DVP states that budget information indicates that 90.5% of its 1999 budget constituted direct costs, while the remaining 9.5% were indirect. It then asserts that by dividing 9.5% by 90.5% a surcharge amount of 10.4% is produced—which then is presumably rounded up to 10.5%. DVP does not specifically attribute the extra 0.1% mark-up to rounding, but only that "at the time the rate was entered into Dominion Virginia Power's accounting system, the rate calculation yielded a rate of 10.5%."[2] Aside from statements made by the DVP witnesses, no additional information is proffered to verify the accuracy of these conclusions. Accordingly, there is no basis to verify the accuracy of either the underlying 10.4% figure or the 10.5% figure actually applied in the surcharge. For example, DVP's expert Dr. Gartrell asserts that he has examined "underlying documents and accounting records of sufficient scope and detail to form the opinion" that the charge is accurate and fair.[3] However, neither DVP, nor Dr. Gartrell, provide a single document to substantiate that defense.

[2] Blackwell Decl. ¶ 15.
[3] Gartrell Decl. ¶¶ 18, 19.

12. Obviously, without the benefit of scrutinizing the same records on which DVP relies for its assertions, both Cavalier and the Commission are hampered in their efforts to determine whether the factor in fact is reasonable in terms of either the general accuracy of the surcharge or more importantly, of the economic appropriateness of the surcharge as specifically applied to pole attachers. Review of the data underlying the surcharge could very well lead to economic and accounting conclusions other than those that DVP would have the Commission draw. Unfortunately, DVP's presentation leaves little choice but to take DVP's assertions at face value.

13. DVP also argues that if it does not assess the overhead factor, it is in effect subsidizing Cavalier at the expense of its electric ratepayers. But perhaps the most striking flaw in DVP's defense of its 10.5% is that (assuming the assertions are correct) the utility's so-called indirect costs that the surcharge purportedly reflects would exist *whether or not Cavalier—or any other attacher—was attached to the poles*. For a subsidy to occur, the utility (or its ratepayers) would have to pay to recover costs that **but for** the attachers would otherwise not exist. As this is not the case here, there can be no claim of subsidy.

14. What is most telling in this regard is that DVP has provided no evidence whatsoever of a specific identifiable cost burden being borne by its electric ratepayers as a result of the existence of pole attachers, only vague, unsubstantiated assertions to that effect.[4] Neither does DVP provide any specific evidence to support its claims (direct or implied) that the amounts collected from the 10.5% surcharges are actually applied as a direct offset to its revenue requirement for electric service rates, or that its electric ratepayers receive any direct benefit from the application

[4] *See, e.g.*, claims by Dr. Gartrell that such indirect costs "if left unallocated and thereby unrecovered, would create an actual loss and subsidy of the attachers by the company's electric ratepayers." Gartrell Decl. ¶ 23.

of the surcharge to pole attachers. Again, all we have are unsubstantiated assertions by its expert to that effect.[5]

IV. DVP RECEIVES FULL RECOVERY THROUGH MAKEREADY PAYMENTS

15. A major shortcoming with DVP's defense of the surcharge is that it directly contradicts a long-standing line of FCC precedent in this area. First, the Commission has repeatedly ruled that non-rate access charges for engineering, makeready and similar items must be cost-based.[6] Equally as important are the Commission's determinations that makeready charges only recover the costs that the utility would not have incurred, *but for* the attachment request.[7] While this appears to be a description of direct costs only (which I actually believe to be the most precise, fair and economic allocation), the testimony of DVP's Mr. Blackwell leads me to conclude that indirect costs are loaded into the charge units. In discussing the factors included in makeready-type invoices, he states that there are components for the "employee's salary or wage, payroll taxes, benefits, supplements, incentives and premiums."[8] In my view, at least three of the listed components could and perhaps do contain indirect factors: "supplements," "incentives" and "premiums." This, in fact, would be consistent with industry-standard cost-recovery approaches of recovering indirect costs through individual labor units, such as referenced by DVP's other expert, Dr. Gartrell.[9] While I note that Mr. Blackwell asserts (again without supporting documentation) that the labor rates do not include certain items that the overhead factor does include,[10] again, I do not believe that the additional items he lists are necessary, or appropriately attributed to pole attachers.

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[5] *See* Gartrell Decl. ¶¶ 23, 28.
[6] *See Texas Cable & Telecomms. Ass'n. v. GTE Southwest, Inc*., 14 FCC Rcd. 2975 (1999); *see also Texas Cable & Telecomms. Ass'n. v. Entergy Servs., Inc.,* 14 FCC Rcd. 9138 (1999).
[7] *See In the Matter of Implementation of Section 703(e) of the Telecommunications Act of 1996*, 13 FCC Rcd. 6777, ¶ 96 (1998).
[8] Blackwell Decl. ¶ 11.
[9] *See* Gartell Decl. ¶ 28.

16. DVP's arguments for inclusion of the 10.5% surcharge are closely analogous to efforts by pole owners to include a whole host of –at best – tangentially relevant indirect costs. Specifically, in a recent pole-attachment rulemaking, both electric utilities and ILECs attempted to include additional accounts in the Commission's pole rate formula. For example, ILECs sought to include ARMIS accounts 6110, 6120, 6534, 6535 and 6231 in the calculation of the administrative element. Those accounts include expenses for items such as furniture, office equipment, art work, computers, radio systems and aircraft expenses. Consequently, the Commission rejected the inclusion of these accounts because the expenses associated with these items were either unrelated to poles or already recovered through makeready charges.[11]

17. DVP, likewise, does not address the fact that it specifically bills Cavalier for administrative personnel time purportedly assigned to its projects.[12] Accordingly, DVP is already recovering costs related to administrative personnel time (at least those relevant to poles) in its billing rates and in its rental rates. For DVP to seek recovery of these types of costs in its overhead factor on top of these other existing charges will result in the blatant over-recovery of such costs from pole attachers and should not be permitted.

V. DVP RECEIVES FULL RECOVERY FROM THE ANNUAL RENTAL RATE

18. In addition to case-specific amounts already recovered from attachers in makeready payments, to the extent that it is economically appropriate to allocate <u>in the aggregate</u> any amount of indirect costs like those DVP advocates from attachers like Cavalier, this is already done in the pole-rental formula. Specifically, the pole attachment rental rate formula allows

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[10] *See* Blackwell Decl. ¶ 12.
[11] *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, Report and Order, 15 FCC Rcd. 6453 ¶¶ 50-51 (2000).
[12] *See* October 2000 Invoice, attached to Complaint as Exhibit 1.

recovery of administrative (FERC accounts 920-931, 935) maintenance (FERC account 593), all of which can be appropriately characterized as "overhead."

19. As I mentioned above, DVP's explanation of the surcharge includes no detailed information about the indirect costs it is seeking to recover or to which FERC accounts DVP attributes them.[13] The only information that DVP provides states that the indirect costs consist of, among other unspecified things, "corporate human resources, information technology, administration, finance and accounting services, and building maintenance."[14] Previously, in response to the Commission's request for information, DVP also described these indirect costs as "corporate support" consisting of "legal services, billing services, building maintenance, information systems, etc. related to the business activity of an electric utility."[15]

20. Accounts 920-931 and 935 cover a broad spectrum of administrative costs and are already factored into the pole rate. For example, Account 920 includes

> compensation (salaries, bonuses, and other consideration for services, but not including directors' fees) of officers, executives, and other employees of the utility properly chargeable to utility operations and not chargeable directly to a particular operating function.

21. Similarly, Account 921 includes "office supplies and expenses incurred in connection with the general administration of the utilities operations which are assignable to specific administrative or general departments and are not specifically provided for in other accounts." Account 923 includes fees and expenses of professional consultants such as accountants and attorneys. Account 935 includes costs and expenses incurred in the maintenance of property.

22. A good deal of the indirect costs DVP incorporates in the surcharge are likely attributed to these accounts and are therefore already recovered in the annual attachment rate. However,

[13] *See* Response pp. 41-48.
[14] *See id.* p. 44.
[15] Information Response p. 2; *see also* accompanying calculation sheet, Attachment 1 to Information Response.

without further, specific and detailed information about how DVP accounts for these expenses, neither the Commission nor Cavalier can adequately determine whether these individual expenses are indeed unrecovered, indirect expenses. Unless DVP can affirmatively show that these costs are not recovered in the fully allocated pole attachment rate, the 10.5% surcharge should not be applied to Cavalier's makeready and supplies charges. DVP has not made the required showing.

VI. EVEN IF THE COMMISSION FOUND THE APPLICATION OF AN INDIRECT ALLOCATOR WAS NOT *PER SE* UNREASONABLE, DVP'S SURCHARGE SHOULD STILL BE REJECTED AS BEING VASTLY OVERSTATED

23. While DVP has offered a more detailed explanation of the overhead charge on its third attempt, it has offered nothing more persuasive in this third round. For the numerous reasons discussed in this declaration, DVP's attempt to allocate indirect costs over and above those already reflected in existing billing and charges to Cavalier, through its 10.5% surcharge should be soundly rejected. However, to the extent the Commission found that the application of an indirect cost allocator was not *per se* unreasonable, it should still reject DVP's applied surcharge as being vastly overstated. While again, to be clear, I do not believe **any** surcharge for indirect costs is appropriately applied to pole attachers since these types of costs are already being recovered from pole attachers in the various ways described in my declaration, there is yet another basis upon which to conclude that DVP's surcharge is excessive in terms of how it is being applied to individual pole attachers.

24. Under the Commission's pole attachment formula, and as is appropriate under the principles of cost causation, only a small percentage of the total costs of the pole are in fact allocated to any individual pole attacher. Specifically, the percentage allocated to any one attacher is based upon the percentage of usable space on the pole that is occupied by that attacher

(plus, for a telecommunications carrier, a percentage of the unusable space). This same principle of cost allocation would apply to any additional costs to be recovered from an individual pole attacher. Accordingly, in the event it was determined that there were some additional indirect costs that were appropriately allocated to poles (and again, I do not believe that to be the case for the reasons I discuss in this declaration), at best, the share of any such costs attributed to any individual attacher should be no more than the fractional percentage share of other relevant costs allocated to the attacher for recovery under the pole attachment formula. By contrast, DVP's surcharge, because it was developed based upon a comparison of **total** utility costs (specifically the ratio of indirect to direct costs), effectively allocates 100% of costs purported to be indirect, as opposed to the much smaller **fractional** share of such costs.

VII. CONCLUSION

25. As documented over the years, utility efforts to over-recover for use of their facilities or services can come in a variety of flavors. They can come in the form of monopoly rents,[16] unreasonable and unsubstantiated invoicing for services,[17] or application, survey fees and administrative fees.[18] Finally, they can come in the form of percentage-based mark-ups to underlying charges such as the 10.5% (and the TERF) charges that DVP has applied. The Commission has already and correctly invalidated these charges.[19] For the reasons considered by the Commission previously, and for the reasons set forth in this declaration, the Commission should once again reject DVP's 10.5% surcharge.

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[16] *See Cavalier Tel., LLC v. Virginia Elec. & Power Co.*, 15 FCC Rcd. 17962 (2000).
[17] *See Cavalier Tel., LLC v. Virginia Elec. & Power Co.*, 15 FCC Rcd. 9563, ¶ 36 (2000) ("June 7, 2000 Order").
[18] *See* June 7, 2000 Order ¶ 22; *see also Texas Cable & Telecomms. Ass'n. v. GTE Southwest, Inc*., 14 FCC Rcd. 2975; *Texas Cable & Telecomms. Ass'n. v. Entergy Servs., Inc.,* 14 FCC Rcd. 9138.
[19] *See* June 7, 2000 Order ¶ 29; The FCC has consistently found that utilities may not assess administrative surcharges that are not supported by actual costs. S*ee also* June 7, 2000 Order ¶¶ 22, 41; *Texas Cable & Telecomm. Ass'n v. Entergy Services, Inc.,* 14 FCC Rcd. 9138, ¶ 10; *Texas Cable & Telecomm. Ass'n v. GTE Southwest, Inc.,* 14 FCC Rcd. 2975, ¶ 33; *Newport News Cablevision, Ltd. Communications, Inc. v. Virginia Elec. & Power Co.*, 7 FCC Rcd. 2610, ¶ 13 (1992); s*ee also Alabama Cable Telecomm. Ass'n v. Alabama Power Co*., 15 FCC Rcd. 17346.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

CAVALIER TELEPHONE, LLC, *Complainant*, v. VIRGINIA ELECTRIC & POWER CO. d/b/a DOMINION VIRGINIA POWER, *Respondent*.	CASE NO. EB-02-MD-005

To: Enforcement Bureau
Market Disputes Resolution Division

DECLARATION OF PATRICIA D. KRAVTIN

I, Patricia D. Kravtin, do hereby declare under the penalty of perjury of the laws of the United States of America that the attached Declaration is true and correct.

_____
Patricia D. Kravtin

Dated: _____

Patricia D. Kravtin

57 Phillips Avenue
Swampscott, MA 01907
781-593-8171
pdkravtin@attbi.com

Summary

Consulting economist with specialization in telecommunications and energy markets. Extensive knowledge of complex economic, policy and technical issues facing incumbents, new entrants, regulators, investors, and consumers in rapidly changing telecommunications, cable, and energy markets. Oriented toward competitive, open-market strategies that carefully balance interests of major stakeholders.

Experience

CONSULTING ECONOMIST

2000–Present Independent Consulting Swampscott, MA

- Providing expert witness services and full range of economic, policy, and technical advisory services in the telecommunications and energy fields.

1982–2000 Economics and Technology, Inc. Boston, MA

SENIOR VICE PRESIDENT/SENIOR ECONOMIST

- Active participant in regulatory proceedings in over thirty state jurisdictions, before the Federal Communications Commission, Federal Energy Regulatory Commission, and other international regulatory authorities on telecommunications and energy matters.

- Led analysis of wide range of issues related to rates/rate structure, cost methodologies and functionalization, productivity/cost benchmarking, business case studies, local and long distance competition in telecommunications, electric industry restructuring, incentive or performance based regulation, universal service, access charges, and deployment of advanced services and broadband technologies.

- Served as advisor to state regulatory agencies, assisting in negotiations with utilities, non-partial review of record evidence, deliberations and drafting of final decisions.

- Provided expert witness and technical advisory services to a diverse set of public and private sector clients before state and federal regulatory agencies, and before U.S. district court.

- Extensive cable television regulation expertise in connection with implementation of the Cable Act of 1992 and the Telecommunications Act of 1996 by the Federal Communications Commission and local franchise authorities.

- Author of numerous industry reports and papers on topics including market structure and competition, alternative forms of regulation, patterns of investment, telecommunications modernization, and broadband deployment.

- Invited speaker before various national organizations, state legislative committees and participant in industry symposiums.

1978–1980 Various Federal Agencies Washington, DC

RESEARCH/POLICY ANALYST

- Prepared economic impact analyses related to allocation of frequency spectrum (Federal Communications Commission).

- Performed financial and statistical analysis of the effect of securities regulations on the acquisition of high-technology firms (Securities and Exchange Commission).

- Prepared analyses and recommendations on national economic policy issues including capital recovery. (U.S. Dept. of Commerce).

Education

1980–1982 Massachusetts Institute of Technology Boston, MA

- Graduate Study in the Ph.D. program in Economics (Abd). General Examinations passed in fields of Government Regulation of Industry, Industrial Organization, and Urban and Regional Economics.

- National Science Foundation Fellow.

1976–1980 George Washington University Washington, DC

- B.A. with Distinction in Economics.

- Phi Beta Kappa, Omicron Delta Epsilon in recognition of high scholastic achievement in field of Economics. Recipient of four-year honor scholarship.

Prof. Affiliation

American Economic Association

Reports and Studies
(authored and co-authored)

"Assessing SBC/Pacific's Progress in Eliminating Barriers to Entry, The Local Market in California is Not Yet 'Fully and Irreversibly Open," prepared for the California Association of Competitive Telecommunications Companies (CALTEL), August 2000.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" prepared for The Division of Public Utilities, March, 2000.

"Building a Broadband America: The Competitive Keys to the Future of the Internet," prepared for The Competitive Broadband Coalition, May 1999.

"Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30," prepared for AT&T and MCI Telecommunications, June 1998.

"Analysis of Opportunities for Cross Subsidies Between GTA and GTA Cellular," prepared for Guam Cellular and Paging, submitted to the Guam Public Utilities Commission, July 11, 1997.

"Reply to Incumbent LEC Claims to Special Revenue Recovery Mechanisms," submitted in the Matter of Access Charge Reform in CC Docket 96-262, February 14, 1997.

"Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the 'Gap' between embedded and forward-looking costs," submitted in CC Docket 96-262, January 29, 1997.

"Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the 'Gap' between Historical Costs and Forward-looking TSLRIC," Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, submitted in FCC CC Docket 96-98, May 30, 1996.

"Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, March 1, 1996.

"Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, December 1995.

"The Economic Viability of Stentor's 'Beacon Initiative,' exploring the extent of its financial dependency upon revenues from services in the Utility Segment," prepared for Unitel, submitted as evidence before the Canadian Radio-television and Telecommunications Commission, March 1995.

"Fostering a Competitive Local Exchange Market in New Jersey: Blueprint for Development of a Fair Playing Field," prepared for the New Jersey Cable Television Association, January 1995.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," February 1994.

"A Note on Facilitating Local Exchange Competition," prepared for E.P.G., November 1991.

"Testing for Effective Competition in the Local Exchange," prepared for the E.P.G., October 1991.

"A Public Good/Private Good Framework for Identifying Pots Objectives for the Public Switched Network" prepared for the National Regulatory Research Institute, October 1991.

"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990.

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990.

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990.

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, Virginia, December 1988.

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society at MIT, July 1988.

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988.

"Impact of Interstate Switched Access Charges on Information Service Providers - Analysis of Initial Comments," submitted in FCC CC Docket No. 87-215, October 26, 1987.

"An Economic Analysis of the Impact of Interstate Switched Access Charge Treatment on Information Service Providers," submitted in FCC CC Docket No. 87-215, September 24, 1987.

"Regulation and Technological Change: Assessment of the Nature and Extent of Competition From A Natural Industry Structure Perspective and Implications for Regulatory Policy Options," prepared for the State of New York in collaboration with the City of New York, February 1987.

"BOC Market Power and MFJ Restrictions: A Critical Analysis of the 'Competitive Market' Assumption," submitted to the Department of Justice, July 1986.

"Long-Run Regulation of AT&T: A Key Element of a Competitive Telecommunications Policy," *Telematics*, August 1984.

"Economic and Policy Considerations Supporting Continued Regulation of AT&T," submitted in FCC CC Docket No. 83-1147, June 1984.

Record of Prior Testimony

2002

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: Petition of Centennial Puerto Rico License Corp. for arbitration pursuant to Sections 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Puerto Rico Telephone Company*, on behalf of Centennial Puerto Rico License Corp., Pre-filed Direct Testimony, April 16, 2002, Reply, May 20, 2002.

Before the **Federal Energy Regulatory Commission**, *in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation***, Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, filed January 23, 2002.

2001

Before the **United States District Court for the Northern District of New York**, *TC Systems, Inc. and Teleport Communications-New York vs. Town of Colonie, New York,* Civil Action No. 00-CV-1972, Expert Report, filed November 16, 2001; Rebuttal Expert Report, filed December 20, 2001.

Before the **Federal Energy Regulatory Commission**, *in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation***, Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, filed November 15, 2001.

Before the **Public Service Commission of the District of Columbia,** Comcast Cable Communications, Inc. d/b/a/Comcast Cable of Washington, D.C., Complainant, v. Verizon Communications Inc. – Washington, D.C., Respondent, filed September 21, 2001.

Before the **Public Utility Commission of Texas**, State Office of Administrative Hearings, SOAH Docket No. 473-00-1014, PUC Docket No. 22349, *Application of Texas-New Mexico Power Company for Approval of Unbundled Cost of Service Rate Pursuant to PURA § 39.201and Public Utility Commission Substantive Rule §25.344*, on behalf of Cities Served by Texas-New Mexico Power, filed January 25, 2001.

2000

Before the **Puerto Rico Telecommunications Regulatory Board**, in *AT&T of Puerto Rico, Inc. et al v. Puerto Rico Telephone Company, Inc.,Re: Dialing Parity,* Docket Nos. 97-Q-0008, 98-Q-0002, on behalf of Lambda Communications Inc., cross-examination October 19-20, 2000.

Before the **Department of Telecommunications and Energy of the Commonwealth of Massachusetts**, Docket No. DTE 98-57 – Phase III, *Re: Bell Atlantic- Massachusetts Tariff No. 17 Digital Subscriber Line Compliance Filing and Line Sharing Filing*, (Panel Testimony with Joseph Riolo, Robert Williams, and Michael Clancy) on behalf of Rhythms Links Inc. and Covad Communications Company, filed July 10, 2000.

Before the **New York State Public Service Commission** in *Re: Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements* on behalf of the Cable Television & Telecommunications Association of New York, Inc., Direct Testimony filed June 26, 2000, Supplemental Testimony filed November 29, 2000.

Before the **Maryland Public Service Commission**, on behalf of Rhythms Links Inc. and Covad Communications Company, filed jointly with Terry L. Murray and Richard Cabe, May 5, 2000.

Before the **Public Utility Commission of Texas**, in *Re: Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996,* CC Docket No. 21982, on behalf of AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications Houston, Inc., filed March 31, 2000.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed January 24, 2000.

Before the **Federal Energy Regulatory Commission**, in *Re: In the Matter of Northern Border Pipeline Company*, on behalf of the Canadian Association of Petroleum Producers and the Alberta Department of Resource Development, filed January 20, 2000.

1999

Before the **Connecticut Department of Public Utilities**, in *Re: Evaluation and Application to Modify Franchise Agreement by SBC Communications Inc., Southern New England telecommunications Corporation and SNET Personal Vision, Inc.*, Docket No. 99-04-02, on behalf of the Office of Consumer Counsel, filed June 22, 1999; cross- examination July 8, 1999

Before the **Illinois Commerce Commission**, in *Re: Illinois Commerce Commission on its own Motion v. Illinois Bell Telephone Company; et al: Investigation into Non-Cost Based Access Charge Rate Elements in the Intrastate Access Charges of the Incumbent Local Exchange Carriers in Illinois, Illinois Commerce Commission on its own Motion Investigation into Implicit Universal Service Subsidies in Intrastate Access Charges and to Investigate how these Subsidies should be Treated in the Future, Illinois Commerce Commission on its own motion Investigation into the Reasonableness of the LS2 Rate of Illinois Bell Telephone Company*, Docket No. 97-00601, 97-0602, 97-0516, Consolidated, on behalf of City of Chicago, filed January 4, 1999; rebuttal February 17, 1999.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Arbitration of Interconnection Rates, Terms and Conditions between Centennial Wireless PCS Operations Corp., Lambda Communications Inc., and the Puerto Rico Telephone Company*, behalf of Centennial Wireless PCS Operations Corp. and Lambda Communications Inc., cross-examination February 16, 1999.

1998

Before the **California Public Utilities Commission**, in *Re: In the Matter of the Application of Pacific Bell (U 1001 C), a Corporation, for Authority for Pricing Flexibility and to Increase Prices of Certain Operator Services, to Reduce the Number of Monthly Assistance Call Allowances, and Adjust Prices for Four Centrex Optional Features*, Application No. 98-05-038, on behalf of County of Los Angeles, filed November 17, 1998, cross-examination, December 9, 1998.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of PRTC's Tariff K-2 (Intra-island access charges)*, Docket no. 97-Q-0001, 97-Q-0003, on behalf of Lambda Communications, Inc., filed October 9, 1998, cross-examination October 9, 1998.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of the Southern New England Telephone Company*, Docket no. 98-04-03, on behalf of the Connecticut Office of Consumer Counsel, filed August 17, 1998, cross-examination February 18, 1999.

Before the **California Public Utilities Commission**, in *Re: Pacific Gas & Electric General Rate Case*, A.97-12-020, on behalf of Office of Rate Payers Advocates CA PUC, filed June 8, 1998.

1997

Before the **South Carolina Public Service Commission**, in *Re: Proceeding to Review BellSouth Telecommunications, Inc.'s Cost for Unbundled Network Elements*, Docket no. 97-374-C, on behalf of the South Carolina Cable Television Association, filed November 17, 1997.

Before the **State Corporation Commission of Kansas**, in *Re: In the Matter of and Investigation to Determine whether the Exemption from Interconnection Granted by 47 U.S.C. 251(f) should be Terminated in the Dighton, Ellis, Wakeeney, and Hill City Exchanges*, Docket No. 98-GIMT-162-MIS, on behalf of classic Telephone, Inc., filed October 23, 1997.

Before the **Georgia Public Services Commission,** in *Re: Review of Cost Studies, Methodologies, and Cost-Based Rates for Interconnection and Unbundling of BellSouth Telecommunications Services*, Docket No. 7061-U, on behalf of the Cable Television Association of Georgia, filed August 29, 1997, cross-examination September 19, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed July 11, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, CS Docket 97-98, on behalf of NCTA, filed June 27, 1997.

Before the **Public Utilities Commission of the State of California**, in *Re: Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks*, R.93-04-003, I.93-04-002AT&T, filed March 19, 1997, reply April 7, 1997.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Centennial Petition for Arbitration with PRTC,* on behalf of Centennial Cellular Corporation, filed February 14, 1997, supplemental March 10, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Access Charge Reform*, CC Docket 96-262, on behalf of AT&T, filed January 29, 1997, reply February 14, 1997.

1996

Before the **New Jersey Board of Public Utilities**, in *Re: In the Matter of the Investigation Regarding Local Exchange Competition for Telecommunications Services*, TX95120631, on behalf of New Jersey Cable Television Association, filed on August 30, 1996, reply September 9, 1997, October 20, 1997, cross-examination September 12, 1996, December 20, 1996.

Before the **State Corporation Commission of the State of Kansas**, in *Re: In the Matter of a General Investigation Into Competition Within the Telecommunications Industry in the State of Kansas*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas Cable Telecommunications Association, Inc., filed July 15, 1996, cross-examination August 14, 1996.

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Before the **Federal Communications Commission**, in *Re: In the Matter of Implementation of the Local Competition Provisions of Telecommunications Act of 1996*, CC Docket 96-98, filed May 1996.

Before the **Federal Communications Commission**, in *Re: Puerto Rico Telephone Company (Tariff FCC No, 1)*, Transmittal No. 1, on behalf of Centennial Cellular Corp., filed April 29, 1996.

Before the **United States District Court for the Eastern District of Tennessee at Greeneville**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, CIV 2-93-55, filed December 7, 1996.

1995

Before the **Federal Communications Commission**, in *Re: Bentleyville Telephone Company Petition and Waiver of Sections 63.54 and 63.55 of the Commission's Rules and Application for Authority to Construct and Operate, Cable Television Facilities in its Telephone Service Area*, W-P-C-6817, on behalf of the Helicon Group, L.P. d/b/a Helicon Cablevision, filed November 2, 1995.

Before the **US District Court of Tennessee**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, 2-93-55, Class Action, filed June 12, 1995.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of SNET Company for approval to trial video dial tone transport and switching*, 95-03-10, on behalf of New England Cable TV Association, filed May 8, 1995, cross-examination May 12, 1995.

Before **Canadian Radio-Television and Telecommunications Commission**, in *Re: CRTC Order in Council 1994-1689*, Public Notice CRTC 1994-130 (Information Highway), filed March 10, 1995.

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C- 6958, on behalf of Hawaii Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of the California Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Florida's Section 214 Application to Provide Video Dialtone in the Pinellas County and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Virginia's Section 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6956, on behalf of Virginia Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

1994

Before the **Federal Communications Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed December 22, 1994 (Reply to Supp. Responses).

Before the **State Corporation Commission of the State of Kansas**, in *Re: General Investigation into Competition*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas CATV Association, filed November 14, 1994, cross-examination December 1, 1994.

Before the **Federal Communication Commission**, in *Re: Carolina Telephone's Section 214 Application to provide Video Dialtone in areas of North Carolina*, W-P-C 6999, on behalf of North Carolina Cable TV Association, filed October 20, 1994, reply November 8, 1994.

Before the **Federal Communication Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed September 8, 1994, reply October 3, 1994.

Before the **California Public Utilities Commission**, in *Re: Petition of GTE-California to Eliminate the Preapproval Requirement for Fiber Beyond the Feeder*, I.87-11-033, on behalf of California Bankers Clearing House, County of LA, filed August 24, 1994.

Before the **Federal Communications Commission**, in *Re: BellSouth Telecommunications Inc., Section 214 Application to provide Video Dialtone in Chamblee, GA and Dekalb County, GA*, W-P-C 6977, on behalf of Georgia Cable TV Association, filed August 5, 1994.

Before the **Federal Communications Commission**, in *Re: Bell Atlantic Telephone Companies Section 214 Application to provide Video Dialtone within their Telephone Services Areas*, W-P-C 6966, on behalf of Mid Atlantic Cable Coalition, filed July 28, 1994, reply August 22, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Hawaii's 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C 6958, on behalf of Hawaii Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE California's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of California Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Florida's 214 Application to provide Video Dialtone in the Pinellas and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Virginia's 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6955, on behalf of the Virginia Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communications Commission**, in *Re: US WEST's Section 214 Application to provide Video Dialtone in Boise, Idaho and Salt Lake City, Utah*, W-P-C 6944-45, before the Idaho and Utah Cable TV Association, filed May 31, 1994.

Before the **Federal Communication Commission**, in *Re: US WEST's Section 214 Application to provide Video Dialtone in Portland, OR; Minneapolis, St. Paul, MN; and Denver, CO*, W-P-C 6919-22, on behalf of Minnesota & Oregon Cable TV Association, filed March 28, 1994.

Before the **Federal Communications Commission**, in *Re: Ameritech's Section 214 Application to provide Video Dialtone within areas in Illinois, Indiana, Michigan, Ohio, and Wisconsin*, W-P-C-6926-30, on behalf of Great Lakes Cable Coalition, filed March 10, 1994, reply April 4, 1994.

Before the **Federal Communications Commission**, in *Re: Pacific Bell's Section 214 Application to provide Video Dialtone in Los Angeles, Orange County, San Diego, and Southern San Francisco Bay areas*, W-P-C-6913-16, on behalf of Comcast/Cablevision Inc., filed February 11, 1994, reply March 11, 1994.

Before the **Federal Communications Commission**, in *Re: SNET's Section 214 Application to provide Video Dialtone in Connecticut*, W-P-C 6858, on behalf of New England Cable TV Association, filed January 20, 1994, reply February 23, 1994.

1993

Before the **Arkansas Public Service Commission**, in *Re: Earnings Review of Southwestern Bell Telephone Company*, 92-260-U, on behalf of Arkansas Press Association, filed September 2, 1993.

Before the **United States District Court for the Eastern District of Tennessee at Greenville**, in *Re: Cleo Stinnett, et al. Vs. BellSouth Telecommunications, Inc. d/b/a/ South Central Bell Telephone Company, Defendant*, Civil Action No 2-92-207, Class Action, cross-examination May 10, 1993, and February 10, 1994.

Before the **Federal Communications Commission**, in *Re: NJ Bell's Section 214 Application to provide Video Dialtone service within Dover Township, and Ocean County, New Jersey*, W-P-C-6840, on behalf of New Jersey Cable TV Association, filed January 21, 1993.

1992

Before the **New Jersey Board of Regulatory Commissioners**, in *Re: NJ Bell Alternative Regulation*, T092030358, on behalf of NJ Cable TV Association, filed September 21, 1992.

Before the **New Hampshire Public Utilities Commission**, in *Re: Generic competition docket*, DR 90-002, on behalf of Office of the Consumer Advocate, filed May 1, 1992, reply July 10, 1992, Surrebuttal August 21, 1992.

Before the **New Jersey General assembly Transportation, Telecommunications, and Technology Committee**, *Concerning A-5063*, on behalf of NJ Cable TV Association, filed January 6, 1992.

1991

Before the **New Jersey Senate Transportation and Public Utilities Committee**, in *Re: Concerning Senate Bill S-3617*, on behalf of New Jersey Cable Television Association, filed December 10, 1991.

Before the **119th Ohio General Assembly Senate Select Committee on Telecommunications Infrastructure and Technology**, in *Re: Issues Surrounding Telecommunications Network Modernization*, on behalf of the Ohio Cable TV Association, filed March 7, 1991.

Before the **Tennessee Public Service Commission**, in *Re: Master Plan Development and TN Regulatory Reform Plan*, on behalf of TN Cable TV Association, filed February 20, 1991.

1990

Before the **Tennessee Public Service Commission**, in *Re: Earnings Investigation of South Central Bell,* 90-05953, on behalf of the TN Cable Television Association, filed September 28, 1990.

Before the **New York Public Service Commission**, in *Re: NYT Rates, 90-C-0191, on behalf of User Parties NY Clearing House Association*, filed July 13, 1990, Surrebuttal July 30, 1990.

Before the **Louisiana Public Service Commission,** in *Re: South Central Bell Bidirectional Usage Rate Service*, U-18656, on behalf of Answerphone of New Orleans, Inc., Executive Services, Inc., King Telephone Answering Service, et al, filed January 11, 1990.

1989

Before the **Georgia Public Service Commission**, in *Re: Southern Bell Tariff Revision and Bidirectional Usage Rate Service*, 3896-U, on behalf of Atlanta Journal Const./Voice Information Services Company, Inc., GA Association of Telemessaging Services, Prodigy Services, Company, Telnet Communications, Corp., filed November 28, 1989.

Before the **New York State Public Service Commission**, in *Re: NYT Co. - Rate Moratorium Extension - Fifth Stage Filing*, 28961 Fifth Stage, on behalf of User Parties NY Clearing House Association Committee of Corporate Telecommunication Users, filed October 16, 1989.

Before the **Delaware Public Service Commission**, in *Re: Diamond State Telephone Co. Rate Case*, 86-20, on behalf of DE PSC, filed June 16, 1989.

Before the **Arizona Corporation Committee**, in *Re: General Rate Case*, 86-20, on behalf of Arizona Corporation Committee, filed March 6, 1989.

1988

Before **New York State Public Service Commission**, in *Re: NYT Rate Moratorium Extension*, 28961, on behalf of Capital Cities/ ABC, Inc., AMEX Co., CBS, Inc., NBC, Inc., filed December 23, 1988.

1989

Before **Rhode Island Public Utilities Commission**, in *Re: New England Telephone*, 1475, on behalf of RI Bankers Association, filed August 11, 1987, cross-examination August 21, 1987.

Before the **New York State Public Service Commission**, in *Re: General Rate Case Subject to Competition*, 29469, on behalf of AMEX Co., Capital Cities/ ABNC, Inc., NBC, Inc., filed April 17, 1987, cross-examination May 20, 1987.

Before the **Minnesota Public Utilities Commission**, in *Re: Northwestern Bell*, P-421/ M-86-508, on behalf of MN Bus. Utilities Users Counsel, filed February 10, 1987, cross-examination March 5, 1987.

1986

Before the **Kansas Public Utilities Commission**, in *Re: Southwestern Bell*, 127, 140-U, on behalf of Boeing Military, et al., filed August 15, 1986.

1985

Before the **Washington Utilities and Transportation Commission**, in *Re: Cost of Service Issues bearing on the Regulation of Telecommunications Company*, on behalf of US Department of Energy, filed November 18, 1985 (Reply Comments).

1984

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 83-213, on behalf of Staff, ME PUC, filed February 7, 1984, cross-examination March 16, 1984.

Before the **Minnesota Public Service Commission**, in *Re: South Central Bell*, U-4415, on behalf of MS PSC, filed January 24, 1984, cross-examination February 1984.

1983

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8847, on behalf of KY PSC, filed November 28, 1983, cross-examination December 1983.

Before the **Florida Public Service Commission**, in *Re: Southern Bell Rate Case*, 820294-TP, on behalf of Florida Department of General Services, FL Ad Hoc Telecommunications Users, filed March 21, 1983, cross-examination May 5, 1983.

1982

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 82-142, on behalf of Staff, ME PUC, filed November 15, 1982, cross-examination December 9, 1982.

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8467, on behalf of the Commonwealth of Kentucky, cross-examination August 26, 1982.

PUBLIC SERVICE COMMISSION
OF THE DISTRICT OF COLUMBIA

Comcast Cablevision of the District, L.L.C., Complainant, v. Verizon Communications Inc.– Washington D.C. Respondent.	Formal Case No. 1006

TESTIMONY OF

PATRICIA KRAVTIN

ON BEHALF OF

COMCAST CABLEVISION OF THE DISTRICT, L.L.C.

DATE: **JUNE 11, 2002**

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Exhibits

FORMAL CASE 1006

TESTIMONY OF COMCAST CABLEVISION OF THE DISTRICT, L.L.C. ON THE RATES BEING BILLED BY VERIZON COMMUNICATIONS INC. -- WASHINGTON, D.C. TO COMCAST IN CONNECTION WITH RENTAL OF VERIZON'S UNDERGROUND CONDUIT

Qualifications and Charge

Q. Please state your name, position and business address.

A. My name is Patricia D. Kravtin. I am an economist in private practice specializing in the analysis of telecommunications and energy regulation and markets. My business address is 57 Phillips Avenue, Swampscott, Massachusetts.

Q. Are you the same Patricia D. Kravtin who previously submitted an affidavit on behalf of Comcast Cablevision of the District, L.L.C. (Comcast) in this proceeding?

A. Yes, I am. My affidavit was submitted as an attachment to Comcast's Certified Formal Complaint filed September 21, 2001 in this proceeding.

Q. In that affidavit, did you provide a statement of your qualifications to give testimony on the issues addressed in this proceeding, including a statement of your occupational and educational history?

A. Yes, I did. In addition, a detailed resume summarizing my qualifications was attached as an Appendix to my affidavit. A copy of that affidavit, including my detailed resume, is attached to this testimony as Exhibit COMCAST(A)-1.

Q. Ms. Kravtin, could you describe the purpose of your testimony and the subject areas that your testimony addresses?

A. I have been asked by Comcast to address in more detail the issues covered in my September 21, 2001 affidavit including: (1) a description of the strong economic and policy rationale for relying upon the FCC formula instead of Verizon DC's rate proposals (the latter seeking to impose exorbitantly high rate increases on cable operators in connection with their use of these essential conduit facilities); (2) a history and description of the maximum rate formula established by the FCC to set fees imposed upon cable television operators (and more recently, competitive local exchange carriers) for their use of spare duct space in the incumbent utility's underground conduit system; and (3) the presentation of specific results from application of the FCC formula to Verizon DC, using data from the FCC ARMIS automated data reporting system. In addition, I have been asked to describe the relevant history pertaining to conduit rental in the District of Columbia, and to explain how use of the FCC formula is consistent with Commission precedent, current technology, and the public policy goal of promoting the deployment of advanced technologies.

Summary of Testimony

Q. Please summarize the testimony that you will be presenting before the Commission at this time.

A. My testimony addresses the multitude of reasons why the Commission should join the majority of state jurisdictions that rely on the FCC's historic cost-based formula in the setting of conduit rental rates. Among its many advantages, the FCC formula:

- Has withstood the test of time as being a reasonable, cost-based approach to setting attachment rates and resolving rate disputes for cable television (and more recently for competitive local exchange carriers);
- Has well-established pro-competitive benefits by preventing the charging of monopoly rents;
- Is designed to ensure that the rates are just, reasonable, and nondiscriminatory;
- Best achieves the Commission's mandate under DC Code § 34-1208 to set rates that are just, reasonable, non-discriminatory and in accordance with local laws, federal laws, and FCC rules and regulations;
- Is consistent with the formula approach adopted by Commission in its 1989 Order, with a few clarifications;
- Reflects current technology and best promotes the deployment of advanced technologies;
- Has recently been reaffirmed vis-à-vis forward looking or reproduction cost methods conduit, with full knowledge and consideration of changes occurring in the telecommunications industry; and
- Uses exclusively publicly available data and is so straightforward that it can be updated annually without agency intervention.

Table 1 below presents the results of the FCC formula applied to Verizon DC's conduit system using 2001 ARMIS data. Under the FCC approach, attachers pay according to the portion of the innerduct actually occupied. Verizon has indicated the placement of three innerducts as being standard,[1] suggesting that the one-third duct rate (shown below as $0.16) would most typically apply per attachment.

Table 1
Maximum Rate Results using FCC Formula

Per Full Duct	Per Half Duct	Per Third Duct	Per Quarter Duct	Source Data
$0.48	$0.24	$0.16	$0.12	2001 ARMIS, Depreciation rate from Verizon DC Response to Comcast 1-12[2]

That a cost-based formula, such as the FCC formula, is needed to preclude Verizon DC from charging monopoly rents for access to essential conduit facilities is best demonstrated by Verizon's own proposal to increase the rental rate charged Comcast by 760%, from the current annual rate of $0.64 per duct foot to an excessive $5.50 per duct foot. Verizon DC's ability to increase the prices it charges Comcast by such a substantial amount is, in and of itself, evidence of the lack of practical, cost effective alternatives to using Verizon DC's conduit system. My testimony cites other evidence demonstrating the lack of practical, cost-effective alternatives as well.

[1] *See* Verizon DC Responses to Comcast Data Requests 1-11 and 2-10 (stating that the current standard generally used is 4" pipe, that this size pipe has been used since the late 1970s, and that Verizon DC generally places 3 innerduct within a 4" pipe), attached hereto in Exhibit COMCAST(A)-5.

[2] Verizon DC Response to Comcast Data Request 1-12 is attached hereto in Exhibit COMCAST(A)-5.

Whatever limited conduit may be available from sources of conduit other than Verizon DC would be wholly inadequate to meet the ubiquitous conduit needs of Comcast's cable television network or to constrain Verizon DC's ability to extract monopoly rents for access to its conduit. Without affordable access to Verizon DC's conduit, Comcast will not be able to implement its planned upgrade, and District residents would be denied those services they so fervently desire.

The extensive and ubiquitous nature of cable's need for conduit vis-à-vis other users was recognized by the Commission as a distinguishing feature of cable at the time of the first introduction of cable in the District by Comcast predecessor DCLP. This distinction provided an important basis for the Commission's 1986 decision to establish a different (and lower) conduit rental rate for cable. While significant changes have occurred in the telecommunications industry since 1986, the reasoning underlying the Commission's decision at that time to require Verizon DC to charge cable operators a just and reasonable rate based on consideration of cable's special circumstances and of existing federal and local regulations remains as valid today as it did then.

Verizon DC is currently charging CLECs who "voluntarily" entered into conduit agreements excessive rates vis-à-vis those derived under the FCC formula. However, under no circumstances would it be appropriate public policy for the Commission to compound the problem of excessive rates for CLECs by now permitting Verizon DC to subject Comcast to monopoly rent as well. Rather, the correct public policy solution in response to concern over high conduit rental rates for CLECs would be to set those rates in accordance with the FCC formula as well. Similarly, under no circumstances would it

be appropriate to subject Comcast to higher conduit rental rates for noncable service offerings, i.e., high-speed Internet service provided by a cable modem. To do so would effectively penalize the cable operator for offering advanced services and is wholly inconsistent with the national public policy goal of promoting the deployment of advanced technologies (as found by the FCC and by the United States Supreme Court) and with the expressed desire of District residents for advanced services.

As well recognized by regulatory authorities, and as evidenced by Verizon DC's proposed 760% increase in the conduit rental rate, Comcast has no practical, cost-effective alternatives to the leasing of essential conduit facilities from Verizon DC.

Q. Ms. Kravtin, what is your understanding of the position that Verizon DC is taking in this proceeding with respect to conduit rates?

A. Verizon DC initially proposed a very substantial increase in its conduit rental rate being charged to Comcast. Specifically, Verizon DC sought to increase Comcast's per foot conduit rental rate by 760%, from an annualized rate of $.64 per duct foot per year to an annualized rate of $5.50 per duct foot per year.

Q. Is Verizon DC still seeking this increase?

A. No. It is my understanding that Verizon withdrew its proposed increase, and has decided for the time being to hold its rate at $.64 per duct foot per year. However, as demonstrated herein, even that rate is substantially higher than the rate derived using the

FCC formula, which is the formula that I advance in my testimony. Moreover, application of the FCC formula will preclude Verizon from arbitrarily increasing rates to monopoly levels in the future.

Q. Does Comcast have practical, cost-effective alternatives to the leasing of conduit space from Verizon DC?

A. No, it does not. Indeed, the lack of viable alternatives to Comcast is demonstrated by Verizon DC's proposed 760% increase in the rental price for conduit. As explained in Comcast's response to Verizon DC Data Request 1-1, the classic definition of monopoly or market power is the ability to control price, and in particular to set price above marginal cost. The 760% rental increase that Verizon DC initially sought reflects Verizon DC's ability to control price. To the extent there were viable competitive alternatives available to Comcast, Verizon DC would not be in the position it is to increase the price it charges Comcast so substantially, but rather, would be subject to the pricing disciplines of a competitive market. Clearly, such conditions are non-existent in the case of access to poles and conduit by cable operators.

Indeed, the very reason why the rates, terms and conditions of pole and conduit attachments came to be regulated in the first instance is due to the bottleneck monopoly status of poles and the fact that these are essential facilities that historically have been used for anti-competitive ends. (The history of pole attachment regulation is discussed in detail below). As cable television began to develop, pole and conduit owners, especially

telephone companies, recognized that the technology could pose a competitive threat to their core voice telephony business. In addition, telephone companies perceived cable television and broadband communications to be lucrative markets that they sought to exploit, in part through leveraging their monopoly control of the pole resource.

Verizon DC's exorbitant rate increase is fully consistent with past actions by pole and conduit owners, especially telephone companies, to impose onerous terms and conditions upon cable operators including dramatic increases in cable attachment rentals in an effort to protect their stranglehold in their core voice telephony business and to facilitate their entry into the cable television and broadband communications markets. That poles and conduits are "essential facilities" for which practical alternatives do not exist and that are capable of serving as bottlenecks to facilities-based competition is well recognized by the FCC and state and local regulatory bodies.[3] Most recently, the Supreme Court affirmed this notion.[4]

Q. Can you cite to any other evidence that demonstrates Verizon DC's monopoly control over access to conduit in the District?

[3] *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 13 FCC Rcd 1034, 1998 FCC LEXIS 140, ¶ 11 (January 13, 1998) ("Wireline video and telecommunications competition is heavily dependent on the ability of market participants to obtain access to utility poles, conduits, and rights of way at reasonable rates."); *Common Carrier Bureau Cautions Owners of Utility Poles*, 1995 FCC LEXIS 193, DA 95-35 (January 11, 1995) ("Utility poles, ducts, and conduits are regarded as essential facilities, access to which is vital for promoting the deployment of cable television systems."). *See also* Comcast Response to Verizon DC Follow-up Data Request 1-1(e), which includes citations to a number of judicial, legislative, and regulatory authorities on this point.

[4] *See NCTA v. Gulf Power*, 122 S. Ct. 782, 784 (2002) ("Since the inception of cable television, cable companies have sought the means to run a wire into the home of each subscriber. They have found it convenient, and often

A. As pointed out in Comcast response to Verizon DC Data Request 1-1, Verizon DC is one of the few companies to rent stand-alone conduit in the District and is the only one capable of providing ubiquitous coverage. Verizon DC owns well over three million feet of conduit in the District. In addition, Verizon DC has practically exclusive access to the Washington Metropolitan Area Transit Authority's ("WMATA") metro right of ways. While an extremely small number of other companies may have and be willing to sell conduit,[5] the companies that do tend to have conduit for sale or rent, however, are competitive local exchange carriers (CLEC's) who only build small conduit rings in discrete areas and are primarily focused toward serving businesses and not residences. Similarly, while there may exist the possibility of the wholesale rental of fiber optic transport services by cable companies and CLECs, such services, to the extent they are available, are typically carrier-grade transport services "for the last mile" connecting telecommunications carriers for the limited distance between their own networks and individual buildings.[6] Moreover, the FCC long has rejected efforts by incumbent local exchange carriers to force cable from the poles and into leaseback arrangements in which cable operators would be mere tenants and not owners of communications distribution facilities.[7]

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essential, to lease space for their cables on telephone and electric utility poles. Utilities, in turn, have found it convenient to charge monopoly rents.").

[5] *See, e.g.*, e.spire Communications, Inc. Press Release dated Jan. 25, 2002, available at http://biz.yahoo.com/prnews/020125/dcf003_1.html (announcing deal to provide conduit in Washington, D.C. to Dominion Telecom).

[6] *See Consolidated Edison Communications Enters New York City Fiber-Optic Transport Market* (Oct. 18, 2000), http://www.cedcom.com/20001018.html; Tr. at 5769, lines 3-12.

[7] *See, e.g., Applications of Telephone Companies for Section 214 Certificates for Channel Facilities Furnished to Affiliated Community Antenna Television Systems*, Final Report and Order, 21 FCC 2d 307, 324, *recon.* 22 FCC 2d 746 (1970), *aff'd sub nom., General Telephone Company of S.W. v. United States*, 449 F.2d 846 (5th Cir. 1971); *Better TV, Inc. of Dutchess Co. NY v. New York Tel. Co.*, 31 F.C.C.2d 939, 956 (1971) in which the FCC found New

As a general proposition, the construction of conduit or "trenching" by third parties often is not feasible due to local government resistance to authorizing unnecessary street cuts.[8] The combination of zoning, environmental, municipal ordinance, and financial constraints make it impractical for any third party to construct new conduit systems of any substantial nature.[9] Even if permitted, the cost of constructing a separate conduit system throughout an entire service area would be prohibitive. The social, aesthetic, and other costs of constructing duplicative conduit have long been avoided by requiring cable operators to follow the paths of existing utilities. Indeed, the DC code specifically requires cable operators to lease conduit as opposed to build whenever possible.[10]

Q. To the extent there is limited conduit available in the District from sources other than Verizon DC, would it be adequate to meet Comcast's needs?

A. No, it would not. Whatever limited conduit may be available from sources other than Verizon DC would be wholly inadequate to meet the ubiquitous conduit needs of Comcast's cable television network or to constrain Verizon DC's ability to extract monopoly rents for access to its conduit. Upon completion of its planned upgrade,

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York Telephone was engaged in a "pattern of conduct intended to delay or obstruct the construction of independent CATV systems in order to . . . coerce the operators to accept [lease-back] service."

[8] *See, e.g.*, Lyndsey Layton, *Hidden Cost of Road Tear-Ups; D.C. Taxpayers Stuck With bill For Trench-Weakened Streets*, THE WASHINGTON POST, Mar. 15, 2000, at A1 (attached to Comcast Response to Verizon DC Follow-Up Data Request 1-4).

[9] *See, e.g.*, S. Rep. No. 580, 95th Cong., 1st Sess. 13 (1977) ("Owing to a variety of factors, including environmental or zoning restrictions and the costs of erecting separate CATV poles or entrenching CATV cables underground, there is often no practical alternative to a CATV system operator except to utilize available space on existing poles.") *See also* Comcast Response to Verizon DC Follow-Up Data Request 1-1(e), which includes citations to a number of judicial, legislative, and regulatory authorities on this point, including the cited passage.

Comcast anticipates it will occupy approximately 200 miles of Verizon DC conduit.[11] Quite simply, without access to Verizon DC's conduits, Comcast potentially would be unable to serve subscribers in the District, and the viability of its planned upgrade and of its very business would be at risk.

Q. Does Comcast's need for ubiquitous access to conduit and the nature of the services it provides (or plans to provide) to District residents distinguish cable from other users of Verizon DC's conduit?

A. Yes, it does. Cable far and away leases more conduit than any other type of third party user. Comcast currently occupies about 1-million feet of conduit from Verizon DC, roughly half of all conduit leased to third parties by Verizon DC.[12] The remaining half of all conduit leased by Verizon DC is spread among 19 other users.[13] The extensive and ubiquitous nature of cable's need for conduit vis-à-vis other users was recognized by the Commission as a distinguishing feature of cable at the time of the first introduction of cable in the District by Comcast predecessor DCLP. This distinction provided an important basis for the Commission's decision to establish a different (and lower) conduit rental rate for cable.

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[10] *See* DC Code § 34-1233(a) (formerly D.C. Code § 43-1833(a)).

[11] *See* Comcast Response to Verizon DC Follow-Up Data Request 1-4.

[12] In its response to Comcast Data Request 1-4, Verizon DC indicates, that as of year-end 2001, Verizon DC leases 1,886,669 feet of conduit to third parties. *See* Exhibit COMCAST(A)-5. Comcast leases approximately 1-million feet of conduit from Verizon DC. *See* Exhibit COMCAST(A)-2 attached to this testimony (containing copy of Exhibit 1 of Certified Complaint, showing Comcast leasing 965,159 feet of conduit).

[13] Verizon DC Response to Comcast Data Request 1-3, attached in Exhibit COMCAST(A)-5.

Q. To what proceeding do you refer?

A. I am referring to the Commission's 1986 proceeding addressing the conduit rates charged cable operator DCLP, Comcast's predecessor, by Verizon's predecessor, C&P. In that proceeding, the Commission specifically found cable operators to be a distinct class of conduit users in the District, and that the public interest would be better served by addressing separately the conduit rates charged to cable operators.[14] As found by the Commission:

> In the present case, the record evidence before us reveals that DCLP is a separate class of customer that is different and distinct from the other users of C&P's conduits. For example, DCLP is the only user which will be providing cable television service. Moreover, DCLP will use approximately tenfold more conduit than AT&T, C&P's largest current user of conduit. It is undisputed that this difference in volume is substantial. [15]

The Commission also cited to existing federal and local law recognizing cable as a separate class of customer for use of a utility's poles and conduits.[16]

Q. Have circumstances changed that would invalidate the Commission's reasoning to treat cable differently from other users of conduit?

A. Significant changes have certainly occurred in the telecommunications industry since 1986. However, the reasoning underlying the Commission's decision at that time to permit Verizon DC to charge cable operators a just and reasonable rate based on

[14] *See Re District Cablevision Limited Partnership*, Formal Case No. 843, Order No. 8428, 72 P.U.R.4th 559 (1986) (hereinafter "*1986 Order*").

[15] *Id*. at 9.

consideration of their special circumstances and of existing federal and local regulations remains as valid today as it did then. As recent as 1998, the FCC concluded that "[w]ireline video and telecommunications competition is heavily dependent on the ability of market participants to obtain access to utility poles, conduits, and rights of way at reasonable rates."[17] As mentioned above, Comcast continues to lease far more conduit from Verizon DC than any other user, and Verizon DC still maintains monopoly control over conduit in the District and thus continues to have unearned bargaining leverage with respect to this important essential facility.

Moreover, while cable may not be the fledgling industry it was in 1986, as mentioned above, Comcast, like other cable operators nationwide, is in the midst of a major upgrade of its cable system in order to provide high-speed broadband and other advanced services. Without access to Verizon DC's conduit, Comcast will not be able to implement its planned upgrade, and District residents would be denied those services they so fervently desire.[18]

Furthermore, both Congress in the drafting of the Telecommunications Act and the FCC in implementing that Act affirmed the continuing appropriateness of the pre-Act rules and regulations pertaining to cable operators' access to poles and conduits, the existence of

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[16] *Id*. at 10 (citing former DC Code § 43-1808(a)(2) (now DC Code § 34-1208(a)(2)) and 47 U.S.C. §§ 621(c) and 224).

[17] *Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 13 FCC Rcd 1034, 1998 FCC LEXIS 140, ¶ 11 (Jan. 13, 1998).

[18] *See Final Report: District of Columbia Needs Assessment*, submitted by Institute for the Positive Use of Technology (InPUT) to Office of Cable Television & Telecommunications (OCTT) of the District of Columbia, 21 (Dec. 21, 2001) at http://octt.dc.gov/information/legal_docs/InPUT_2002_02_05_LINKS.pdf ("District residents

which the Commission relied on in its 1986 decision. Nothing in the legislative history indicates that the original purpose behind regulating utility poles and conduits, i.e., to prevent the telephone and power companies from charging cable operators monopoly rents to connect to their bottleneck facilities, changed with passage of the Act.[19] The FCC, in one of its post-Act orders, explicitly found this to be the case, noting that "nothing in the record demonstrates that the utilities' monopoly over poles has since changed."[20] The only change to speak of is that Congress, in the 1996 Act, expanded the FCC's jurisdiction over pole attachments to cover telecommunications in addition to cable services,[21] so that telecommunications carriers, as well as cable operators, would be entitled to the right to "nondiscriminatory access" to utility poles[22] as well as "just and reasonable" terms, including rates, pertaining to such access.[23] Thus, as the legislative history suggests, and just as the language in the Act suggests, in expanding the FCC's jurisdiction over poles Congress wanted telecommunications service providers, like the cable television companies before them, to be able to attach to the utilities' bottleneck facilities without having to pay monopoly rents.

As discussed in more detail later, the FCC in exercising its expanded jurisdiction over pole and conduit rentals has consistently and repeatedly applied its pre-Act regulations

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have manifested strong interest in state-of-the-art cable technology in numerous ways, including by expressing strong interest in advanced services and technologies and various new service possibilities.").

[19] *See* H.R. Rep. No. 104-204, at 92 (1996), *reprinted in* 1996 U.S.C.C.A.N. 10, 58.

[20] *In the Matter of Amendment of Rules and Polices Governing Pole Attachments, In the Matter of Amendment of Implementation of Section 703(e) of the Telecommunications Act of 1996,* Consolidated Partial Order on Reconsideration, 16 FCC Rcd 12103, ¶ 13 (2001) (hereinafter "*May 2001 Pole Order*").

[21] *See NCTA v. Gulf Power*, 122 S. Ct. 782, 785 (2002).

[22] *See* 47 U.S.C. § 224(f) (Supp. II 1996).

[23] *See* 47 U.S.C. § 224(b)(1) (Supp. II 1996).

for pole and conduit rentals, including the historic cost-based approach to pricing.[24] Thus, the FCC's recent endorsement of its historic cost-based approach to pole and conduit rentals has been made with full knowledge and consideration of changes occurring in the telecommunications industry including: the maturing of the cable market, the emergence of the Internet, the development of broadband technologies, the existence of competitive local exchange carriers (CLECs), and the application of forward-looking TELRIC –based pricing for ILECs' unbundled network elements offered to CLECs pursuant to the Act.

Q. How can the Commission justify permitting Verizon to charge a different rate to the cable operator for access to conduit than it charges to telecommunications carriers (including new CLECs) particularly in light of the fact that the latter have similar rights under the Act pertaining to access to conduit?

A. My answer to this question is two-part. First, for the reasons I discuss above in my testimony, there are important distinctions in Comcast's use of Verizon DC's conduit, most notably the difference in the amount and ubiquity of conduit required, that would continue to support the separate treatment of cable established in the Commission's 1986 order. Second, if there is an independent concern about the high rate Verizon DC is charging CLECs for access to conduit in light of now existing federal laws and FCC rules

[24] *See In the Matter of Amendment of Rules and Polices Governing Pole Attachments*, Report and Order, 15 FCC Rcd 6453 (2000) (hereinafter "*April 2000 Pole Order*") (*inter alia* rejecting report commissioned by utilities which argued utilities' facilities are not essential, reaffirming the historical cost-based pricing approach for pole and conduit, and establishing a conduit rental rate formula for cable operators). In the *April 2000 Pole Order*, the FCC stated that "for two decades the Cable Formula has provided a stable and certain regulatory framework," and noted that " Congress has not expressed any intent for the Commission to deviate from the use of historical costs in the Cable Formula." *Id*. at ¶¶ 9-10.

and regulations (and I believe there should be), the correct answer is not to use that concern as rationale for allowing Verizon DC to now charge Comcast that same unjustifiably high rate. Rather, such a concern would provide a basis for providing relief to CLECs in an appropriate forum.

Verizon DC began charging CLECs in the District a $5.25 conduit rental rate in 1991, [25] a full five years prior to the 1996 Act when CLECs were at the complete mercy of the ILECs. Subsequently, the 1996 Act directed the FCC to set just and reasonable rates for telecommunications, and a few years following, the FCC established the specific method by which the FCC formula approach would be applied. We now know that, under existing federal rules, the formula for conduit rental rates applicable to CLECs is the very same as that applicable to cable operators.[26] States have similarly adopted a single conduit rental formula for cable and CLEC attachments based on the FCC approach. [27] Under the federal approach, as discussed further below, CLECs would **not** be paying Verizon DC the exorbitant $5.50 rate, but rather the lower rate prescribed by the FCC formula (as calculated in the following section of my testimony).

[25] *See* Verizon DC Response to Comcast Data Request 1-3, attached hereto in Exhibit COMCAST(A)-5. This rate was subsequently increased by Verizon DC to $5.50 beginning in 1994.

[26] The FCC concluded "the lack of any unusable capacity in a conduit makes the practical application of the Pole Attachment Act formulas the same for both cable attachers and telecommunications attachers both before and after February 8, 2001." *May 2001 Pole Order* at ¶ 88.

[27] *See e.g. Proceeding On Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Supplemental Recommended Decision On Pricing Of Ducts And Conduits, Case 98-C-1357, N.Y. Pub. Serv. Comm'n (June 18, 2001), *affirmed by Proceeding On Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Order on Unbundled Network Element Rates, Case 98-C-1357 (Jan. 28, 2002) (hereinafter "*NY Order on UNE Rates*").

While I endorse application of a single conduit rental formula consistent with federal rules, that endorsement is explicitly tied to adoption of the federal rate formula for both cable and CLEC attachments. Under **no** circumstances would it be appropriate public policy for the Commission to compound the problem of excessive rates for CLEC attachments by permitting Verizon DC to subject Comcast to monopoly rent as well.

To achieve the objectives set forth in DC Code § 34-1208, the Commission should rely on the FCC formula in setting the maximum rates for conduit rental.

Q. What is the Commission's charge under DC law with respect to the setting of conduit rates?

A. DC Code §34-1208 (formerly §43-1808) directs the Commission to regulate underground conduit rental rates "in accordance with federal laws and FCC rules and regulations" and to ensure that all rates are "just and reasonable."

Q. Ms. Kravtin, from an economic and public policy perspective, what do you believe is the best way for the Commission to comply with its charge under §34-1208?

A. From an economics and public policy perspective, the best way for the Commission to achieve the objectives set forth in DC Code § 34-1208 is to rely on the methodology established by the FCC under the Pole Attachment Act in 1978. In doing so, the Commission would be joining the overwhelming majority of states who rely on the FCC approach in setting rates for conduit and pole attachments.

Q. Could you provide a little background on the Pole Attachment Act of 1978?

A. In 1978, Congress adopted the federal Pole Attachment Act (Pole Act), 47 U.S.C. §224, to prevent monopoly abuse of pole and conduit space. Congress mandated that the FCC regulate pole attachment rates, terms and conditions which are unjust and unreasonable unless a state PUC "certifies" to the FCC that pole attachments will be regulated at the state level. The Pole Act sets forth a rate-setting formula to be employed by the FCC in determining whether the pole and conduit rates charged by utilities are just and reasonable in states where local authorities have declined to regulate rates. The Pole Act also provided for a range of reasonableness within which the FCC could set rates. This range defined the minimum rate as the marginal cost of providing pole attachments, while the maximum rate a utility could charge was the fully allocated cost of construction and operation of each pole to which the television cable was attached.[28] As mentioned above, in 1996, Congress expanded the authority of the FCC to include telecommunications.

Q. Why should the Commission rely on the FCC approach in setting maximum rates for conduit rental?

A. The current FCC formula has withstood the test of time as being a reasonable, cost-based approach to setting attachment rates and resolving rate disputes. The formula was designed to ensure that the rates are just, reasonable, and nondiscriminatory and has been

[28] 47 USC § 224(d)(1).

used successfully to secure these goals for cable television, and more recently, for CLECs in the context of the current telecommunications industry environment.[29]

Q. Please describe the general approach of the FCC formula.

A. The FCC formula is a straightforward and economic approach for determining just and reasonable pole attachment rates and conduit rentals. Using exclusively publicly reported data, the first step in the FCC methodology is to calculate the utilities' actual capital costs, based on booked or "embedded" costs as reported on ARMIS 43-02 and 43-08 (formerly Form M).[30] For conduit, the utility's capital cost is expressed in the methodology as net conduit investment, defined as gross conduit system investment account less accumulated depreciation, less accumulated deferred taxes. The net conduit investment figure for the system is then divided by the total system conduit length (typically measured in feet) to arrive at the net linear cost of conduit.[31] The net linear cost of conduit is then multiplied by a measure of the percentage of conduit capacity occupied by an attacher. Finally, the maximum rate is derived by multiplying the resulting product by a carrying charge factor that translates investment costs into annual costs.[32]

Q. How does the FCC formula address the component dealing with conduit capacity?

[29] *May 2001 Pole Order* at ¶¶ 17, 22.

[30] The FERC Form 1 Report supplies the data for electric utilities.

[31] Alternatively, the net linear cost of conduit may be derived on a duct basis by taking the product of the number of ducts and the net linear cost of a duct. *April 2000 Pole Order* at ¶ 87.

A. The FCC formula originally adopted the half-duct convention, which presumed that an attacher occupies only half of the usable duct space. Using that presumption, the percentage of conduit capacity used in the formula simplifies to one-half divided by the average number of ducts in conduit.[33] In fact, however, where the attacher pulls innerduct, the amount of usable space occupied by the attacher is actually much less than half. Innerduct generally contains between three to six chambers, only one of which typically is occupied by a single attacher.

Accordingly, the half-duct convention as originally applied created too large a presumption of usable space where innerduct has been pulled, resulting in an unreasonably high rental rate. The FCC recognized this fact in its recent decision in CC Docket 97-98. [34] In that decision, the FCC retained the half-duct convention, but revised the formula to explicitly allow for the situation where the lessee pulls innerduct. In those instances where innerduct is installed, the percentage of conduit capacity used in the formula is based on the actual percentage of capacity occupied, calculated as one divided by the number of inner ducts in the duct multiplied by one divided by the number of ducts in the conduit [35] - consistent with the notion underlying the FCC approach that attachers should only be assessed for that amount of innerduct actually occupied. Indeed, there is no sound basis for presuming that a lessee occupies one-half of the duct where the

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[32] Maximum Rate = [Percentage of Conduit Capacity] times [Net Linear Cost of a Conduit] times [Carrying Charge Rate].

[33] Maximum Rate = [0.5 divided by Average Number of Ducts] times [Net Conduit Investment divided by System Conduit Length] times [Carrying Charge Rate].

[34] *See May 2001 Pole Order* at ¶ 95.

[35] *See Id*. at ¶ 98. [(1 divided by Number of Ducts) times (1 Duct divided by Number of Inner Ducts)] times [(Number of Ducts) times (Net Conduit Investment divided by System Duct Length)] times [Carrying Charge Rate].

evidence demonstrates that an even smaller portion of the duct is occupied through the use of innerduct. As recently found by the New York State Commission in rejecting Verizon's position to rely exclusively on the half-duct presumption, it is only reasonable to follow "the FCC's premise that the presence of inner duct rebuts the presumption of half-duct occupancy."[36]

Q. Is there evidence from Verizon confirming the presence of innerduct?

A. Yes. In information provided in response to a Comcast data request in this case, Verizon DC indicated it generally places three innerduct within a 4" plastic duct.[37] In addition, in a letter sent to cable attachers from Verizon NY detailing its compliance with the above-referenced New York Commission order which mandated the pricing of conduit based on the attacher's occupancy of innerduct, Verizon indicates its generic assumption that "three innerducts have been installed in ducts containing fiber optic cables."[38] In that same letter, Verizon provides pricing information for situations where up to four innerducts have been installed.

Q. Have you performed a calculation of Verizon DC's conduit rate using the FCC formula?

[36] *NY Order on UNE Rates* at 160.

[37] *See* Verizon DC Responses to Comcast Data Requests 1-11 and 2-10, attached hereto in Exhibit COMCAST(A)-5 (stating that the current standard generally used is 4" pipe, that this size pipe has been used since the late 1970s, and that Verizon DC generally places 3 innerduct within a 4" pipe).

[38] *See* Letter from Kathy Schwindt, Reimbursable Construction Engineer, Verizon, to Mike Genova, Cablevision Systems, dated May 2, 2002 (*see* Exhibit COMCAST(A)-3).

A. Yes, I have. Table 1 below summarizes the calculations I have performed (and which are presented in Exhibit COMCAST(A)-4 attached to this testimony). As shown in Table 1, the fully allocated cost for 2001, expressed on a full duct basis, is $0.48. Rates are presented in Table 1 for situations where the attacher occupies one-half duct, one-third duct, and one-quarter duct. As discussed above, under the FCC approach, attachers should pay according to the amount of innerduct actually occupied. Thus, if Verizon DC has a four-chamber conduit in which it uses one duct and a cable operator uses one duct, the cable operator occupies one-quarter of the duct space and accordingly would only pay for one-quarter duct (shown below as $0.12). As noted above, Verizon has indicated the placement of three innerducts as being standard, suggesting that the one-third duct rate (shown below as $0.16) would most typically apply.

Table 1
Maximum Rate Results using FCC Formula

Per Full Duct	Per Half Duct	Per Third Duct	Per Quarter Duct	Source Data
$0.48	$0.24	$0.16	$0.12	2001 ARMIS, Depreciation rate from Verizon DC Response to Comcast 1-12

The FCC's historic approach offers many advantages over a reproduction cost approach, such as being advanced by Verizon, ranging from ease of implementation and verification to pro-competitive effects.

Q. In the context of implementation, how would the FCC's embedded cost approach work?

A. The FCC's historical approach—which is based on a computed actual cost methodology—is so straightforward that it can be updated annually without agency

intervention, thus allowing each year's costs to be substituted for those in place during the prior year. The FCC formula may be applied by recourse to publicly available information contained in existing annual reports, thus precluding the need for an extended rate case. When an embedded cost-based methodology is established in a self-adjusting formula in this manner, new rates based on the latest year-end actual publicly reported costs, rates are brought current automatically, with a minimum of private, administrative effort, and no regulatory involvement.

Calculating rates based on embedded costs carries the additional benefit of matching the carrying charges to actual booked costs, as opposed to the reproduction cost approaches advanced by Verizon that attempt to match embedded-cost-based carrying charges with speculative reproduction asset cost.[39]

As found by the FCC in a recent order affirming the use of historical costs in the setting of pole attachment and conduit rental rates vis-à-vis switching to a reproduction cost method:

> [F]or two decades the Cable Formula has provided a stable and certain regulatory framework, that may be applied "simply and expeditiously" requiring a "minimum of staff, paperwork and procedures consistent with fair and efficient regulation." . . . We note that Congress has not expressed any intent for the Commission to deviate from the use of historical costs in the Cable Formula. . . .
>
> We believe the continued use of historical costs accomplishes key objectives of assuring, to both the utility and the attaching parties, just and reasonable rates, establishes accountability for prior cost recoveries, and accords with generally accepted accounting principles.[40]

[39] *See* Verizon DC Response to Comcast Data Request 2-3, attached hereto in Exhibit COMCAST(A)-5.

Q. Are there additional policy bases for pricing facilities such as conduit according to the FCC formula?

A. As discussed above, in most instances, where cable operators occupy space in Verizon DC's conduits, they have no practical or cost-effective alternative to the use of these facilities. As direct competition between cable television operators and telephone companies increases, the telephone company can be expected to utilize its bottleneck control over access to conduits and poles even more aggressively. If telephone companies are able to set charges for conduit occupancy at levels that are well in excess of their actual costs to provide – and well above the cost that they attribute to themselves in pricing services that compete directly with those offered by cable companies – they will establish an unfair and unjustified competitive advantage and thereby improperly discriminate against their rivals

The FCC formula has been used successfully over the years to promote reasonable, affordable, predictable and nondiscriminatory access to poles and for cable television systems. In the new competitive environment, where cable companies and others will be competing directly against incumbent telephone companies, the stakes involved have become even greater and so too the rationale for reliance upon the FCC formula for rate setting. The pro-competitive benefits of relying on the FCC formula in the context of conduit pole attachments is well established.[41] I believe that the economic and public

[40] *April 2000 Pole Order* at ¶¶ 9-10.

[41] *See, e.g., In the Matter of the Proceeding on Motion for the Commission to Consider Certain Pole Attachment Issues*, New York Pub. Serv. Comm'n. Case No. 95-C-0341, 1997 N.Y. PUC LEXIS 364 *11 (issued and effective

policy rationales in favor of adopting the FCC's approved methodology for setting maximum rates for conduit rents are compelling.

Q. You mentioned above that Verizon DC is advancing the use of a reproduction cost approach. On what do you base your testimony?

A. Although I have not yet seen Verizon DC's cost study (it will be filed coincidently with the filing of my testimony), Verizon has indicated in response to a Comcast data request that the cost study methodology it used to support its $5.50 rate relies on "forward-looking placement costs" developed based on "Subject Matter Expert (SME) average placement cost estimates."[42] Moreover, Verizon has relied on reproduction cost approaches in other states where it has sought substantial increases in rental rates for pole and conduits, and Verizon's proposed rate of $5.50 is consistent with such an approach. While Verizon may choose to characterize its cost study method using the more politically-correct term "forward-looking," the practical effect of Verizon's study methodology (which by design, is to support the proposed rate) is the same as the "reproduction" cost method of pricing that has been soundly (and repeatedly) rejected by the FCC. Due to Verizon's eleventh hour decision to withdraw the proposed rate increase, it is unclear whether Verizon will attempt to justify its current rate using reproduction costs.

June 17, 1997), *recon. denied*, 1997 N.Y. PUC LEXIS 639 (October 7, 1997); *New York Order on UNE Rates* at 154.

[42] *See* Verizon Response to Comcast Data Request 2-3 (A) and (B).

Q. Is it ever appropriate to use a reproduction method of pricing in utility regulation?

A. It makes sense from an economics standpoint to use reproduction cost pricing where such costs actually are incurred, as, for example, when there is ongoing reinvestment in technology. Reproduction costs may also be a proper measure of value when an asset is very short-lived. In addition, use of the reproduction cost methodology may be appropriate where the market for a good or service needs adjusting through price signals. Reproduction cost pricing leads to higher rates in times of comparatively high or rising prices. Higher rates tend to prevent possible artificial stimulation of the demand for utility services which otherwise might occur if such service were under-priced in terms of the real value of money.

Q. Does Verizon DC incur any reproduction costs to accommodate cable operators' rental of conduit?

A. No, capital costs are not incurred by the telephone company in renting conduit to cable operators. Verizon DC does not expressly construct conduits to provide for the needs of cable companies or other parties, but rather constructs these facilities for its own use and rents only excess capacity to cable operators. Unlike a construction company offering to build new conduit from scratch, Verizon DC typically is not required to open the street, dig a new trench, install more conduits, backfill and repave in order to accommodate an attacher. It is therefore inappropriate to charge conduit occupants anything approaching the full cost of a new conduit duct. Moreover, to the extent space has to be created to

accommodate cable, the attacher is required to pay for the creation of such space including any direct out-of-pocket expenses incurred by Verizon DC for the physical installation of the cables themselves when it makes the space available to cable operators in the form of "make-ready charges."[43]

Q. Please explain how make ready charges apply.

A. When Verizon DC actually does incur costs to accommodate cable, the costs are recovered, dollar for dollar, in the form of "make-ready charges" from the cable operator at the time they are incurred -- i.e., at the time of the initial installation of the cable duct.[44] Thus, Verizon DC does not incur forward-looking costs that are not **already** recovered from cable operators. Indeed, to recover these same costs in "forward looking" charges while retaining "make-ready" reimbursements would result in double charging and over recovery. Make ready payments are credited to Verizon DC's original cost accounts.[45] Cable operators unfairly would be double charged unless the rates are premised on net book costs.

Q. Are higher conduit rents such as proposed by Verizon DC needed to prevent the artificial stimulation of the demand for conduit in the District?

[43] *In the Matter of Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Second Report and Order, 72 FCC 2d 59, 72 ¶ 29 (1979) (hereinafter "*1979 Second Report and Order*").

[44] *See* Verizon DC Amended Response to Comcast Data Request 1-15(A), attached hereto as Exhibit COMCAST(A)-5.

[45] *See* Verizon DC Amended Response to Comcast Data Request 1-15(D), attached hereto as Exhibit COMCAST(A)-5.

A. No. There is simply no risk that cable operators will over-consume conduit space because rental is priced too low. Even if cable operators were to somehow over consume conduit space, they would be required to pay make-ready charges. Utilities would not bear the cost of such over consumption and are never at risk of over investment. Likewise, current costing has not led to under-investment in conduit. In fact, fundamental technological changes actually have increased the capacity of existing duct space in recent years. Utilities typically require cable operators to pull inner duct in order to create additional pathways within the conduit, which actually increases the capacity of the duct. Within the innerduct, high capacity fiber is replacing outmoded copper wires. As a result, Verizon DC can actually end up with *more* pathways as a result of the cable operator's attachment. When a cable or CLEC places cable within a conduit, it does not "occupy" or foreclose use of the remaining capacity by CLEC or Verizon for its own purposes. Indeed, Verizon DC retains title to the innerduct and may use or lease the duct space not being used by the cable operator.

Q. How is conduit different from ILEC unbundled network elements for which forward-looking costs have been deemed to be an appropriate pricing measure?

A. Conduits are very long-lived assets, with economic lives of 50 years or longer.[46] Thus, costs may be depreciated over a large span of years. Even though Verizon DC's costs

[46] *See Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, Tenth Report and Order, 14 FCC Rcd 20156 (Nov. 2, 1999) at Appendix A, Part 3 (Input Values for Capital Costs) (stating that conduit economic life is 56 years); *see also Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, N.Y. Pub. Serv. Comm'n Case 98-C-1357, Verizon New York Response to Data Request CTTANY-BA-13 (identifying the average useful life of conduit to be 50 years) and Verizon New York Response to Data Request CTTANY-BA-33 (providing an

were based on 1989 and prior embedded costs,[47] the depreciation schedule for the underlying capital extends over the useful life of 50 years. Because most telecommunications services utilize fixed plant, in the short run the telephone company does not normally incur capital costs in furnishing a specific service to a specific customer. It is for this reason that for most non-obsolete (i.e., currently available and/or growing) services the TELRIC (total element long run incremental cost) that is used for ratemaking purposes includes the costs of plant that will be acquired in the future to replace the in-place capacity that is presently being utilized. In the case of conduit space, however, little such replacement capacity would be constructed. In addition, there is no ongoing re-investment in innovative "pole" technologies, unlike, for example, in switches. The notion that conduit requires the same proportional future investment as a switch does not reflect the economics (or true cost) of conduit maintenance.

Congress, the FCC and the majority of States certified to regulate pole and conduit attachments (including this Commission) have specifically rejected forward looking cost approaches in favor of a historic, embedded cost based formula.

Q. Has Congress specifically rejected the application of a forward-looking approach for pricing conduit?

A. Yes, it has. In adopting the federal standards for pole and conduit rates, Congress specifically rejected a forward-looking approach and limited recovery to "operating

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earlier study identifying the average useful life of conduit is identified as 80 years), attached hereto as Exhibit COMCAST(A)-6.

[47]*See Conditions for Cable Television Use of Utility Poles*, Formal Case No. 815, Order No. 9277, 10 D.C.P.S.C. 297 (1989) (hereinafter "*1989 Order*").

expenses and actual capital costs of the utility attributable to the entire pole, duct, conduit or right-of-way."[48] Congress further defined these terms in Senate Report 95-580 as "the costs to the utilities, irrespective of the CATV attachment, of owning and maintaining the pole, including interest on debt, return on equity, depreciation, taxes, administrative and maintenance expenses."[49] Congress required the FCC to rely on pre-existing Form M (now ARMIS) and FERC reports, which contained the majority of cost and expense items attributable to utility pole plant, to eliminate the need for separate rate cases to resolve components of actual costs.[50]

Q. Has Congress indicated any intent to depart from an historic cost based approach?

A. No. Congress repeatedly has re-validated the use of embedded, historic cost based pricing for pole and conduit rentals. In 1983, Congress lifted the five-year sunset provision that was contained in the original version of Section 224, indicating its clear intent that the formula was working.[51] Similarly, in amending Section 224 as part of the broad sweeping Cable Communications Policy Act of 1984, Congress left the formula intact.[52] Congress also retained the formula without amendment in 1992 when it passed

[48] 47 U.S.C. § 224(d)(1).

[49] S. R. No. 580, 95th Cong., 1st Sess. 13 (1977).

[50] *Id*.

[51] Communications Act of 1934, Amendment, Pub. L. No. 97-259, 96 Stat. 1087 (1983).

[52] Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (1984).

the Cable Television Consumer Protection and Competition Act of 1992,[53] and again in 1996, when it passed the Telecommunications Act of 1996.[54]

Q. How has the FCC executed its Congressional mandate?

A. As noted above, the FCC consistently has relied on historic costs and rejected the use of reproduction costs in determining whether rates are just and reasonable. Section 1.1404 of the FCC's rules setting forth the elements of a complaint provides: "Data and information should be based upon historical original cost methodology, insofar as possible. Data should be derived from Form M, FERC 1, or other reports filed with state or federal regulatory agencies (identify source)."[55] Similarly, in its 1979 Second Report & Order, the FCC stated: "With regard to the argument advanced by Bell and others that replacement costs should be taken into account in determining pole attachment rates**,** *we do not consider such costs to be reflective of actual costs incurred.* We believe historical costs most accurately reflect actual or embedded costs."[56] . The FCC again rejected a replacement cost approach in *Teleprompter Corp. v. Mountain States Telephone & Telegraph Co.*[57] In *Multimedia Cablevision, Inc. v. Southwestern Bell Telephone Company*, the FCC reaffirmed its intent to rely on statewide historic cost information in determining whether conduit rentals are just and reasonable.[58] Similarly, in the *First*

[53] Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992).

[54] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

[55] 47 C.F.R. §1.1404.

[56] 1979 Second Report & Order at ¶ 15 (emphasis added).

[57] 49 R.R.2d 719, ¶ 9 (1981, PA-79-0035, Mimeo No. 000736 (May 7, 1981).

[58] 11 FCC Rcd 11202, ¶ 27 (1996).

Report and Order implementing the local competition provisions in the Telecommunications Act of 1996 ("Local Competition Report"), the FCC limited pole and conduit attachment rentals to the maximum amount permitted by its own formula.[59] The FCC has continued to rely on its historic cost based formula in all pole attachment cases post-dating the Local Competition Report.[60] As noted earlier, in a recent decision, the FCC once again affirmed the use of historic cost based formulas in the setting maximum rates for pole and conduit attachments.[61]

Q. Has this Commission rendered a finding concerning the use of reproduction costs for setting conduit rates?

A. Yes. In its 1986 Order, the Commission categorically rejected as inappropriate C&P's attempt to use "prospective costs" as the basis for setting conduit rental rates for cable television's use, citing specifically to the legislative history of the Pole Attachment Act.[62] As noted above, the Commission's rejection of "prospective" or forward-looking costs and its view of the legislative history of the Pole Act more recently has been validated on numerous occasions by the FCC. As discussed earlier, the FCC, having full knowledge and consideration of changes occurring in the telecommunications industry, has

[59] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, First Report and Order, 11 FCC Rcd 15499, ¶ 1156 (1996).

[60] *See, e.g., Time Warner Entertainment/Advance Newhouse Partnership et al. v. Florida Power & Light Co.*, 14 FCC Rcd 9149, ¶ 5 (1999); *Nevada State Cable Television Ass'n v. Nevada Bell*, 13 FCC Rcd 16774 (1998).

[61] *See April 2000 Pole Order; May 2001Pole Order*.

[62] *1986 Order* at 14.

steadfastly continued to endorse its historic cost-based approach to pole and conduit rentals in the post-Act era, as have other states.

Q. How many states have adopted the FCC formula?

A. The FCC formula is applied directly by the FCC in 32 states, [63] and by the majority of states that have certified to regulate pole attachment rates. For example, California, in promulgating rules governing pole and conduit attachments, adopted an embedded cost based methodology. Section 767.5 of the California Public Utility Code states: "The basis for computation of annual capital costs shall be historical capital costs less depreciation."[64] Even states that initially adopted alternative methods have moved to the FCC formula. Other states have adopted the FCC approach after considering extensive testimony of alternative methodologies. For example, the New York Public Service Commission relied on the FCC's historic cost method for pole attachments finding it to be most conducive to competition.[65] Just recently, the New York Commission affirmed the applicability of the FCC's historical-cost approach to conduit rental as well, categorically rejecting Verizon's attempt to apply a forward-looking cost methodology.[66] The New York Commission reached its decision based upon what it characterized as a

[63] The FCC formula is applied directly by the FCC in 32 states, and by the majority of states that have certified to regulate pole attachment rates. *See* FCC Public Notice, "States that have Certified that They Regulate Pole Attachments," 7 FCC Rcd 1498, 1992 FCC LEXIS 931 (Rel. Feb. 21, 1992).

[64] Cal. Pub. Util. Code § 767.5 (1999). In adopting embedded cost pricing for conduit rents, the California PUC found that embedded cost pricing "promotes the emergence of a competitive local exchange market." *Order Instituting Rulemaking on the Commission's Own Motion Into Competition for Local Exchange Service*, Decision No. 98-10-058 (Cal. PUC Oct. 22, 1998).

[65] *In the Matter of the Proceeding on Motion of the Commission to Consider Certain Pole Attachment Issues*, New York Pub. Serv. Comm'n Case No. 95-C-0341, 1997 N.Y. PUC LEXIS 364 (Issued and effective June 17, 1997), *recon. denied*, 1997 N.Y. PUC LEXIS 639 (October 7, 1997) (rejecting TSLRIC and reproduction costs for poles).

"thorough airing of the issue" in the case and expressing satisfaction that the Administrative Law Judge properly resolved the issue.

Use of the FCC formula is consistent with the rate setting methodology for conduit adopted by the Commission, but appropriately adapted to reflect current technology and public policy goals to promote the deployment of advanced technologies.

Q. Ms. Kravtin, have you reviewed prior decisions of the Commission pertaining to conduit rental rates applicable to the cable operator?

A. Yes. I have reviewed both the Commission's 1986 decision establishing the conduit rental rate to be applied to Comcast's predecessor, DCLP, for an initial three-year period,[67] as well as the Commission's 1989 order establishing the permanent rate to be applied after expiration of the initial three-year period.[68]

Q. What approach did the Commission adopt in its 1989 order establishing the permanent rate?

A. The Commission's 1989 Order established a semi-annual charge developed by taking one-half of the gross investment times carrying charges divided by total duct feet available for use. This formula is essentially equivalent to the FCC approach.

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[66] *New York Order on UNE Rates* at 154.

[67] *See 1986 Order*.

[68] *See 1989 Order*.

Q. You say the approach taken by the Commission in its 1989 Order is essentially equivalent to the FCC approach. Can you identify any differences?

A. Yes, there are a few. First, the FCC formula establishes an annual rate versus a semi-annual charge. Of course, it is a trivial matter to multiply the Commission formula by two in order to render the two approaches equivalent. Second, the FCC formula uses net investment versus gross investment, but again, the two approaches can be made equivalent, in this case, by restating carrying charges as a percentage of gross investment.[69] Third, as detailed above, the FCC formula provides for a specific adjustment to reflect the percentage of duct space being occupied by an individual attacher, whereas the Commission formula does not.

Q. What is the significance of this latter adjustment?

A. As discussed above, the FCC formula originally presumed that an attacher occupies only half of a duct. Accordingly, under the original FCC formula, the measure of conduit capacity occupied by an attacher is reduced by one-half, as is the applicable maximum rate. More recently, the FCC (while retaining the half-duct convention as a rebuttable presumption) revised its formula to explicitly account for installation of innerduct, in which case the attacher may occupy even less than one-half of usable duct space and therefore pay a rate less than one-half the full duct rate. As mentioned above, the New

[69] *See April 2000 Pole Order* at ¶ 11, wherein the FCC reiterated its preference for the use of net figures, but indicated its willingness to allow the use of gross book costs where parties to a complaint have agreed to use such figures, and where all carrying charge elements are calculated using gross book costs.

York Public Service Commission recently concurred with the FCC's reasoning that the presence of innerduct effectively rebuts the presumption of half-duct occupancy.[70]

The formula used by the Commission in 1989, on the other hand, applies no such adjustment, either on a half-duct or partial innerduct basis. Rather, as described above, under the Commission's formula, the rate is derived simply by taking the gross cost of conduit and dividing by total duct feet available. The Commission's formula thus has the affect of assuming an attacher occupies a full duct. Accordingly, the rate derived under the Commission's formula would be twice the rate that would be derived under the FCC formula using the half-duct convention, or greater than half in those situations where inner duct was installed.

Q. Is an adjustment reflecting a cable operator's actual occupancy of duct space, such as incorporated in the FCC formula, incompatible with the Commission's formula?

A. No, there is nothing the least bit incompatible about an adjustment to reflect a cable operator's actual occupancy of duct space. The Commission's formula explicitly accounted for the amount of conduit capacity occupied by an attacher by dividing conduit cost by the number of total duct feet available for use. The FCC's adjustment is simply a refinement of this concept that reflects what is well known in the industry today based on existing technology and engineering practices, namely that attachers do **not** occupy a full duct, nor

[70] *New York Order on UNE Rates* at 160.

does their occupancy in any way preclude the ILEC from using available capacity in a duct occupied by an attacher.

Indeed, the FCC's half-duct convention for conduit rental was established in a 1996 proceeding a decade after the Commission's formula was established[71] and was itself modeled after a rate formula adopted by the Massachusetts Department of Public Utilities (since renamed Massachusetts Department of Telecommunications and Energy or DTE) in 1992 in one of the few contested cases involving conduit rental.[72] In that case, the Massachusetts DTE soundly rejected the ILEC's substantially above-cost conduit rates, and instead set rates by analogy to the FCC's own pole attachment formula, modified to include the "half-duct" convention to reflect that cable operators do not occupy the entirety of the typical duct.[73]

The standard applied by the Commission in its 1989 order is that the rates be just and reasonable.[74] At that time, the Commission noted "there is no evidence which otherwise indicates that C&P's agreement is not just and reasonable."[75] Evidence subsequently available from the Massachusetts DTE proceeding, and the various FCC and state

[71] *See In the Matter of Multimedia Cablevision, Inc., Complainant v. Southwestern Bell Telephone Company, Respondent*, 11 FCC Rcd 11202, 1996 FCC LEXIS 6119, ¶ 22 (1996).

[72] *Greater Media, Inc. v. New England Telephone and Telegraph*, Mass. D.P.U. 91-218 (Apr. 17, 1992). In the Greater Media case, the Massachusetts DTE obtained documents in discovery that demonstrated that NYNEX (now d/b/a Verizon-Massachusetts) had knowingly established conduit rents at well above costs specifically because of NYNEX's concerns over cable competition. *See* Memorandum re: Meeting with AT&T Co. to discuss pricing policy recommended for pricing conduit rental for CATV operations at 1, ¶ 6 (January 19, 1981) (Exh. GM-8 p.11 – Docket 91-218).

[73] *Greater Media, Inc.* at 39-40 (Apr. 17, 1992); *Greater Media v. DPU*, 415 Mass. 409 at 1 (1993).

[74] *See 1989 Order* at 3.

[75] *Id.*

proceedings that followed it, however, now provide such evidence. Thus, in order to satisfy the Commission's standard of just and reasonable, the conduit rental rate would need to take into account existing innerduct technology, and the resultant fact that cable operators do not occupy the entirety of the typical duct, as now expressly reflected in the FCC formula.

Q. Ms. Kravtin, can you describe the rate setting methodology established by the Commission in its earlier (1986) Order?

A. As discussed earlier, in the 1986 Order, the Commission found cable to be a special class of customer that was entitled to its own distinct conduit rental rate. The Commission specifically rejected Verizon DC's (then dba as C&P) prospective cost approach as the basis of setting rates in favor of a rate set in a range between avoidable cost and fully allocated costs. The Commission set a conduit rental rate of $0.30 per foot per year (in between avoidable cost and a rate equal to 10% above avoidable cost). Following the three-year initial period, the Commission indicated its preference for the parties to reach a settlement on reasonable rental rates, but also noted its inclination "to use a fully allocated cost methodology which would not allocate spare conduit space to DCLP."[76] The Commission also noted that noncable services offered by DCLP should be charged at a rate equal to that charged other users.[77]

[76] *See 1986 Order* at 15.

[77] *Id*.

Q. Notwithstanding the fact the rate setting methodology established by the Commission in its 1986 Order was replaced by the methodology established by the Commission in its later (1989) Order, is there any aspect of the earlier order that you would like to address?

A. Yes, there is. The FCC has emphatically rejected the notion inherent in the Commission's 1986 Order, that once a cable operator offers noncable services, it should not be subject to the historic cost-based formula rate.[78] The FCC's reasoning on this issue was recently upheld by the United States Supreme Court (Court). In *NCTA vs. Gulf Power*, the Court held that the Pole Attachment Act "reaches 'any attachment by a cable television system'" and accordingly, that a cable operator continues to be a cable television system without regard to the services it chooses to provide.[79] In so ruling, the Court specifically found that the Pole Attachment Act applies to attachments by cable television systems that provide Internet service in addition to traditional cable service, without regard to the classification of the commingled cable modem service.[80]

Q. In upholding the FCC on this point, did the Court take into consideration new developments in technology and the deployment of advanced services?

A. Yes, it did. As found by the Court:

> [S]ubjecting [cable] attachments to monopoly pricing would appear to be fundamentally inconsistent with encouraging the deployment of cable modem service and promoting the development of the Internet.[81]

[78] *See Implementation of Section 703(e) of the Telecommunications Act of 1996, Amendment of the Commission's Rules and Policies Governing Pole Attachments*, Report and Order, 13 FCC Rcd 6777, 6794-96, ¶¶ 32, 34 (1998).

[79] 112 S.Ct. 782, 787 (2002).

[80] *Id*. at 786, 787-88, 789.

[81] *Id*. at 800 (Thomas, J., concurring).

Q. At the time of the Commission's 1986 Order, would these factors specifically referenced by the Court, i.e., encouraging the deployment of cable modem service and promoting the development of the Internet, have been taken into account by the Commission?

A. No, they would not. These factors are fairly new phenomenon and were given little prominence prior to the Act, and certainly were not even on the radar screen a decade prior when the Commission issued its Order. The Commission's decision to impose what amounts to a penalty on the cable operator for offering noncable services is simply not consistent with the current national public policy goal to promote the deployment of advanced technologies as found by the FCC and by the Court, or the expressed desire of District residents for advanced services.[82] Clearly, this particular aspect of the Commission's sixteen year old order - i.e., to charge a different, higher rate for conduit rental by the cable operator when used for "noncable" offerings (presumably including high-speed internet service provided by a cable modem) - is inconsistent with federal rules and regulations and decidedly not in the public interest. Accordingly, it should not be given any precedential value.

Q. Does that conclude your testimony at this time?

A. Yes.

[82] *See Final Report: District of Columbia Needs Assessment*, submitted by Institute for the Positive Use of Technology (InPUT) to Office of Cable Television & Telecommunications (OCTT) of the District of Columbia, 21 (Dec. 21, 2001) at http://octt.dc.gov/information/legal_docs/InPUT_2002_02_05_LINKS.pdf ("District residents have manifested strong interest in state-of-the-art cable technology in numerous ways, including by expressing strong interest in advanced services and technologies and various new service possibilities.").

Affidavit of Patricia D. Kravtin dated September 21, 2001

Exhibit 1 of Certified Formal Complaint dated September 21, 2001

Verizon NY Billing Letter dated May 2, 2002

Results of the FCC Formula Applied to Verizon DC's Conduit System

Verizon DC Responses to Comcast Data Requests

Verizon NY Responses to CTTANY Data Requests in NY UNE Proceeding

Before the
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION
Albany, New York 12223-1350

In the Matter of
THE CABLE TELEVISION & TELECOMMUNICATIONS ASSOCIATION OF NEW YORK, INC., *et al*.
Complainants,
***v*.**
VERIZON NEW YORK, INC.
Respondent.

Case Number _____

AFFIDAVIT OF
PATRICIA D. KRAVTIN

I, PATRICIA D. KRAVTIN, do declare and state as follows:

1. My name is Patricia D. Kravtin. My business address is 57 Phillips Avenue, Swampscott, Massachusetts. I am an economist in private practice specializing in the analysis of telecommunications regulation and markets.

2. I have testified or served as an expert on telecommunications matters in proceedings before over thirty state regulatory commissions, including the New York Public Service Commission "(Commission"), where I recently testified on the incumbent local exchange carrier's cost analysis for conduits in the Commission's Unbundled Network Elements (UNE) proceeding (Case No. 98-C-1357) on behalf of the Cable Television & Telecommunications Association of New York, Inc. I have also served as an expert in proceedings before the Federal Communications Commission ("FCC"), the Canadian Radio-television and Telecommunications Commission, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation before United States District Courts, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience in the field of telecommunications regulation and policy is attached as an Appendix to this Affidavit.

3. Over the past several years, I have been actively involved in a number of state regulatory commission proceedings involving cost methodologies (including TELRIC) and the allocation of costs of incumbent local exchange carriers. I have also been actively involved in proceedings, both at the state and federal level, concerning implementation issues in connection with the passage of the Telecommunications Act of 1996 ("the Act"). One local network component, essential for the provision of competitive communications services, with which I am also very familiar, is access to poles, ducts, conduits, and rights-of-way. In 1997, I submitted a declaration on pole attachment, conduits and rights-of-way issues in FCC CS Docket No. 97-98 on behalf of the National Cable Television Association, *et al*. I also testified on the incumbent local exchange carrier's cost analysis for pole attachments in TELRIC proceedings before the Georgia Public Service Commission (Docket 7061-U) on behalf of the Cable Television Association of Georgia, and before the South Carolina Public Service Commission (Docket No. 97-374-C) on behalf of the South Carolina Cable Television Association. Most recently, I testified before the District of Columbia Public Service Commission on behalf of Comcast Cablevision of the District, LLC on the economic and policy rationale for relying upon the FCC formula in setting rates for conduit rental in that jurisdiction instead of the rate proposal advanced by the incumbent local exchange carrier. I also more recently submitted a declaration before the FCC on behalf of Cavalier Telephone, LLC, regarding the economically appropriate recovery of pole attachment-related costs in a complaint filing involving Dominion Virginia Power.

4. This Affidavit presents specific results from application of the FCC pole rate formula to Verizon New York ("Verizon"), calculated using 2001 year-end data from the FCC ARMIS automated data reporting system. The purpose of this Affidavit is to demonstrate that the annual pole attachment rate charged to cable operators and telecommunications carriers by Verizon exceeds the maximum allowable rate permitted under the FCC formula, which has been adopted in New York by the Commission.[1] According to my calculations, the maximum just and reasonable rate that Verizon may charge cable operators and telecommunications carriers in New York is $4.53 (for solely owned poles),[2] yet Verizon's current rate is almost twice that much at $8.97.[3] Allowing Verizon to charge pole rates far above the maximum allowable rate could hinder broadband deployment and service innovation, and retard facilities-based competition overall, as discussed in further detail below.

I. The FCC Rate Formula And Methodology

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[1] *In the Matter of Certain Pole Attachment Issues Which Arose in Case No. 94-C-0085*, NY PUC LEXIS 364, *6 (June 17, 1997) (hereinafter "Opinion 97-10").

[2] *See* CTTANY's Verizon Pole Rate Calculation Spreadsheet, attached hereto as Exhibit A (hereinafter "Exh. A"). For those poles that Verizon owns jointly with another utility, the rate would be $2.27 (assuming 50% ownership). *Id*.

[3] *See* Tariff of Verizon New York, Inc.—PSC NY No. 1—Communications at Section 14, p. 3 (Effective Sept. 1, 2001).

A. The FCC Formula Is Reliable And Serves To Promote Facilities-Based Competition And Deployment of New Services

5. The FCC, and state and local regulatory bodies recognize that poles and conduits are "essential facilities" and thus, bottlenecks to facilities-based competition in telecommunications and cable television markets.[4] As a result, the pricing of pole attachments is regulated so that monopoly-owned facilities are available at just and reasonable rates and in order to promote competition.[5] The FCC formula, implemented pursuant to the Pole Attachments Act in 1978,[6] is a straightforward and economic approach for determining just and reasonable pole attachment rates using an historical cost methodology and publicly available data. The Pole Attachments Act, was the legislative response to substantial evidence of abuses experienced by cable operators at the mercy of electric and telephone utilities, like Verizon, including "exorbitant rental fees and other unfair terms."[7] The FCC formula has been successfully relied upon for over two decades and is used to formulate rates in the majority of states.[8]

6. In adopting the FCC formula in 1997, the Commission recognized that it was "promot[ing] greater certainty for service providers and better conditions for telecommunications competition," and, at the same time, "stimulat[ing] economic development," in New York.[9] Allowing Verizon to maintain pole rental rates that are double the maximum allowable rate, however, is both contrary to New York law and harmful to competition, including the deployment of broadband and other new services.

7. Cable operators represent the single most promising hope for facilities-based competition in local telecommunications for residential users. They are at the forefront of deploying new services, making major investments in infrastructure, and are fulfilling

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[4] *See Common Carrier Bureau Cautions Owners of Utility Poles*, 1995 FCC LEXIS 193, *1 (Jan. 11, 1995) ("Utility poles, ducts, and conduits are regarded as essential facilities, access to which is vital for promoting the deployment of cable television systems."). *See also National Cable & Telecomm. Ass'n v. Gulf Power Co.*, 122 S. Ct. 782, 784 (2002) (opining that cable companies have "found it convenient, and often essential, to lease space for their cables on telephone and electric utility poles. . . . Utilities, in turn, have found it convenient to charge monopoly rents.") (hereinafter "*Gulf Power*").

[5] *See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming*, 1998 FCC LEXIS140, **31 (Jan. 13, 1998) ("Wireline video and telecommunications competition is heavily dependent on the ability of market participants to obtain access to utility poles, conduits and rights of way at reasonable rates.").

[6] Pub. L. No. 95-234, 92 Stat. 35 (1978), *codified at* 47 U.S.C. § 224.

[7] *In the Matter of Implementation of Section 703(e) of The Telecommunications Act of 1996*, 16 FCC Rcd 12103 at ¶ 21 (May 25, 2001) (hereinafter "*May 25 Order*").

[8] Significantly, in addition to New York, since passage of the Act, every certified state that has considered its rate formula has shifted from its home-grown model to the national formula. *See, e.g., Order Instituting Rulemaking on the Commission's Own Motion Into Competition of Local Exchange Service*, R.95-04-043, I.95-04-044, Decision 98-10-058, 1998 Cal. PUC LEXIS 879 (Oct. 22, 1998); *Cablevision of Boston, et al. v. Boston Edison Co.*, Mass. DTE 97-82 (1998); *A/R Cable Serv's v. Mass. Elec. Co.*, Mass. DTE 98-52 (1998); *Consumers Power Co., et al.* MPSC Case Nos. U-10741, U-10816, U-10831, 1997 Mich. PSC LEXIS 26, at 27 (Feb. 11, 1997), *aff'd Consumers Energy Co. v. Mich. Pub. Serv. Comm'n*, No. 113689 (Mich. Sup. Ct. 1999).

[9] Opinion 97-10 at **9-10.

the overall competitive objectives of the Commission and the 1996 Telecommunications Act. They have introduced choice in dial-tone to residential customers and have, through cable modem service, provided broadband Internet options and spurred the incumbent telephone companies to offer DSL. Unfortunately, cable and telecommunications resources that could otherwise be directed towards developing and providing these and other new services, are instead currently being allocated towards paying Verizon's unjust and unreasonable pole attachment rents. [10]

B. Calculating A Maximum Just And Reasonable Rate In Accordance With The FCC Formula

8. Under the FCC formula, the maximum annual pole attachment rent is determined by multiplying the percentage of the total usable space occupied by the pole attachment by the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole.[11]

9. The first step in the FCC's rate methodology, as it applies to telephone utilities, is to calculate the utility's actual capital costs, based on booked costs as reported on ARMIS 43-02 and 43-08. For poles, the utility's capital cost is expressed as net pole investment, defined as gross pole investment, less accumulated depreciation for pole plant, less accumulated deferred taxes for poles. This generates the net investment in pole plant, which is then reduced by deducting the value (presumed to be 5% in the case of telephone utilities) of pole appurtenances from which cable operators derive no benefit (*e.g.*, cross-arms). This generates the net investment in "bare" pole plant, which is then divided by the statewide total of poles the utility has in service, producing a net cost per bare pole.

10. The next step is to calculate the carrying charges. The carrying charges are comprised of the maintenance expense, depreciation expense, administrative expense, taxes and overall rate of return, and are expressed as percentages of expense to plant in

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[10] In 2001, during a proceeding examining Verizon's rates for unbundled network elements, Verizon attempted to raise conduit rates substantially (between 621% and 1083%, depending on location), based on a forward-looking costing rate methodology. The Commission rejected Verizon's approach and instead concluded that Verizon's conduit rates should be set, following the FCC's method, on the basis of historical costs, consistent with Opinion 97-10. *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case 98-C-1357, Order on Unbundled Network Elements at pp. 149-154 (NYPSC Jan. 2002). Like the Commission's decision with respect to Verizon's conduit rates, Verizon's pole rate must also be set no higher than the maximum allowable rate in accordance with the FCC formula as implemented in New York. Such consistent treatment of conduit and poles is not only appropriate pursuant to Opinion 97-10, but will also serve the state's policy goals of promoting CLEC competition and the deployment of new cable services by lowering the costs that attaching entities must allocate for pole rents. Monopoly pricing of pole attachments also contravenes Congress' "instruction to the FCC to 'encourage the deployment' of broadband Internet capability and, if necessary, 'to accelerate deployment of such capability by removing barriers to infrastructure investment.'" *Gulf Power*, 122 S. Ct. at 789 (internal citations omitted).

[11] 47 U.S.C. § 224(d). *See also May 25 Order* at Appendix D-1 (May 25, 2001) (setting forth the specific formulas and ARMIS accounts to be used when calculating the pole rate for LECs).

service. The sum of the carrying charges is then multiplied by the net cost per bare pole. This produces an annual carrying cost per pole.

11. The "use ratio" must then be computed. Attaching parties only pay for a proportional percentage of the pole plant they actually use in relation to the amount of "usable space" on the pole. The use ratio is therefore expressed as the portion of space occupied by an attachment divided by the "usable space" on a utility pole. FCC rules presume that cable and telecommunications attachers occupy one foot of space on a utility pole.[12] It is also presumed that an average utility pole is 37.5 feet tall and has an average of 13.5 feet of usable space.[13] The presumed use ratio is therefore 1/13.5 or 7.41%.

12. As a final step, the net cost per bare pole, the annual carrying charges and the use ratio are multiplied to formulate the maximum allowable pole rental rate. Expressed as an equation, the FCC formula is as follows:

$$\textbf{Maximum Rate} = \frac{\textbf{Space Occupied}}{\textbf{Total Usable Space}} \times \textbf{Carrying Charges} \times \textbf{Net Bare Pole Cost}$$

II. The FCC Rate Formula And Methodology As Applied To Verizon

13. By performing the following calculations in accordance with the FCC's rate methodology described above, I determined that the maximum allowable rate that Verizon may charge attachers in New York is $4.53.[14]

A. Net Investment In Bare Pole

14. To determine the net investment in a "bare" pole, I took Verizon's gross pole investment (ARMIS Account 2411) less accumulated depreciation for pole plant (ARMIS Account 3100, Line 390) less accumulated deferred taxes for poles, which I derived (share of ARMIS Accounts 4100 and 4340, prorated to poles (the ratio of ARMIS Account 2411 to 2001)), thus generating the net investment in pole plant. I then reduced the net investment by deducting 5% to account for non-cable related appurtenances, producing the net investment in "bare" pole plant. Next, I divided that figure by the

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[12] *See In the Matter of Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Mem. Op. and Second Report and Order, 72 FCC 2d 59 at ¶¶ 69-70 (May 23, 1979) (establishing a rebuttable presumption of one foot). *See also Petition to Adopt Rules Concerning Usable Space on Utility Poles*, FCC 84-325 at ¶ 10 (July 25, 1984) (affirming presumption); *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, 15 FCC 6453 at ¶ 19 (Apr. 3, 2000) (same).

[13] Based on National Electrical Safety Code guidelines and data received during rulemaking proceedings, and "[t]o avoid a pole by pole rate calculation, the Commission adopted rebuttable presumptions of (1) an average 37.5 foot pole height; (2) 13.5 feet of usable space; and (3) one foot as the amount of space a cable television attachment occupies." *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, Report and Order, 15 FCC Rcd 6453 at ¶ 16 (Apr. 3, 2000).

[14] *See* Exh. A at line 5.

statewide total of poles the utility has in service (ARMIS Account 430), producing a net cost per bare pole of $98.13.[15]

B. Carry Charges

15. Next, I calculated the Maintenance, Depreciation, Administrative, Taxes and Return elements of the carrying charge rate.

1. Maintenance

16. The Maintenance element of the carrying charges is determined by taking the chargeable maintenance expenses in ARMIS Account 6411 (or Account 6411 – pole rental expense)[16] and dividing that by net pole investment, for a total of 4.81% in this case.[17]

2. Depreciation

17. To determine the depreciation rate applied to net pole plant, I performed a gross to net adjustment by dividing gross investment in pole plant (Account 2411) by net investment in pole plant (calculated as described above) and multiplied that figure by the depreciation rate for poles prescribed for Verizon by the FCC, for a total of 31.69%.[18]

3. Administrative

18. In order to calculate the Administrative element of the carrying charge rate, I divided the total administrative and general expenses (ARMIS Account 6710 + Account 6720) by the net plant in service, determined by taking the gross plant investment (ARMIS Account 2001), less depreciation for total plant (ARMIS Account 3100, Line 490), less accumulated deferred taxes for total plant (ARMIS Account 4100 + Account 4340), for a total of 11.16%.[19]

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[15] *See id*at line 16.

[16] The FCC requires that telephone utilities exclude pole rental expenses paid to third parties from maintenance Account 6411. Those rental expenses have not been itemized in the ARMIS 43-02 since 1999, however, so it was necessary to prorate 2001 rental expenses using 1999 data. Pole rental expenses will once again be itemized in ARMIS beginning in April 2003.

[17] *See id.* at line 23.

[18] *See id*. at line 30. Verizon's prescribed depreciation rate for poles is found at *In the Matter of The Prescription of Revised Percentages of Depreciation pursuant to the Communications Act of 1934, as amended for: The Bell Telephone Co. of Penn., et al*., FCC 93-40, Memorandum Opinion and Order, Appendix p. 12 (setting forth the "Schedule for Annual Percentages of Depreciation for NEW YORK TELEPHONE COMPANY") (rel. Jan. 15, 1993).

[19] *See id*. at line 43.

4. Taxes

19. The Taxes element is determined by dividing the normalized tax expense (ARMIS Account 7200) by net plant in service (determined as set forth above in the Administrative element section), for a total of 3.42%.[20]

5. Rate of Return

20. Finally, I applied the FCC's default rate of return of 11.25%.[21]

6. Total Carrying Charges

21. Adding the carrying charge percentages together yields a total carrying charge percentage of 62.33%.[22]

III. Maximum Allowable Rate

22. Applying the various elements identified above, the maximum allowable rate that Verizon may charge attaching parties is $4.53, expressed formulaically as:

Maximum Rate = $98.13 (Net Investment Per Bare Pole) * 62.33% (Carrying Charges) * 7.41% (Use Ratio) = $4.53

Conclusion

23. Verizon's current rate of $8.97 is $4.44 higher than the maximum rate permitted under the FCC pole formula and New York law and is therefore unjust and unreasonable. Adjusting Verizon's pole rate to reflect the maximum allowable rate would not only be consistent with the Commission's decision to adopt the federal cable rate formula, but would also serve the important state and federal policy goals of encouraging telecommunications competition and broadband deployment.

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[20] *See id*. at line 51.
[21] *See id*. at line 54.
[22] *See id.* at line 56.

_____

Patricia D. Kravtin

Sworn to before me this
_____ day of _____, 2002.

_____
Notary Public of the
Commonwealth of Massachusetts

My Commission Expires _____

Patricia D. Kravtin

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Swampscott, MA 01907
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Summary

Consulting economist with specialization in telecommunications and energy markets. Extensive knowledge of complex economic, policy and technical issues facing incumbents, new entrants, regulators, investors, and consumers in rapidly changing telecommunications, cable, and energy markets. Oriented toward competitive, open-market strategies that carefully balance interests of major stakeholders.

Experience

CONSULTING ECONOMIST

2000–Present Independent Consulting Swampscott, MA

- Providing expert witness services and full range of economic, policy, and technical advisory services in the telecommunications and energy fields.

1982–2000 Economics and Technology, Inc. Boston, MA

SENIOR VICE PRESIDENT/SENIOR ECONOMIST

- Active participant in regulatory proceedings in over thirty state jurisdictions, before the Federal Communications Commission, Federal Energy Regulatory Commission, and other international regulatory authorities on telecommunications and energy matters.

- Led analysis of wide range of issues related to rates/rate structure, cost methodologies and functionalization, productivity/cost benchmarking, business case studies, local and long distance competition in telecommunications, electric industry restructuring, incentive or performance based regulation, universal service, access charges, and deployment of advanced services and broadband technologies.

- Served as advisor to state regulatory agencies, assisting in negotiations with utilities, non-partial review of record evidence, deliberations and drafting of final decisions.

- Provided expert witness and technical advisory services to a diverse set of public and private sector clients before state and federal regulatory agencies, and before U.S. district court.

- Extensive cable television regulation expertise in connection with implementation of the Cable Act of 1992 and the Telecommunications Act of 1996 by the Federal Communications Commission and local franchise authorities.

- Author of numerous industry reports and papers on topics including market structure and competition, alternative forms of regulation, patterns of investment, telecommunications modernization, and broadband deployment.

- Invited speaker before various national organizations, state legislative committees and participant in industry symposiums.

1978–1980 Various Federal Agencies Washington, DC

RESEARCH/POLICY ANALYST

- Prepared economic impact analyses related to allocation of frequency spectrum (Federal Communications Commission).

- Performed financial and statistical analysis of the effect of securities regulations on the acquisition of high-technology firms (Securities and Exchange Commission).

- Prepared analyses and recommendations on national economic policy issues including capital recovery. (U.S. Dept. of Commerce).

Education

1980–1982 Massachusetts Institute of Technology Boston, MA

- Graduate Study in the Ph.D. program in Economics (Abd). General Examinations passed in fields of Government Regulation of Industry, Industrial Organization, and Urban and Regional Economics.

- National Science Foundation Fellow.

1976–1980 George Washington University Washington, DC

- B.A. with Distinction in Economics.

- Phi Beta Kappa, Omicron Delta Epsilon in recognition of high scholastic achievement in field of Economics. Recipient of four-year honor scholarship.

Prof. Affiliation

American Economic Association

Reports and Studies

(authored and co-authored)

"Assessing SBC/Pacific's Progress in Eliminating Barriers to Entry, The Local Market in California is Not Yet 'Fully and Irreversibly Open," prepared for the California Association of Competitive Telecommunications Companies (CALTEL), August 2000.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" prepared for The Division of Public Utilities, March, 2000.

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"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990.

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990.

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990.

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, Virginia, December 1988.

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society at MIT, July 1988.

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988.

"Impact of Interstate Switched Access Charges on Information Service Providers - Analysis of Initial Comments," submitted in FCC CC Docket No. 87-215, October 26, 1987.

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"BOC Market Power and MFJ Restrictions: A Critical Analysis of the 'Competitive Market' Assumption," submitted to the Department of Justice, July 1986.

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2002

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2001

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2000

Before the **Puerto Rico Telecommunications Regulatory Board**, in *AT&T of Puerto Rico, Inc. et al v. Puerto Rico Telephone Company, Inc.,Re: Dialing Parity,* Docket Nos. 97-Q-0008, 98-Q-0002*,* on behalf of Lambda Communications Inc., cross-examination October 19-20, 2000.

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1999

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1998

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1997

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Before the **State Corporation Commission of Kansas**, in *Re: In the Matter of and Investigation to Determine whether the Exemption from Interconnection Granted by 47 U.S.C. 251(f) should be Terminated in the Dighton, Ellis, Wakeeney, and Hill City Exchanges*, Docket No. 98-GIMT-162-MIS, on behalf of classic Telephone, Inc., filed October 23, 1997.

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1996

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Before the **United States District Court for the Eastern District of Tennessee at Greeneville**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, CIV 2-93-55, filed December 7, 1996.

1995

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Before the **US District Court of Tennessee**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, 2-93-55, Class Action, filed June 12, 1995.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of SNET Company for approval to trial video dial tone transport and switching*, 95-03-10, on behalf of New England Cable TV Association, filed May 8, 1995, cross-examination May 12, 1995.

Before **Canadian Radio-Television and Telecommunications Commission**, in *Re: CRTC Order in Council 1994-1689*, Public Notice CRTC 1994-130 (Information Highway), filed March 10, 1995.

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C- 6958, on behalf of Hawaii Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of the California Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Florida's Section 214 Application to Provide Video Dialtone in the Pinellas County and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Virginia's Section 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6956, on behalf of Virginia Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

1994

Before the **Federal Communications Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed December 22, 1994 (Reply to Supp. Responses).

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Before the **Federal Communication Commission**, in *Re: Carolina Telephone's Section 214 Application to provide Video Dialtone in areas of North Carolina*, W-P-C 6999, on behalf of North Carolina Cable TV Association, filed October 20, 1994, reply November 8, 1994.

Before the **Federal Communication Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed September 8, 1994, reply October 3, 1994.

Before the **California Public Utilities Commission**, in *Re: Petition of GTE-California to Eliminate the Preapproval Requirement for Fiber Beyond the Feeder*, I.87-11-033, on behalf of California Bankers Clearing House, County of LA, filed August 24, 1994.

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Before the **Federal Communications Commission**, in *Re: Bell Atlantic Telephone Companies Section 214 Application to provide Video Dialtone within their Telephone Services Areas*, W-P-C 6966, on behalf of Mid Atlantic Cable Coalition, filed July 28, 1994, reply August 22, 1994.

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Before the **Federal Communications Commission**, in *Re: SNET's Section 214 Application to provide Video Dialtone in Connecticut*, W-P-C 6858, on behalf of New England Cable TV Association, filed January 20, 1994, reply February 23, 1994.

1993

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Before the **Federal Communications Commission**, in *Re: NJ Bell's Section 214 Application to provide Video Dialtone service within Dover Township, and Ocean County, New Jersey*, W-P-C-6840, on behalf of New Jersey Cable TV Association, filed January 21, 1993.

1992

Before the **New Jersey Board of Regulatory Commissioners**, in *Re: NJ Bell Alternative Regulation*, T092030358, on behalf of NJ Cable TV Association, filed September 21, 1992.

Before the **New Hampshire Public Utilities Commission**, in *Re: Generic competition docket*, DR 90-002, on behalf of Office of the Consumer Advocate, filed May 1, 1992, reply July 10, 1992, Surrebuttal August 21, 1992.

Before the **New Jersey General assembly Transportation, Telecommunications, and Technology Committee**, *Concerning A-5063*, on behalf of NJ Cable TV Association, filed January 6, 1992.

1991

Before the **New Jersey Senate Transportation and Public Utilities Committee**, in *Re: Concerning Senate Bill S-3617*, on behalf of New Jersey Cable Television Association, filed December 10, 1991.

Before the **119th Ohio General Assembly Senate Select Committee on Telecommunications Infrastructure and Technology**, in *Re: Issues Surrounding Telecommunications Network Modernization*, on behalf of the Ohio Cable TV Association, filed March 7, 1991.

Before the **Tennessee Public Service Commission**, in *Re: Master Plan Development and TN Regulatory Reform Plan*, on behalf of TN Cable TV Association, filed February 20, 1991.

1990

Before the **Tennessee Public Service Commission**, in *Re: Earnings Investigation of South Central Bell,* 90-05953, on behalf of the TN Cable Television Association, filed September 28, 1990.

Before the **New York Public Service Commission**, in *Re: NYT Rates, 90-C-0191, on behalf of User Parties NY Clearing House Association*, filed July 13, 1990, Surrebuttal July 30, 1990.

Before the **Louisiana Public Service Commission,** in *Re: South Central Bell Bidirectional Usage Rate Service*, U-18656, on behalf of Answerphone of New Orleans, Inc., Executive Services, Inc., King Telephone Answering Service, et al, filed January 11, 1990.

1989

Before the **Georgia Public Service Commission**, in *Re: Southern Bell Tariff Revision and Bidirectional Usage Rate Service*, 3896-U, on behalf of Atlanta Journal Const./Voice Information Services Company, Inc., GA Association of Telemessaging Services, Prodigy Services, Company, Telnet Communications, Corp., filed November 28, 1989.

Before the **New York State Public Service Commission**, in *Re: NYT Co. - Rate Moratorium Extension - Fifth Stage Filing*, 28961 Fifth Stage, on behalf of User Parties NY Clearing House Association Committee of Corporate Telecommunication Users, filed October 16, 1989.

Before the **Delaware Public Service Commission**, in *Re: Diamond State Telephone Co. Rate Case*, 86-20, on behalf of DE PSC, filed June 16, 1989.

Before the **Arizona Corporation Committee**, in *Re: General Rate Case*, 86-20, on behalf of Arizona Corporation Committee, filed March 6, 1989.

1988

Before **New York State Public Service Commission**, in *Re: NYT Rate Moratorium Extension*, 28961, on behalf of Capital Cities/ ABC, Inc., AMEX Co., CBS, Inc., NBC, Inc., filed December 23, 1988.

1989

Before **Rhode Island Public Utilities Commission**, in *Re: New England Telephone*, 1475, on behalf of RI Bankers Association, filed August 11, 1987, cross-examination August 21, 1987.

Before the **New York State Public Service Commission**, in *Re: General Rate Case Subject to Competition*, 29469, on behalf of AMEX Co., Capital Cities/ ABNC, Inc., NBC, Inc., filed April 17, 1987, cross-examination May 20, 1987.

Before the **Minnesota Public Utilities Commission**, in *Re: Northwestern Bell*, P-421/ M-86-508, on behalf of MN Bus. Utilities Users Counsel, filed February 10, 1987, cross-examination March 5, 1987.

1986

Before the **Kansas Public Utilities Commission**, in *Re: Southwestern Bell*, 127, 140-U, on behalf of Boeing Military, et al., filed August 15, 1986.

1985

Before the **Washington Utilities and Transportation Commission**, in *Re: Cost of Service Issues bearing on the Regulation of Telecommunications Company*, on behalf of US Department of Energy, filed November 18, 1985 (Reply Comments).

1984

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 83-213, on behalf of Staff, ME PUC, filed February 7, 1984, cross-examination March 16, 1984.

Before the **Minnesota Public Service Commission**, in *Re: South Central Bell*, U-4415, on behalf of MS PSC, filed January 24, 1984, cross-examination February 1984.

1983

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8847, on behalf of KY PSC, filed November 28, 1983, cross-examination December 1983.

Before the **Florida Public Service Commission**, in *Re: Southern Bell Rate Case*, 820294-TP, on behalf of Florida Department of General Services, FL Ad Hoc Telecommunications Users, filed March 21, 1983, cross-examination May 5, 1983.

1982

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 82-142, on behalf of Staff, ME PUC, filed November 15, 1982, cross-examination December 9, 1982.

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8467, on behalf of the Commonwealth of Kentucky, cross-examination August 26, 1982.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of Florida Cable Telecommunications Association, Inc.; Comcast Cablevision of Panama City, Inc.; Mediacom Southeast, L.L.C.; and Cox Communications Gulf, L.L.C., Complainants, v. Gulf Power Company, Respondent.	EB Docket No. 04-381

PRE-FILED DIRECT TESTIMONY OF PATRICIA D. KRAVTIN

On behalf of Complainants

March 31, 2006

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PRE-FILED DIRECT TESTIMONY OF
PATRICIA D. KRAVTIN

INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.

A. My name is Patricia D. Kravtin. I am an economist in private practice specializing in the analysis of telecommunications, cable, and energy regulation and markets. My business address is 57 Phillips Avenue, Swampscott, Massachusetts.

Experience and Qualifications

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I received a B.A. with Distinction in Economics from the George Washington University. I studied in the Ph.D. program in Economics under a National Science Foundation Fellowship at the Massachusetts Institute of Technology (M.I.T.). My fields of concentration at M.I.T. were government regulation of industry, industrial organization, and urban and regional economics.

My professional background includes a wide range of consulting experiences in regulated industries. Between 1982 and 2000, I was a consultant at the national economic research and consulting firm of Economics and Technology, Inc. (ETI) in that firm's regulatory consulting group, where I held positions of increasing responsibility, including Senior Vice President/Senior Economist.

Upon leaving ETI in September 2000, I began my own consulting practice specializing in telecommunications, cable, and energy regulation and markets. I have testified or served as an expert witness on telecommunications matters in proceedings before over thirty

state, provincial, and federal regulatory commissions, including the Federal Communications Commission ("FCC" or "Commission"), the Federal Energy Regulatory Commission ("FERC"), and the Canadian Radio-television and Telecommunications Commission ("CRTC").

In addition, I have testified as an expert witness in litigation before United States District Court. I have served as an expert on matters relating to Section 253 of the Telecommunications Act ("Removal of Barriers to Entry") before the United States District Court for the Eastern District of New York, the Northern District of New York, and the Southern District of California. I have also testified before the United States District Court for the Eastern District of Tennessee in antitrust cases relating to telecommunications competition and market power. I have also testified before a number of state legislative committees and served as advisor to a number of state regulatory agencies.

Of particular relevance to this proceeding, I have testified as an expert on pole attachment and other related matters before various municipal, state, provincial, and federal agencies, including this Commission, on numerous occasions.

Q. HAVE YOU PREPARED A DETAILED SUMMARY OF YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A. Yes. A detailed resume summarizing my training, previous experience, and prior testimony and reports is provided as Attachment 1 to this testimony.

Q. WHAT HAVE YOU RELIED UPON IN PREPARING THIS TESTIMONY?

A. I have relied on my education, training, research, and experience in economic analysis, and my prior experience in the areas of telecommunications and utility regulation as outlined in Attachment 1. I have considered various data and information in forming my opinions, including publicly available documents, case pleadings, and materials produced in the discovery taken in this matter. A list of the materials I have considered in preparation of this direct testimony is presented as Attachment 2 to this testimony.

Q. UNDER WHAT TERMS ARE YOU BEING COMPENSATED FOR THIS TESTIMONY?

A. I am being compensated for the time I spend on this matter at my standard rate of $325 per hour. I will also be reimbursed for any travel and miscellaneous out-of-pocket expenses incurred in connection with this litigation. My compensation is not contingent on the outcome of this litigation or my analysis.

Assignment and Purpose of Testimony

Q.DESCRIBE YOUR ASSIGNMENT AND THE PURPOSE OF YOUR TESTIMONY?

A. I was asked by counsel for the Florida Cable Telecommunications Association ("FCTA") to review materials relating to Gulf Power Company's ("Gulf Power" or "the utility") claim for additional compensation for member attachments to Gulf Power poles. As part of my assignment, I was asked to assess the validity of Gulf Power's claims in accordance with established economic and public policy principles, and in the context of the Eleventh Circuit Court's *Alabama Power Company* ("*Alabama Power*" or "*APCo*") decision.

Summary of Testimony

Q. COULD YOU PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.

A. On March 3, 2006, I submitted a Summary Expert Report, which as its caption indicates, provided a summary of the testimony I am presenting in this case. While I will not duplicate that detailed summary here, highlighted below are the key points presented in my testimony regarding Gulf Power's claims for "just compensation" rates in excess of marginal cost pursuant to the Eleventh Circuit Court's *Alabama Power* decision.

- Gulf Power's proposed "just compensation" rates have no relation to the fundamental economic principles of cost causation embodied in Section 224 of the Communications Act, the practical and economic realities of poles, or to the purported basis for Gulf Power's claims in this proceeding, i.e., the *APCo* criteria for seeking just compensation in excess of marginal cost (i.e., demonstration of both full capacity and lost opportunity on a pole specific basis).

- Gulf Power's proposed "just compensation" rates - which exceed rates derived from the FCC Cable Formula by a factor of eight or more - are based on a replacement cost methodology that has no relation to the actual costs of hosting a pole attachment. Gulf Power's replacement costs are essentially reincarnations of the hypothetical "replacement" costs soundly rejected by the Commission and Courts in the past. Gulf Power's calculations are more accurately described as another attempt to manipulate the existing FCC formula methodology to produce a higher rate result than as a meaningful response to the *APCo* criteria.

- By Gulf Power's own admission, its proposed replacement cost rates are designed to reflect elements of "value" to the taker (versus loss to the owner) in direct violation of the legal principle of just compensation set forth in the *APCo* decision.

- Gulf Power also appears to justify its claim for "just compensation" rates based on replacement costs on its "lost opportunity" to "exclude" attachers from poles and the associated value or "higher value use" of exclusion. As recognized in *APCo*, the power company cannot validly point to its inability to charge the government, or by extension, an attacher, a higher "full market price" as a lost opportunity. Gulf Power is being compensated for the value of exclusion by the designation of third party attachments to Gulf Power's poles as a "taking" for which Gulf Power is receiving "just compensation."

- As found in *APCo*, marginal costs (and the FCC Cable Formula rates which in combination with applicable make-ready charges "provides for much more than marginal costs") provide Gulf Power "just compensation" for use of its poles. No additional compensation is therefore necessary, or as I understand it, permitted pursuant to *APCo*, except under the limited circumstances where the utility can demonstrate both full capacity and lost opportunity on a per pole basis. If a pole is not full, no additional compensation is allowed. Similarly, if a pole is full but there is no lost opportunity, there is no additional compensation allowed.

- Even if Gulf Power had a legitimate claim for additional compensation for individual poles pursuant to *APCo* - i.e., it was able to demonstrate both full capacity and lost opportunity for those poles, that additional compensation is not properly based on the value of exclusion or any other proxy for value to the attacher. This would include, for example, the "value" associated with the hypothetical avoided cost to the attacher of stand alone pole construction or underground installation. But for the utility's monopoly ownership of poles, Gulf Power would not be in a position to extract such "value" from attachers, and the setting of just compensation to include such "value" is inconsistent with economic principles of cost causation and economic efficiency and the legal principle of takings.

- The only poles for which Gulf Power could even arguably seek a rate based on a new pole replacement cost would be poles that would not have been replaced *but for* an additional attachment and as to which costs Gulf Power had not already been reimbursed through make-ready charges or rental rates paid by the additional attacher. Even then, under the terms of the *APCo* decision, any reimbursement over and above marginal cost would need be tied to actual showing of *both* full capacity and lost opportunity on an individual pole basis, neither of which in my opinion Gulf Power has demonstrated in this case.

- A pole satisfies the condition of full capacity in the economic sense only in those limited situations where capacity on the pole is truly "rivalrous" or "zero sum," meaning that the power company actually has to displace an existing attachment or turn away a new attachment in order to accommodate another attachment or use.

- From an economics perspective, a true situation of full capacity would occur only in those instances where make-ready or pole change-outs cannot practically occur due to terrain, obstructions, or zoning restrictions. It makes no economic sense to say a pole is at full capacity if, by doing nothing other than act in accordance with normal and customary business practices including make-ready, rearrangements and pole change-outs, Gulf Power has not, or does not have to displace or turn away attachments in order to accommodate

another. Simply put, there is no rivalrous or exclusion condition in such a situation.

- That Gulf Power may deny access for reasons of "insufficient capacity" does not affect this fundamental economic reality of full capacity. Moreover, Gulf Power's ability to deny under Section 224 is not absolute; it must be agreed upon and carried out on a non-discriminatory basis. Since Gulf Power routinely performs make-ready, rearrangements, and pole change-outs for itself, its joint pole owners, and other third-party attachers, it would seem Gulf Power would not be able to refuse to perform make-ready at its own unfettered discretion and for the sole purpose of being able to charge a higher "just compensation" rate to a particular class of (cable) attachers.

- A pole satisfies the condition of lost opportunity in the economic sense only in those limited situations where the utility experiences actual foregone revenue, foreclosed opportunity, or tangible cost consequence. It makes no economic sense to say there Gulf Power has experienced a lost opportunity in a hypothetical context, if in reality, Gulf Power has experienced none of the above, or in fact, has actually received a benefit from a third party attachment through additional rental revenues or increased pole plant asset values.

- Gulf Power's pleadings and discovery responses talk only in terms of generic or hypothetical "lost opportunity" based on the fallacy that the pole is or was "full" at some point in time. To my knowledge, Gulf Power has presented no evidence of actual situations where an attacher or use was kept off any pole or that Gulf Power experienced a tangible loss or cost consequence as a result.

- Gulf Power argues, as a general proposition, that evidence of make-ready work (either prospective or performed in the past) in order to accommodate an additional attachment is itself demonstration of the conditions of full capacity and lost opportunity. Gulf Power's argument is inherently illogical and ignores the dynamic state-of-being inherent to poles, namely the ability to harness greater effective pole capacity in the present time frame. Make-ready is the vehicle by which Gulf Power has been able to accommodate an additional pole attachment. Through the normal and customary business practices of make-ready, rearrangements (which would include the correction of code violations), and pole change-out, Gulf Power has historically been able to accommodate an additional attacher. No exclusion or rivalrous condition on the pole – the condition required for demonstration of full capacity on the pole – can meaningfully exist if the additional attacher is or can be readily accommodated on the pole. Nor is there an identifiable foreclosed opportunity or foregone revenues (lost opportunity), since Gulf Power is reimbursed by the attaching party for any cost incurred in that endeavor and receives the benefit of a future stream of rental revenues. As noted above, Gulf Power's ability to deny access on grounds of "insufficient capacity" is not relevant to the underlying economics of the situation, and it would seem Gulf Power would not be able to

refuse to perform make-ready at its own unfettered discretion and for the sole purpose of being able to charge a higher "just compensation" rate to cable attachers.

- Similarly, if Gulf Power was (or is) able to accommodate another attachment or use of its own without having to perform make-ready or pole change-out work, then there is neither a rivalrous condition on the pole (full capacity), nor an identifiable foreclosed opportunity or foregone revenues (lost opportunity). Under either the make-ready or no make-ready scenarios, Gulf Power and its electric ratepayers are decidedly not worse off because of an additional attachment (the economic standard for cross-subsidization); indeed they stand to gain. In the parlance of the *APCo* decision, Gulf Power is not out any money after the "taking" of pole space and there can be no valid claim for additional compensation.

- The only situations in which Gulf Power can legitimately satisfy the dual conditions of full capacity and lost opportunity consistent with the economic reality standard inherent in *APCo* and on that basis seek additional compensation are the following limited cases where the utility can demonstrate both: (1) make-ready or pole change-out is not possible for a given pole (again due to terrain, obstructions, or zoning restrictions) based on valid engineering considerations and adherence to industry best practices of pole utilization; *and* (2) tangible lost opportunity in the form of actual foregone revenues or an actual foreclosed opportunity for that pole based on valid economic analysis, such as the kind of net present value analysis common in business case planning and the government franchise application review.

- A valid economic demonstration of lost opportunity would require quantifiable and verifiable estimation of the differential between the revenues Gulf Power would have received from the presently attached cable company (who would necessarily have to be replaced by the new attachment to satisfy the full capacity prong of the *APCo* test) including rental rates and make-ready charges as compared with the revenues Gulf Power could reasonably expect to receive over some reasonable planning period (properly discounted to a present value basis) either from the new attacher or from a higher value use of its own. To be valid, the economic analysis demonstrating lost opportunity cannot be based on hypothetical assumptions. It must be based on real world factors and considerations that realistically compare the net revenue streams Gulf Power could reasonably expect to receive from the new attacher vis-à-vis the existing cable operator. It is within the realm of possibility that an objective analysis would find the net present value of revenues Gulf Power could reasonably expect to receive from the existing cable attacher could actually exceed those from the new attacher - in which case, there would be no quantifiable lost opportunity.

- Gulf Power suggests evidentiary standards for demonstrating the dual conditions of full capacity and lost opportunity on a per pole basis, such as I've delineated, are unduly burdensome. In making such an argument, Gulf Power ignores the fact that it is already receiving from Complainants "just compensation" in excess of marginal cost in the form of the FCC Cable Formula rates (Complainants are actually paying rental rates in excess of the FCC Cable Formula rate) and applicable make-ready charges. Under *APCo*, the utility is permitted to seek alternative just compensation in excess of marginal cost only in those instances where there is a verifiable lost opportunity. For the reasons set forth in this testimony, the standards for Gulf Power's showing that I have delineated are no more than that required to ensure economically meaningful satisfaction of the *APCo* criteria.

- If the evidentiary standards to which Gulf Power is to be held are not tied to objective, verifiable, economically meaningful, and non-discriminatory standards, Gulf Power will be in a position to exploit its monopoly ownership of the poles, charge inefficiently high rates, and mismanage its pole space in order to indiscriminately extract additional "value" from the attacher. The evidentiary requirements spelled out in this testimony and in my deposition testimony are economically and practically sound, and consistent with the "economic reality" standard for poles set forth in the *APCo* decision.

- Finally, if particular pole-specific cost, lost opportunity, or other relevant data are not available or Gulf Power is not able to find or present such data, then no reasonable determination of the *APCo* criteria, i.e., the existence of both full capacity and lost opportunity, can be made. Determinations on a pole-specific basis are required to satisfy the economic reality standard inherent in the Eleventh Circuit test. Statistical extrapolations, by design, and especially as proposed by Gulf Power, are flawed and inadequate in the context of the criteria set forth in the *APCo* decision.

EFFECTIVE REGULATION IS NECESSARY TO ENSURE ACCESS TO MONOPOLY-OWNED POLE FACILITIES AT JUST AND REASONABLE RATES.

Q. WHAT IS THE ROLE OF REGULATION WITH RESPECT TO THIRD-PARTY ATTACHMENTS TO UTILTY POLES?

A. Where the utility has control over an essential or bottleneck facility, as is the case with pole attachments, the utility has both the ability and the incentive to charge third-party attachers excessive rates. If anything, the utility's incentive to do so has increased

in recent years with the growing prospect of competition among cable and electric utilities.

Almost all pole lines are exclusively owned by telephone and electric utilities, as a result of public policies to establish widespread availability of electric and telephone service. In contrast, from its inception the cable industry never had a similar opportunity (and was certainly never encouraged) to build parallel pole plant for the delivery of its own services. Local laws, environmental restrictions and other legal, economic, and practical barriers preclude cable operators and competitive local exchange carriers from placing additional poles in areas where poles already exist.

As found by the Commission in its *Alabama Cable Telecommunications Ass'n* Order:

> "[C]able attachers frequently do not have a realistic option of installing their own poles or conduits both because, in many cases, attachers are foreclosed by local zoning or other right of way restrictions from constructing a second set of poles of their own and because it would be prohibitively expensive for each attacher to install duplicative poles."[1]

As a practical reality, attachers do not have the option of duplicating the pole networks constructed by the utility and paid for by its monopoly ratepayers. While an attacher may have the option of going underground in certain cases, that is typically at an expense much greater than the utility's actual costs of accommodating the attacher on its existing pole network.

[1] *Alabama Cable Telecommunications Ass'n v. Alabama Power Co ("Alabama Cable Telecommunications Ass'n")*, 16 FCC Rcd 12209 (2001) at ¶69.

To allow the utility to base its rental charge on its own higher, hypothetical pole replacement cost or on the hypothetical avoided cost to the attacher of stand-alone pole construction or underground installation, would permit the utility to exploit its monopoly ownership of the poles and to extract additional "value" from the attacher well in excess of the efficient or actual cost of the pole attachment.

Q. HAS THE UTILITY'S INCENTIVE TO EXPLOIT ITS MONOPOLOY OWNERSHIP OF POLES CHANGED IN RECENT YEARS?

A. The entry of electric distributors (or their affiliates) into telecommunications markets in recent years serves to heighten this incentive. Through various affiliate transactions and relationships, there are a number of devices that can be used to achieve effective cross-subsidization of an adjacent market business activity. Even in those cases where structural separation accounting rules might be in place, implicit, if not explicit forms of cross-subsidy manage to persist which allow the utility to leverage its monopoly power and control of essential facilities into the competitive market.

The utility's ability and incentive to exploit its monopoly ownership of poles is explicitly acknowledged by the Eleventh Circuit Court as an important backdrop to its *APCo* decision. The following excerpts from the *APCO* decision all speak to this point:

> Certain firms [electric utilities, local telephone companies, oil pipelines] have historically been considered to be natural monopolies – bottleneck facilities that arise due to network effects and economies of scale….Firms in other markets frequently need access to these bottlenecks in order to compete….
>
> Power companies have something that cable companies need: pole networks. Concerned about the monopoly prices power companies could extract from the cable companies, Congress

> allowed cable companies to force their way onto utility poles at regulated rates….
>
> This change to a forced-access regime was perhaps spurred by new laws, consistent with the 1996's Act vision of competition in all sectors of the data distribution business, that gave large power companies freedom to enter the telecommunications business…Perhaps fearing that electricity companies would now have a perverse incentive to deny rivals the pole attachments they need, Congress made access mandatory. [2]

Q. NOTWITHSTANDING THE CHANGES ACCOMPANYING THE 1996 ACT, WHAT RIGHTS OF POLE OWNERSHIP DOES THE UTILITY RETAIN?

A. As owner of the pole, the utility exerts many discretionary powers, none of which changed in connection with the passage of the 1996 Act. A cable company has to apply to use each pole, and cannot install its facilities until its permits are approved. The utility can revoke the permit. In cases where rearrangements are required, or a new pole has to be installed to accommodate the cable attachment, the cable company must agree to pay all make-ready costs (as determined unilaterally by the utility) before the permit is issued. The utility decides when and where to build out its system, and the cable company must adjust its plans accordingly. In addition, the utility has the power to deny access on the basis of "insufficient capacity."[3]

Contrary to assertions by Gulf Power's expert, Roger Spain, under the terms and conditions of utility pole attachment agreements, the value of the integrated elevated corridor is not being conveyed to the attacher, it is retained by the utility as owner of the

[2] *Alabama Power v. FCC*, 311 F.3d 1357 (11th Cir. 2002) ("*Alabama Power*" or "*APCo*") at 1361-63.

[3] There are restrictions on the utility's ability to invoke insufficient capacity as the basis for denial of access. For example, the determination of insufficient capacity must be agreed upon by the parties and applied by the utility in non-discriminatory manner. See 47 U.S.C. 224(f), also *Southern Company v. FCC*, 293 F.3d 1338 (11th Cir. 2002) at 1346-1349.

pole network. As articulated by the Commission in its *Alabama Cable Telecommunications Ass'n* order:

> …the ownership interest in the space occupied by a pole attachment is a limited property interest, restricted in duration, primacy, exclusivity, and physical manner of use, all of which affect the determination of value of the interest conveyed. A pole attachment does not displace the utility from its own use of the pole or from the right to license additional users on the pole...pole owners in general, are not entitled to an enhanced value or network value for pole attachments…the utility is not conveying to the attacher the right to be in the public right-of-way, which is granted by the local franchising authority for a fee, nor does the utility provide the attacher with a complete corridor of access to a network of customers.[4]

While ownership of the poles confers distinct advantages to Gulf Power, contrary to the assertion of Mr. Spain, it does not present significant risks for several reasons. First, the bulk of the poles that are the subject of Gulf Power's claim are already in service. While new replacement poles will be installed each year, as acknowledged by Gulf Power, the life of a pole is very long (approximately 30 years, although some can be as old as 80) [5] so the existing base of poles is large relative to the annual additions. Second, a significant percentage (approximately 75% according to Gulf Power)[6] of Gulf Power's poles are constructed under joint use arrangements with the telephone company, under which both build poles and grant reciprocal access to each other's poles. Third, most poles have been built by the utility under cost-of-service regulatory rules to provide its core electric utility service, which means that the poles and the obligation to maintain, repair, and

[4] *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001) at ¶57.

[5] Deposition of Ben Bowen, September 14-15, 2005, at 118.

[6] *Id*. at 115.

replace them into perpetuity) have been allowed into Gulf Power's rate base and subject to full cost recovery. Fourth, any costs that would not be incurred by the utility in the provision of its core electric service but for third party attachers, are directly reimbursable to the utility through the charging of make-ready.

Q. HOW DOES THE UTILITY'S OWNERSHIP OF THE POLES IMPACT THE RELATIVE BARGAINING POSITION OF THE UTILITY VIS-À-VIS THIRD-PARTY ATTACHERS?

A. By virtue of the former's ownership of the poles, electric utilities and cable companies negotiating pole rental fees are not even close to an equal bargaining position with regard to the setting of pole rates. Gulf Power's implicit suggestion that there is an equal bargaining position between itself and cable companies over rents, or alternatively, a "free market" for poles, makes little sense in terms of the practical realities of utility pole ownership and construction.

This point was explicitly recognized by the Eleventh Circuit Court in its *APCo* decision:

> As the owner of these 'essential facilities,' the power companies had superior bargaining power, which spurred Congress to intervene in 1978.[7]

Q. WHAT IS THE PRACTICAL IMPLICATION OF THE UTILITY'S OWNERSHIP OF THE POLES AND THE RESULTING ASYMETRIC BARGAINING POWER IT ENJOYS OVER THIRD PARTY ATTACHERS?

A. Unless the utility is subject to regulatory pricing standards based on well-established economic cost allocation principles, and held to operational standards consistent with industry best practices regarding pole utilization, the utility will be able to exploit its monopoly power resulting from its ownership of the poles. In particular, the

[7] *Alabama Power*, 311 F.3d at 1362.

utility will have the ability to charge excessive, economically inefficient rates that are based on value to the attacher or some other inappropriate standard rather than an economically appropriate cost.

Q. IS THERE ANY EVIDENCE OF GULF POWER'S ABILITY TO EXPLOIT ITS MONOPOLY POWER OVER POLES?

A. Yes. As indication of Gulf Power's ability to exploit its monopoly power over poles, the rates proposed by Gulf Power as "just compensation" rates exceed the FCC Cable Formula rate by a factor of eight or more. Using data for 2000, Gulf Power identified what it purports to be a "just compensation" rates of $40.60.[8] The corresponding FCC Cable Formula Rate based on 2000 data was only $4.61. Updated versions of this analysis provided by Gulf Power identify a proposed pole attachment fee as high as $54.38 based on 2004 data.[9] This latter figure exceeds the FCC Cable Formula rate of $5.96 for the comparable period by as much as 812%. The calculation of the FCC Cable Formula rates using data for the years 2000 - 2004 is presented as Attachment 3 to this testimony.

[8] Deposition of Ben Bowen, September 14-15, 2005, Exhibit 10 (02460), also reproduced in Exhibit 4, Deposition of Patricia Kravtin, March 15, 2006.

[9] Deposition of Terry Davis, November 18, 2005, Exhibit 40 (02445); also reproduced in Exhibit 4, Deposition of Patricia Kravtin, March 15, 2006.

SECTION 224 OF THE COMMUNICATIONS ACT AND THE FCC RATE FORMULA IMPLEMENTED PURSUANT TO SECTION 224 REFLECT ECONOMICALLY APPROPRIATE COST ALLOCATION PRINCIPLES.

Q. YOU MENTION ABOVE THE UTILITY'S ABILITY TO CHARGE EXCESSIVE, MONOPOLY RATES FOR POLE ATTACHMENTS AS OPPOSED TO RATES BASED ON ECONOMICALLY APPROPRIATE COSTS. CAN YOU EXPLAIN WHAT YOU MEAN BY ECONOMICALLY APPROPRIATE COSTS?

A. Under economically appropriate cost allocation principles, the recovery of the cost of the pole attachment is based upon the concept of cost causation (i.e., cost-causer pays). Such costs reflect costs that would not be borne *but for* the attacher, including a normal (reasonable) return to capital. Costs designed in this manner prevent a situation of cross-subsidy between the pole owner and the pole attacher.

The principle of cost causation is firmly established in Section 224 of the Communications Act, in Subsections (h) and (i). Section 224(h) specifically holds that it is the entity that "adds to or modifies its existing attachment" that should bear "a proportionate share of the costs incurred by the owner." Section 224(i) further specifies that an entity should "not be required to bear any of the costs of rearrangement or replacing its attachment," if that rearrangement or replacement is the result of a change "sought by any other entity (including the owner…)."

Consistent with the economic principle of cost causation, Section 224(d) links the pole attachment rental to marginal costs, by establishing a range of reasonableness that has marginal costs as a lower bound, and fully allocated cost as an upper bound. Section 224(d) "assures a utility the recovery of not less than the additional costs of providing pole attachments, nor more than an amount determined by multiplying the percentage of

the total usable space…which is occupied by the pole attachment by the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole."

Q. HOW DOES THE FCC CABLE RATE FORMULA FOR POLE ATTCHMENT RENTAL RELATE TO THE UPPER AND LOWER BOUNDS ESTABLISHED IN SECTION 224(D)?

A. The actual FCC rate formula adheres to the *greater* fully allocated cost standard described in Section 224(d), which by definition, allows the utility to recover through the rental rate ongoing costs *in excess* of than marginal cost, as recognized by the Court in the *APCo* decision:

> Based on these guidelines [47 U.S.C. 224(d)(1)], the FCC promulgated regulations that focused on the upper end of this range.
>
> …the fact [is] that much more than marginal cost is paid under the Cable Rate.[10]

Q. HOW DOES THE FCC CABLE RATE FORMULA IN PRACTICE APPLY THE COST CAUSATION PRINCIPLES ENUCIATED IN SECTION 224(H) AND (I)?

A. The FCC Cable Rate Formula allows recovery of a cost-causative portion of the utilities' operating expenses and actual capital costs attributable to the entire pole, based on booked costs. The FCC Cable Rate formula can be expressed as follows: Maximum Rate = (Space Occupied by Attachment ÷ Total Usable Space) × Net Cost of Bare Pole × Carrying Charge Rate.[11]

[10] *Alabama Power*, 311 F.3d at 1363, 1369.

[11] 47 C.F.R. 1.1409.

The FCC Cable Rate Formula charges cable companies in proportion to their direct use or occupancy requirements – one foot of space on the pole – again consistent with cost causation principles. Compared with electric utility facilities, cable attachments occupy considerably less space on the pole and place much less of a cost burden on poles than do electric conductors, not only in terms of space but also in terms of weight and required height above minimum grade. Cable attachments also need less space than telecommunications attachments. For example, on a standard 40-foot joint use pole, 8.5 feet of space is allocated to Gulf Power and 3 feet is allocated to telecommunications carriers, BellSouth and Sprint, as opposed to the 1 foot of usable space allocated to cable.[12]

Electric utilities such as Gulf Power do not favor a formula that allocates cost based on the percentage of usable space occupied by cable, precisely because such a formula allocates a relatively small portion of the overall cost of the pole to cable. However, the FCC's allocation of 1 foot of space is consistent with cable's small use requirements, and the fundamental economic principle of cost causation.

In situations where marginal cost is very small, it is entirely appropriate to allocate little (or even no cost) to the user. Reasoned principles of economic cost recovery do not require the allocation of every conceivable dollar that could be attributed to a cost causer based on ability to pay or the pole owner's subjective (and self-serving) notion of fairness. All that is required—from an economics standpoint—is that the recovery be economically reasonable and appropriate in accordance with fundamental economic

[12] See Deposition of Rex Brooks, September 16, 2995, at 29, Deposition of Terry Davis, November 18, 2005, at 159.

principles of cost causation. The FCC's space factor is totally consistent with this fundamental economic concept.

Indeed, even with a relatively small portion (7.41%) of the overall cost of the pole attributed to cable under the FCC Cable Formula calculation, cable companies are paying well in excess of the marginal costs of their attachments. Moreover, cable companies are just one of many attachers occupying space on the utility's poles and paying rent to the utility. Taking into account the totality of attachments on a given pole, including telecommunications companies paying the higher Telecommunications Formula rate or an even higher joint-ownership rate, Gulf Power may well be approaching recovery of more than its pro-rata share of the pole cost given its own relative use of the pole. As noted above, Gulf Power's use is well over 8 feet, as compared to cable's 1 foot. Applying the same FCC space factor used to allocate costs to cable, Gulf Power should be allocating to itself roughly 60% of the cost for a standard 40 foot joint-use pole, yet it appears Gulf Power is allocating much less than this pro-rate share. As discussed later in this testimony, under Gulf Power's proposed replacement cost methodology which applies a much higher space factor to cable companies (in the range of 30%) as compared to the FCC (7.41%), Gulf Power's respective share of the cost would be far less.

The net cost of bare pole used in the FCC Formula is based on investment booked to FERC Account 364 ("Gross Pole Investment") less accumulated depreciation and accumulated deferred income taxes, and less 15% for cross-arms and other non-pole related items. Certain costs associated with equipment "specific to the electric utility's core business services and not related to the general cost of pole plant," such as lightning protectors and grounding installations in FERC accounts other than Account 364 are

excluded.[13] As will be discussed later in this testimony, in addition to using a more recent "replacement" cost that has no relation to the actual costs of poles to which cable companies are attached, one of the ways Gulf Power artificially inflates its purported "just compensation" rates is by including costs such as lighting protectors and grounding installations - costs which were expressly excluded by the FCC on the basis of cost causation principles - into the calculation of its proposed replacement costs.

Through application of the carrying charge factor, the Cable formula includes allocation of indirect or overhead costs such as administrative (FERC accounts 920-931, 935) and maintenance (FERC account 593) in addition to capital costs (taxes, depreciation, and rate of return) associated with total pole plant (i.e., reflecting both usable and unusable space).

As mentioned above, I have calculated the FCC Cable Rate formula for Gulf Power using data for the years 2000 – 2004, and those calculations are presented in Attachment 3 to this testimony.

Q. HOW ARE MAKE-READY CHARGES APPLIED IN CONNECTION WITH THE FCC CABLE FORMULA RATES?

A. In addition to the rental rate, the utility is allowed to charge cable operators make-ready charges, to recover any *one-time* additional costs incurred in the provision of pole attachments. These costs are designed in principle to recover costs that the utility would not have incurred, *but for* the attachment request, and thus, from the standpoint of economic cost causation principles, provide for an economically appropriate attribution of costs.

[13] See FCC Report and Order, 15 FCC Rcd. 6453 (2000), ¶38; see also 16 FCC.Rcd. 12209 at ¶61.

However, because utilities set make-ready charges generally in the absence of regulatory scrutiny, make-ready charges may in fact recover more than an economically appropriate attribution of cost. For example, a cable company may be charged make-ready fees for a change-out that the electric utility would have made in the absence of the cable attachment, or the cable company may be charged costs in excess of those actually incurred.

While Gulf Power witness Bowen asserts he is unaware of such circumstances where the cable company may have been charged make-ready in excess of the costs incurred by Gulf Power,[14] as mentioned above, Gulf Power sets make-ready costs at its sole discretion. By Bowen's admission, Gulf Power does not typically perform any sort of true up between the costs generated by the engineering cost program used by Gulf Power to generate make-ready charges and the actual costs incurred. Since the power company is in total control of the make-ready charge process, it is rational to assume that if the power company believed it was not recovering the full cost of make-ready, it would perform such a true-up and seek additional make-ready payments since it is not constrained in any manner from doing so.

[14]Deposition of Ben Bowen at 68-72.

THE COMBINATION OF FCC CABLE FORMULA RATES AND MAKE-READY CHARGES (INCLUDING PAYMENT FOR NEW POLES) PAID BY CABLE COMPANIES MORE THAN RECOVERS THE INCREMENTAL COST OF POLE ATTACHMENT, THEREBY SATISFYING ECONOMIC PRINCIPLES OF COST CAUSATION.

Q. TAKEN TOGETHER, WHAT ARE THE COST RECOVERY IMPLICATIONS OF THE FCC CABLE FORMULA RATES AND THE MAKE-READY CHARGES PAID BY CABLE COMPANIES?

A. Taken together, the *combination* of rental rates - which as described above, cover a proportionate share of the operating costs (administration, maintenance, inspections, etc) and the capital costs of the *total* pole (usable and unusable space) - and make-ready charges (which cover any non-recurring costs incurred by the utility) ensures the utility recovery of much more than the marginal cost of attachment.

Indeed, this widely "known fact" played a central role in the Court's analysis in *APCo*:

> *The known fact is that the Cable Rate requires the attaching cable company to pay for any "make-ready" costs and all other marginal costs (such as maintenance costs and the opportunity cost of capital devoted to make-ready and maintenance costs), in addition to some portion of the fully-embedded cost.*
>
> …This legal principle [just compensation is determined by the loss to the person whose property is taken], *together with the fact that much more than marginal cost is paid under the Cable Rate,* leads us to ask the following question: does marginal cost provide just compensation in this case?
>
> …In short, before a power company can seek compensation above marginal cost, it much show with regard to each pole that (1) the pole is at full capacity and (2) either (a) another buyer of the space is waiting in the wings or (b) the power company is able to put the space to a higher-valued use with its own operations." *Without such proof, any implementation of the Cable Rate, (which provides for much more than* marginal cost) *necessarily provides just compensation.* [15]

[15] *Alabama Power*, 311 F.3d at 1369, 1370, *emphasis added.*

Because the combination of rental rates and make-ready charges recover much more than the incremental cost of attachment, there can be no valid claim of cross-subsidy or specific cost burden borne by the electric company or its customers as a result of the attachment. For a subsidy to occur, the pole owner must have unrecovered costs that *but for* the attacher would otherwise not exist. This is clearly not the case where the combination of rental rates (which in the case of the Complainants exceed the FCC formula rates)[16] and make-ready charges more than cover the incremental cost of attachment.

From an economics standpoint, rates covering incremental costs of attachment are economically efficient and avoid cross-subsidy. Where rates cover the incremental cost of attachment, neither the pole owner nor any of the other parties sharing the pole will bear a higher cost as a result of the attachment (than they would absent the attachment). It thus cannot be said from an economic perspective that the pole owner (and its other customers) would be better off without the attachment. In fact, as discussed below, it can be shown that the pole owner is typically made better off after the accommodation of an additional attachment has been made. Under these conditions, for the reasons described above, there can be no valid claim of economic subsidy. The legal principle in takings law for just compensation is consistent with the economic notion of cross subsidy avoidance:

> This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be

[16] See Complaint, July 10, 2000 at 7 n.4. and Ex. 16.

> put in as good a position as he was in before the wrong, but not better.[17]

THE *APCO* CRITERIA FOR ALLOWING A POWER COMPANY TO SEEK "JUST COMPENSATION" ABOVE MARGINAL COSTS (OVER AND ABOVE THAT ALREADY PROVIDED IN THE REGULATED RATE) IS TIED TO THE ECONOMIC CONCEPTS OF FULL CAPACITY AND LOST OPPORTUNITY.

Q. YOU CITE ABOVE TO THE FINDING IN *APCO* THAT "ANY IMPLEMENTATION OF THE CABLE RATE (WHICH PROVIDES FOR MUCH MORE THAN MARGINAL COST) NECESSARILY PROVIDES JUST COMPENSATION" UNLESS CERTAIN VERY SPECIFIC SHOWINGS ARE MADE BY THE POWER COMPANY. CAN YOU ELABORATE ON THE SPECIFIC SHOWINGS REQUIRED BEFORE A POWER COMPANY CAN SEEK COMPENSATION ABOVE MARGINAL COST.

A. Yes. As cited previously in this testimony, "before a power company can seek compensation above marginal cost," it must show the following "with regard to each pole:"

> (1) the pole is at full capacity and (2) either (a) another buyer of the space is waiting in the wings or (b) the power company is able to put the space to a higher-valued use with its own operations.[18]

The presence of the latter two factors is described by the Court collectively as being associated with a condition of "lost opportunity" foreclosed by the taking and consistent with the "economic reality" of poles. In the absence of such proof of full capacity and lost opportunity, the Court determines that a power company "can charge only the

[17] *Alabama Power*, 311 F.3d at 1369.

[18] *Id.* at 1370.

regulated rate (so long as that rate is above marginal cost)" [19] – which as established above, holds true for the FCC Cable Rate.

Q. WHAT IS THE "ECONOMIC REALITY" OF POLES UPON WHICH THE ELEVENTH CIRCUIT BASES ITS REQUIRED SHOWING OF FULL CAPACITY AND LOST OPPORTUNITY BEFORE A UTILITY CAN SEEK COMPENSATION RATE IN EXCESS OF MARGINAL COST ?

A. The "economic reality" upon which the Eleventh Circuit bases its test relates to the "unique" nature of poles that makes them "for practical purposes, *nonrivalrous*." As explained by the Court:

> In such as case [ordinary property, such as land], the 'value' of the thing taken is congruent with the loss to the owner, and there is therefore little tension between the legal propositions [loss to the owner, not gain to the taker and full monetary equivalent of the property taken]. This is because most property is rivalrous—its possession by one party results in a gain that precisely corresponds to the loss endured by the other party. In this case, however, the property that has been taken – space on a pole – may well lack this congruence. It may be, for practical purposes, *nonrivalrous*. This means that use by one entity does not necessarily diminish the use and enjoyment of others.[20]

The Court rightly distinguishes this unique aspect of poles from the typical taking claim involving "ordinary property," where one entity's use of the property specifically forecloses some other entity. While the Court recognized the "possibility of crowding" on poles, and the notion that such "crowding" could, in principle, "make pole space become[] rivalrous," it was very specific in defining the economic standards that should

[19] *Id.*

[20] *Id.* at 1369, *emphasis added.*

be used in determining what would constitute "crowding" for the purposes of satisfying the "full capacity" criteria articulated by the Court.[21]

Full Capacity

Q. WHAT ARE THE ECONOMIC STANDARDS FOR DETERMINING FULL CAPACITY TO WHICH YOU REFER?

A. The Court was very specific in identifying the economic standards that would be required to demonstrate a pole was at "full capacity," by providing concrete descriptions of a "full" pole or the "full capacity situation" that are based on the concepts of the "zero sum" and "rivalrous" nature of poles. As described by the Court:

> When a pole is full and another entity wants to attach, the government taking forecloses an opportunity to sell space to another bidding firm – a missed opportunity that does not exist in the *nonrivalrous* scenario. By forcing the power company to rent space that could be occupied by another firm (or put to use by the power company itself), the analogy to land becomes more appropriate. In the 'full capacity' situation, it is the *zero-sum* nature of pole space, like land, that is key." [22]

Q.DO THE TERMS "ZERO SUM"AND "RIVALROUS" HAVE SPECIFIC MEANINGS IN THE ECONOMIC LITERATURE?

A. Yes, they do. The terms "zero sum" and "nonrivalrous" have very specific meaning in the economics literature. To be a "zero sum" situation requires that for one entity to gain, another entity must lose.[23] The "pie" being share is of fixed size. For someone's piece of the pie to get bigger, someone else's piece must necessarily get smaller. Similarly, where a resource is "nonrival," one entity's use of a resource does not diminish or preclude the

[22] See *Alabama Power*, 311 F.3d at 1370, *emphasis added.*

[23] See Lester C. Thurow, *The Zero Sum Society*, Basic Books, Inc. Publishers (New York, 1980), at 11.

use by another.[24] Conversely, when a resource is "rival' in consumption, one entity's use of a resource does reduce the use by another. If a "nonrivalrous" or "non-zero sum" situation exists with respect to a pole, then that pole cannot legitimately be said to be at "full capacity." Said more simply, if the addition of another attachment on the pole does not preclude the pole owner's ability to accommodate another attachment or another use, then, by definition, there is available or effective capacity on the pole.

Accordingly, it is not enough that the pole just appear "crowded" or "full" in a vague or ordinary sense of the word, for example, as in a visual inspection of the pole or identification of a certain number of attachments. To satisfy the Eleventh Circuit test, it must be determined that a pole is at "full capacity" in the economic sense of presenting a rivalrous or zero-sum condition, such that one entity's presence on the pole will necessarily deprive another of the ability to attach to that pole.

Q. IN ITS VARIOUS PLEADINGS, GULF POWER APPEARS TO BE SUGGESTING THERE IS NO REAL DIFFERENCE BETWEEN THE APPEARANCE OF "CROWDING" ON A POLE AND A "FULL" POLE. DO YOU AGREE?

A. No, I do not. A pole, as with other facilities (e.g., airport, parking lot, office space) can be "crowded" or congested, without being at "full capacity" in the economic sense. For a facility to be at full capacity, it must be a situation where a user (be it an airplane, automobile, employee, or attachments) would actually be excluded from the facility because of a true *capacity constraint* or *scarcity* with respect to the underlying infrastructure. Such a situation is distinct from congestion or crowding, which often goes hand-in-hand with a lack of capacity, but which can have many other causes as well,

[24] See Musgrave and Musgrave, *Public Finance in Theory and Practice*, McGraw Hill (1976), at 51.

including for instance, inefficient management practices or poor design. If a facility would be able to accommodate an additional user if it made certain operational changes or performed functions more efficiently, then it is not at full capacity.

The distinction between crowding and full capacity has been described in the economic literature as follows:

> Congestion refers to the costs arising from crowding effects (too many users in the system), and *scarcity is a situation of exclusion* of some firms from the system *due to lack of capacity.* [25]

That Gulf Power chooses to define the concepts of crowded and full capacity as equivalent, practically or otherwise, for purposes of this case, does not in anyway alter the fundamental economic distinction between the two.

Similarly, that the Osmose Statement of Work defines the concepts of crowding or full capacity as one and the same ("to mean a pole that cannot host another attachment without rearrangement or changeout" [26]) only means the results of the Osmose survey are flawed, not that the two concepts are equivalent from a true economic perspective.

A bigger problem with Gulf Power 's definition of full capacity, however, is its failure to take into account the dynamic state-of-being inherent to poles.

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[25] Gustavo Nombela, Gines de Rus, and Ofelia Betancor, *Competitive and Sustainable Growth Programme and Marginal Cost for Transport Efficiency, UNITE (Unification of accounts) WP7: User Costs and Benefits,* Case Study 7: Evaluation of Congestion Costs for Madrid Airport (1997-2000), Version 2.0, 30 April 2002, *emphasis added*.

[26] Gulf Power Non-Binding Proffer of "Full Capacity" Pole Evidence, October 17, 2005,at 2.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY THE DYNAMIC STATE-OF-BEING INHERENT TO POLES AND GULF POWER'S FAILURE TO TAKE THAT INTO ACCOUNT IN ITS DEFINITION OF FULL CAPACITY.

A. An inherent economic characteristic of pole capacity is that, under normal operating conditions of production, it is *not* fixed in the short-run. Rather, it is dynamic in nature, and any economically meaningful definition of full capacity for poles will reflect this dynamic state-of-being inherent to poles. In the overwhelming majority of cases, by Gulf Power's own admission, additional attachments can (and are) accommodated in the course of normal and customary operating practices of pole owners, including pole rearrangements and change-outs. [27] In this very real economic sense, therefore, pole capacity is not static or finite.

Generally speaking, it is the fixed nature characteristic of most inputs that limit capacity or scale of operations. All inputs are ultimately variable in the long run, but what makes poles unique, is their inherent ability to provide for greater effective capacity in the "shortest" of short-runs. Productive capacity on poles can be harnessed generally as fast as the paperwork can be processed, and a technician can be called down to rearrange attachments or a taller pole can be transferred from inventory.

This economic attribute of poles distinguishes poles from other assets (e.g., land, marina space) for which valuation methods cited by Gulf Power have been applied, and means that an additional attachment is, as a general proposition, non-rival with respect to current and potential pole attachments.

[27] See Gulf Response to Second Request No. 8, also Gulf Power's Motion to Reconsider Limited Portions of Second Discovery Order at 1, September 30, 2005; Deposition of Thomas Forbes, November 17, 2005, 133-136.

The condition of full capacity exists in the economic sense when capacity is truly zero sum, such that one entity's presence on the pole actually deprives another of the ability to attach to that pole. For a resource to be at full capacity necessarily requires that capacity be fixed in a short run sense. To the extent Gulf Power is able through normal and customary business practices (i.e., make-ready, rearrangements and pole changeouts) to harness greater effective pole capacity in the present time frame, it makes no sense from an economics perspective to say the pole is at full capacity. Indeed, the power company's routine practice of accommodating additional attachments of poles is the antithesis of a "zero sum" situation.

Q. IN WHAT RESPECTS IS GULF POWER'S ROUTINE PRACTICE OF ACCOMMODATING ADDITIONAL ATTACHMENTS THE ANTITHESIS OF A"ZERO SUM" SITUATION?

A. After performing what is routine work on the pole (for which it is compensated by the incremental attacher through make-ready pursuant to Section 224), the power company does not have to displace an existing attachment, or turn away another attachment. In fact, the power company is typically able to accommodate even more attachments after the routine work has been performed, than it was before.

It is a totally perverse economic result under such circumstances as just described to identify such a pole as being at "full capacity," and on that basis allow the power company to charge not only the additional cable attacher but other pre-existing cable attachers a rate higher than the cable rate (which is already in excess of marginal cost). Such an outcome violates the cost-causation principles underlying Section 224, by requiring pre-existing attachers, who were not the cause agents in any principal respect, to pay more than they were paying before the pole change-out or rearrangement.

Q.WHAT IS GULF POWER'S POSITION REGARDING THE DYNAMIC APPROACH TO FULL CAPACITY YOU DESCRIBE ABOVE?

A. Gulf Power's position is that adopting a dynamic approach to full capacity would make it impossible for Gulf Power to meet its burden since, as Gulf Power acknowledges, "virtually *any* pole can be changed out."[28] This is a strawman argument, and one that is not valid for several reasons.

First, there are a number of real-world situations where it will not be possible for the power company to harness greater effective capacity on a pole. Some examples identified by the Complainants include:

> "For example, a layer of impenetrable rock may exist underneath the pole precluding a taller pole from being sunk low enough in the ground as required by applicable engineering codes; a height limit may be imposed by the Federal Aviation Administration for poles in a given geographic area; an overpass or other cables or wires (e.g., electric transmission lines, streetcar wires, etc.) might interfere with placement of a taller pole; or a 50 foot pole might have so many attachments as to render it "full," but no taller 55 pole exists in inventory." [29]

Second, while these types of situations where pole change-outs cannot practically occur due to terrain, obstructions, or zoning restrictions may be limited in nature, they are the only *true* instances where poles can be characterized as zero sum or rivalrous in nature. Hence, such instances are the only legitimate, economically valid cases where a potential finding of "full capacity" can be made, and the type of evidence Gulf Power must provide in order to meet its burden of proof in this case with respect to the first of the two *APCO* criteria. Under the two-prong test established in *APCo*, the power company would still have to prove the existence of an actual lost opportunity either in the form of a "bidding

[28] Gulf Power's Motion to Reconsider Limited Portions of Second Discovery Order, September 30, 2005, at 4.

firm" or "higher valued use" of the power company that was actually turned away or precluded.

That Gulf Power may deny access for reasons of "insufficient capacity" does not affect this fundamental economic reality of full capacity. Moreover, Gulf Power's ability to deny under Section 224 is not absolute; it must be agreed upon and carried out on a non-discriminatory basis. Since Gulf Power routinely performs make-ready, rearrangements, and pole changeouts for itself, its joint pole owners, and other third-party attachers, it would seem Gulf Power would not be able to refuse to perform make-ready at its own unfettered discretion and for the sole purpose of being able to charge a higher "just compensation" rate to a particular class of (cable) attachers.

Because Gulf Power's ability to seek additional compensation in excess of marginal cost is tied to the demonstration of full capacity (in conjunction with lost opportunity), it is obviously in Gulf Power's own interest to embrace a definition of full capacity that would encompass the largest number of poles possible. Gulf Power's position that the need for, or the previous occurrence of make-ready work to accommodate an additional pole attachment, in and of itself,"[30] demonstrates a condition of "full capacity" is consistent with such a strategy.

However, the relative frequency of "full capacity" poles has no substantive bearing on the validity of the economic concept of full capacity. If anything, since Gulf Power is already receiving just compensation for use of its poles, there should be no expectation of

[29] Complainants' Responses to Gulf Power's First Set of Interrogatories and Document Requests, April 18, 2005, at 18.

[30] See e.g., Gulf's Non-Binding Proffer of "Full Capacity" Pole Evidence, October 17,2005, at 2.

a large number of poles that would qualify for additional compensation under the *APCo* criteria.

Q. DOES GULF POWER'S POSITION THAT THE NEED FOR, OR PREVIOUS OCCURRENCE OF MAKE-READY WORK DEMONSTRATES A CONDITION OF FULL CAPACITY MAKE ECONOMIC SENSE?

A. No, it does not. Gulf Power's position with respect to make-ready is inherently illogical and ignores the dynamic state-of-being inherent to poles, namely the ability to harness greater effective pole capacity in the present time frame. Make-ready is the vehicle by which Gulf Power has been able to accommodate an additional pole attachment. Through the normal and customary business practices of make-ready, rearrangements (including the correction of code violations), and pole change-out, Gulf Power has historically been able to accommodate an additional attacher. No exclusion or rivalrous condition on the pole – the condition required for demonstration of full capacity on the pole – can be said to exist in any meaningful sense of the word if the additional attacher is or can be readily accommodated on the pole. (Nor for that matter is there an identifiable foreclosed opportunity or foregone revenues (lost opportunity), since Gulf Power is reimbursed by the attaching party for any cost incurred in that endeavor and receives the benefit of a future stream of rental revenues.)

Contrary to Gulf Power's position, the ability to perform make-ready work on a pole provides direct evidence of the *nonrivalrous* condition of the pole. The economic realities of make-ready and full capacity cannot rationally coexist. It would be logically absurd to have a pole that is able to accommodate additional attachments (through make-ready work which the lessee is willing to pay for) classified for rate purposes as being at "full capacity." As defined above, the condition of full capacity requires a situation of

exclusion. By contrast, the practice of make-ready expressly allows for the *inclusion* of additional attachments.

Moreover, it would be decidedly perverse from an economics and public policy standpoint to reward Gulf Power for refusing to permit make-ready work performed in the normal course of business operations (and for which the lessee is willing to pay) for the express purpose of justifying a higher "just compensation" rate to preexisting attachments.

Finally, whether or not Gulf Power is legally "obliged" to do make-ready work to accommodate additional attachments is irrelevant from an economic standpoint. From an economic perspective, what is relevant is that such make-ready work has been and continues to be routinely performed by Gulf Power and that through this normal and customary process, pole capacity, as a general proposition, is readily available to accommodate an additional attachment on the pole. Whether Gulf Power remains *willing* to perform make-ready work on a non-discriminatory basis in response to a changing legal and/or regulatory incentive structure has nothing to do with the underlying economics of the situation and the fact that Gulf Power is *able* to perform make-ready as a means of accessing readily available pole capacity.

Furthermore, Gulf Power's ability to deny under Section 224 is not absolute; it must be agreed upon and carried out on a non-discriminatory basis. Since Gulf Power routinely performs make-ready, rearrangements, and pole change-outs for itself, its joint pole owners, and other third-party attachers, it would seem Gulf Power would not be able to refuse to perform make-ready at its own unfettered discretion and for the sole purpose of

being able to charge a higher "just compensation" rate to a particular class of (cable) attachers.

Lost Opportunity

Q.HAVING DISCUSSED THE FIRST PRONG OF THE *APCO* TEST, I.E., FULL CAPACITY, CAN YOU DESCRIBE HOW THE SECOND PRONG OF THE TEST, I.E., THE CONCEPT OF LOST OPPORTUNITY, RELATES TO THE FIRST?

A. As formalized in the second part of the two-prong test articulated by the Court, in order for the power company to make a claim for just compensation in excess of marginal cost, it is not sufficient to demonstrate a pole is at "full capacity." Lost opportunity must also be demonstrated. Pursuant to the *APCo* decision, lost opportunity is demonstrated by the presence of full capacity *and* one of the following two conditions - "another buyer of the space waiting in the wings" or an instance where "the power company is able to put the space to a higher-valued use with its own operations."

As further described by the Court, in order to satisfy the second prong of the test, the pole owner would be required to identify an actual "missed opportunity" or "foreclose[d] opportunity to sell space to another bidding firm" or a specific "use by the power company itself."[31]

The Court acknowledges that its ruling creates the appearance of an "anomaly" in that "a power company whose poles are not 'full'" can charge only the regulated rate… but a power company whose poles, are, in fact, full, can seek just compensation."[32] The Court

[31] See *Alabama Power*, 311 F.3d at 1370.

[32] See *Id.*at 1370-71.

rationalizes this apparent "anomaly" by stating "this result is in accordance with the economic reality that there is no 'lost opportunity' foreclosed by the government unless the *two* factors ["full capacity" and either "another buyer waiting in the wings" or a "higher-valued use" by the power company] are present" with respect to each pole.

Q.DOES IT MAKE SENSE TO SPEAK IN TERMS OF A HYPOTHETICAL BIDDER OR USE OF THE UTILITY'S POLES IN DEMONSTRATING A LOST OPPORTUNITY?

A. No, it does not. For the anomalous condition of a just compensation rate other than the regulated rate to make economic sense, the "economic reality" of lost opportunity referred to by the Court must be real versus illusory. In this context, it makes no sense to talk in terms of a hypothetical bidder or uses of the pole. To prove "lost opportunity" in an economically meaningful way, the power company must be able to show - in a quantifiable and verifiable manner- that it has suffered an actual loss in terms of foregone revenue or cost consequence as a result of the existence of full capacity on a pole. The power company must be able to demonstrate it is *financially worse off* as a consequence of a cable attacher paying for pole space under the FCC regime (i.e., combination of FCC formula rent plus make-ready).

If all attachers or uses were in fact accommodated or capable of accommodation through normal business practices, and in accordance with the FCC rules, third party attachers pay Gulf Power for any costs it incurred to make that accommodation and rental fees on top of those make-ready costs, there simply is no tangible loss to consider. If Gulf Power can accommodate a potential or hypothetical buyer, then in effect, there is nothing tangible being lost by Gulf Power.

The economic reality of the situation is that if there is no inherent reason why Gulf Power cannot accommodate a potential buyer (i.e. there is pole capacity available or readily available), then that potential buyer is not legitimately characterized as "waiting in the wings." There would be no logical reason for that buyer to be "waiting" to rent space on a Gulf Powers pole - other than the perverse incentive that Gulf Power might have to deny a potential buyer access to available pole capacity for the express purpose of being able to charge a higher "just compensation" rate to pre-existing cable attachers. The only way to prevent Gulf Power from responding to such a perverse incentive is to a) require Gulf Power to identify an *actual* buyer that has been excluded from the pole, for each pole for which Gulf Power seeks the higher just compensation rate, and b) to define full capacity in the manner described above, i.e., based on objective benchmarks that hold the power company accountable for best practices and the efficient use of *all available* pole capacity.

Similarly, the demonstration of a higher-valued use must also be based on objective criteria and the demonstration of a bona fide higher-valued use that was precluded because there was no available pole capacity. Otherwise, it would be trivial for the utility to say it valued its own use or use by an affiliate (current or potential) higher than that of any other potential use by non-affiliated entities, since by simply declaring so would result in the utility being able to charge preexisting occupants a higher pole rental rate on virtually any pole.

In very real economic terms, there would be a tangible loss only in those instances where an actual attacher or use was precluded, and Gulf Power was thereby deprived of additional revenues it could otherwise have received had pole space been available to

accommodate another attachment. Otherwise, Gulf Power's costs are being recovered, and hence there is no specific identifiable cost burden being borne by the power company or its electric ratepayers as a result of the existence of pole attachments by cable companies. Indeed, Gulf Power cannot claim it has suffered financially under the current FCC pricing regime. According to a recent order issued by the Florida Public Service Commission, Gulf Power would have been seriously overearning relative to its authorized rate of return, but for its voluntary agreement to absorb costs relating to hurricane damage.[33]

In fact, in the typical case, the pole owner will end up decidedly "better off" after an incremental cable attachment in the following concrete ways: (1) the power company receives in excess of the marginal costs it incurs through the combination of make-ready for the pole change-out or rearrangement plus the FCC Cable Rental Rate; (2) because cable attachments place minimal space demands on the pole and poles come in standard heights, the power company ends up with greater available pole capacity as compared with pre-attachment.; (3) more space is now available on the pole for additional uses and/or users for which the utility will either be able to charge rental and/or use for its own and hence realize additional sources of revenue; and (4) Gulf Power has the benefit of a newer, stronger pole for its own operations at the cable company's expense, and can thereby realize savings (or deferred capital expenditures) to its own build-out program.

[33] See Florida Public Service Agreement, *Notice of Proposed Agency Action Order Aproving Stipulation and Settlement*, Docket No. 050093-EI, Order No. PSC 05-0250-PAA-EI, March 4, 2005.

The FCC recognized this point in its *Alabama Cable Telecommunications Ass'n* decision:

> "In instances where attachers pay the costs of a replacement pole, the attacher actually increases the utility's asset value and defers some of the costs of the physical plant the utility would otherwise be required to construct as part of its core service."[34]

Q. IS GULF POWER'S APPROACH TO LOST OPPORTUNITY CONSISTENT WITH THE APPROACH YOU HAVE DESCRIBED ABOVE?

A. No, it is not. Gulf Power appears to assume away the second prong of the *APCo* test with its suggestion that demonstrating full capacity in and of itself provides evidence of a lost opportunity, [35] even though, as recognized by the Court, they are different concepts, *both* of which need to be present in order to justify a utility seeking additional compensation relative to the regulated rate.

Moreover, many of Gulf Power's arguments regarding the demonstration of lost opportunity appear connected to the notion that the utility has been precluded from extracting additional "value" from cable companies and to the additional revenues Gulf Power has foregone by not being able to charge the cable companies more money for pole space.

Gulf Power falsely asserts it has suffered a lost opportunity equal to the difference between the regulated rate for pole space (which Gulf Power witness Bowen describes as a "subsidized rate") and a "free market" rate."[36] First, the economic criteria for

[34] *Alabama Cable Telecommunications Ass'n v. Alabama Power Co.*, 16 FCC Rcd. 12209 at ¶ 58 (2001).

[35] Gulf Power's Supplemental Filing Regarding Its Fifty Pole Identification, p. 2, ¶ 6 (Feb. 10, 2006). "The Osmose audit data and the Knology make-ready information establish a lost opportunity with respect to each pole identified therein because those poles are 'crowded' or at 'full capacity."

[36] See Deposition of Ben Bowen , at 72:

> Q How is it subsidized what, do you mean?

determining existence of a subsidy is the relationship between the rate charged and the underlying economic cost. It is not, as Gulf Power witness Bowen incorrectly asserts, the difference between the regulated rate and a higher alternative rate the power company believes it could charge absent regulation. Market rates can serve as proxies to costs only when conditions of effective competition exist,[37] and market forces can be relied on to bring rates down to levels approximating marginal costs. Where competitive market conditions do not exist (as is the case with pole space), there will be no such competitive pressures. Under such conditions, the "free market" rate degenerates into an unregulated monopoly rate and will tend to incorporate supra-normal monopoly profit.

Along these same lines, the notion that Gulf Power has been precluded from extracting additional "value" from cable companies and has foregone revenues by not being able to charge the cable companies more money for pole space appears to be precisely what counsel for Gulf Power has in mind when he suggested in deposition questioning that the exclusion of cable companies from Gulf Power's poles was a "higher valued use." Citing to "producers sometimes control[ling] short run production for the purposes of driving up demand and thus value," and to the "way they [producers]drove up prices on those things was by controlling the amount of production" [38] would suggest Gulf Power's own motivation, as monopoly owner of poles, to artificially restrict the supply of pole space in order to charge an excessively high price.

A It's not a free market rate, the attachment rates in the free market were higher in the early seventies than they are today.

[37] Competitive market conditions would include numerous buyers and sellers, no one of which is large enough to influence the price by varying the quantity of output it sells. See F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Third Edition (Boston: 1990), at 16.

[38] See Deposition of Patricia Kravtin at 180-183, 195, 208-210.

Q.IT IS APPROPRIATE FOR GULF POWER TO DEFINE LOST OPPORTUNITY BASED ON FOREGONE REVENUES ASSOCIATED WITH NOT BEING ABLE TO CHARGE CABLE COMPANIES AS HIGH A RATE AS IT COULD IN THE ABSENCE OF REGULATION, OR ALTERNATIVELY NOT BEING ABLE TO EXCLUDE CABLE FROM ITS POLES?

A. No, it is not. Lost opportunity in the economic sense is not properly defined in terms of the power company's inability to artificially restrict the supply of pole space or to charge the cable company more money, because of the monopoly power the utility enjoys with respect to pole infrastructure. To do so, would allow the power company to exploit its monopoly power.

For a host of economic and public policy reasons, the definition of lost opportunity for purposes of satisfying the *APCo* test is not appropriately based on what amounts to a monopolist's perceived inadequacy of the regulated rate in satiating its desire to charge a higher price (and one that is in excess of a competitive market rate). As recognized by the Court in *APCo*, the power company cannot validly point to the "lost sale to the cable company" as "its opportunity cost" of not being able to charge a higher "full market price" as a lost opportunity. The Court analogizes as follows:

> …if the government ran its own monopoly cable company, it would not make sense for the power companies to say, 'Even though we are not out any more money than before the taking, we are missing out on the opportunity to sell to the government at what we deem to the 'full market price' of this pole space.…('Special value to the condemner as distinguished from others who may or may not possess the power to condemn has long been excluded as an element of market value.') It should not make a difference if the government chooses to allocate the condemned property to private [cable] companies[39]

[39] See *Alabama Power*, 311 F.3d at 1369-70.

In a truly competitive market, there would be multiple pole owners with their own infrastructure, each vying for buyers to rent space on their poles. Under these circumstances, prices would tend to be bid down to levels approximating marginal cost, which is essentially the cost of make-ready, i.e., the costs of rearranging and adding space on an owner's poles. In the absence of competitive market conditions, the FCC method of charging cable companies for pole attachments (i.e., make-ready fees designed to cover the marginal costs of the pole attachment and a rental fee calculated from an allocation of ongoing direct costs based on the cable company's use of the pole) most closely approximates a truly competitive market rate and one that is consistent with the cost causation principles codified in Section 224.

Moreover, as discussed in my deposition,[40] Gulf Power is already being compensated for any value associated with the inability to exclude third party attachments by the designation of such attachments to Gulf Power's poles as a "taking" for which Gulf Power is receiving "just compensation" in the form of the regulated rate, which as found by the Court, exceeds the marginal cost of attachment. No additional compensation for the inability to exclude third party attachments is necessary, or as I understand it, permitted pursuant to *APCo*.

[40]Deposition of Patricia Kravtin at 208-210.

Furthermore, given the regulated cable rate provides just compensation to Gulf Power, there is similarly no validity to Gulf Power's claim that the difference between the cable rate and the statutory rate charged telecommunications providers represents a lost opportunity. Indeed, this very claim was considered by the Court in *APCo* and rejected.[41] Gulf Power has not presented any evidence to suggest it has not been able to accommodate all entities seeking to attach to its poles because of the presence of a cable company,[42] so there is simply no tangible lost opportunity to Gulf Power as pole owner associated with its charging cable operators based on the Cable Rate formula versus the Telecommunications Rate formula. Moreover, as discussed in my deposition,[43] and as found by the Commission and the Court,[44] the two formulas were derived for different purposes, and the fact they are based on a different allocation methodology, and are not directly comparable, does not alter the conclusion that both provide just compensation to the utility.

TO AVOID PERVERSE INCENTIVES AND UNECONOMIC OUTCOMES, THE CONCEPTS OF FULL CAPACITY AND LOST OPPORTUNITY MUST BE DEFINED BASED ON OBJECTIVE, VERIFIABLE STANDARDS THAT REFLECT THE ECONOMIC AND PRACTICAL REALITIES OF POLES, AND ARE CONSISTENT WITH INDUSTRY BEST PRACTICES.

Q. AS DESCRIBED EARLIER, THE SCENARIO CONCEIVED BY THE COURT UNDER WHICH A POWER COMPANY COULD SEEK COMPENSATION IN EXCESS OF THE REGULATED RATE IS VERY NARROWLY DRAWN, BY BEING TIED DIRECTLY TO ECONOMIC CONCEPTS SUCH AS FULL CAPACITY, ZERO-SUM, RIVALROUS, AND LOST OPPORTUNITY. NONETHELESS, ARE THERE OPPORTUNITIES FOR THE UTILITY TO TAKE ADVANTAGE OF THE OPENING GIVEN TO IT IN *APCO* ?

[41] See *Alabama Power*, 311 F.3d at 1371.

[42] See Deposition of Michael Dunn, November 16, 2005, at 118.

[43] See Deposition of Patricia Kravtin, March 15, 2006, 136-137,

[44] See *Alabama Power*, 311 F.3d at 1371.

A. Yes, there are. For the reasons discussed above describing the utility's ownership and control over this particular essential facility, the utility has every incentive to make subjective, self-serving determinations as to the satisfaction of the various elements of the Eleventh Circuit test so as to justify charging a rate higher than the regulated rate to existing cable attachers. In this context, examination of Gulf Power's case demonstrates its attempt to seek a rate many multiple times higher than the regulated rate, and to rely on economically unsupported, subjective reasoning and extrapolations in asserting the existence of full capacity/lost opportunity on the majority of its poles.

As noted above, the Court acknowledged the appearance of an anomaly if the power company is permitted to charge a higher "just compensation" rate for "full" poles, and a lower regulated rate for all others. Of greater concern, though, are the truly anomalous results that are likely to occur unless the standards to which a power company is held in proving that the two required conditions of full capacity and lost opportunity exist as an "economic reality" are objective, well-defined, and economically valid.

In the absence of objective, economically valid standards, there is no incentive for the utility to efficiently manage pole space or to take advantage of all available pole space. Indeed, the electric company could claim it is better off financially by *not* having to efficiently managing pole space or take advantage of all available pole space in order to justify denying access to a prospective attacher that it otherwise could have accommodated. Such a result would occur, because by doing so, it could charge all existing attachers (not just the attacher triggering the condition of full capacity and lost opportunity) an alternative (and if the utility had its way, higher "just compensation" rate).

Alternatively, Gulf Power appears to be taking the position that it does not need to actually *deny* access to a prospective attacher or to suffer *actual* unreimbursed expenditures in order to charge all existing attachers a higher "just compensation" rate. Gulf Power's position appears to be that it can deny access at its own unfettered discretion in lieu of accommodating a prospective attacher through the normal and customary fully-compensated make-ready process. Under Gulf Power's logic, Gulf Power's claim for a higher "just compensation" rate would be valid even if it was economically feasible and reasonable for Gulf Power to accommodate an additional attacher or even if Gulf Power had *in fact* made such an accommodation and been reimbursed for the cost caused by that attachment, because it theoretically could have denied access.

Q. WHAT CAN BE DONE TO PREVENT SUCH PERVERSE OUTCOMES FROM OCCURRING?

A. The only way to prevent Gulf Power from responding to such perverse incentives is to require that Gulf Power's demonstration of the conditions of full capacity and lost opportunity upon which the *APCo* test relies be based on objective, verifiable, and non-discriminatory standards. Full capacity should be defined to reflect the economic and practical realities of poles and be based on objective benchmarks that hold the power company accountable for industry best practices involving pole changeouts and rearrangements and the efficient use of all available pole capacity.

For example, the power company should be precluded from benefiting financially from visually observed "full" poles caused by code violations, inefficiencies, and/or other inferior pole practices that are inherently correctable, and whose correction results in

available capacity for additional attachments. For purposes of determining whether the *APCo* test is satisfied, *all* available pole capacity, including that normally accessible through routine maintenance, rearrangements, pole change-outs, and implementation of other efficient utilization "best practices," is appropriately taken into account. Because the power company can seek reimbursement from the new cable attacher for any cost directly attributed or caused by that attachment through make-ready, there is no material cost consequence to the utility in engaging in these normal and customary pole management practices.

With respect to the demonstration of lost opportunity, Gulf Power should be required to identify an actual buyer or use that has been excluded from the pole, for each pole for which Gulf Power seeks additional compensation, and to provide the kind of valid economic analyses described below in support of its claim.

Q. GIVEN THE STANDARDS YOU HAVE IDENTIFIED ABOVE, DO YOU FORESEE SITUATIONS WHERE GULF POWER CAN LEGITIMATELY SATSIFY THE DUAL CONDITIONS OF FULL CAPACITY AND LOST OPPORTUNITY ESTABLISHED IN *APCO*?

A. Yes. There are situations, albeit limited ones, in which Gulf Power can legitimately satisfy the dual conditions of full capacity and lost opportunity consistent with the economic reality standard inherent in *APCo* and on that basis seek additional compensation. (Again, for all other situations, Gulf Power is already receiving just compensation for use of its poles by cable companies via the FCC Cable Rate Formula and applicable make-ready charges). The situations in which Gulf Power could legitimately satisfy the dual conditions of full capacity and lost opportunity are those limited cases in which the utility can demonstrate both: (1) make-ready or pole change-

out is not possible for a given pole (again due to terrain, obstructions, or zoning restrictions) based on valid engineering considerations and adherence to industry best practices of pole utilization; *and* (2) that the utility has experienced a tangible lost opportunity as a result, in the form of actual foregone revenues or actual foreclosed opportunity for that pole based on valid economic analysis.

Q. CAN YOU BE SPECIFIC AS TO THE TYPE OF VALID ECONOMIC ANALYSIS THAT WOULD BE REQUIRED TO CREDIBLY SUPPORT A UTILITY'S CLAIM OF LOST OPPORTUNITY?

A. Yes. The type of economic analysis that would be required to support a utility's claim of lost opportunity is the kind of net present value analysis common in business case planning and the government franchise application review process. The required analysis would provide quantifiable and verifiable estimation of the differential between the revenues Gulf Power would have received from the presently attached cable company (who would necessarily have to be replaced by the new attachment to satisfy the full capacity prong of the *APCo* test) including rental rates and make-ready charges as compared with the revenues Gulf Power could reasonably expect to receive over some reasonable planning period (properly discounted to a present value basis) either from the new attacher or from a higher value use of its own. To be valid, the economic analysis demonstrating lost opportunity cannot be based on hypothetical assumptions. Rather, it must be based on real world factors and considerations that realistically compare the net revenue streams Gulf Power could reasonably expect to receive from the new attacher vis-à-vis the existing cable operator.

Q.CAN YOU PROVIDE EXAMPLES OF THE KIND OF REAL WORLD FACTORS AND CONSIDERATIONS THAT THE LOST OPPORTUNITY ANALYSIS WOULD PROPERLY INCORPORATE?

A. Yes. Such factors include, for example, whether the new attacher has been awarded a franchise to provide service, and if so, the length of its franchise as compared with the existing cable attacher; whether the new attacher has the technical, managerial, and financial resources to remain a viable going concern capable of paying applicable rental fees and maintaining its attachments up to code levels as compared with the existing cable attacher; and whether the new attacher would pay make-ready charges at the level of the existing cable company.

Indeed, it is within the realm of possibility, that a truly objective, realistic analysis of the net present value of revenues Gulf Power would receive from the existing cable attacher vis-à-vis those expected from the new attacher would show the former exceeding the latter - in which case, there would be no quantifiable lost opportunity. This highlights all the more reason why this type of analysis must be required.

Q.WHAT IS YOUR RESPONSE TO GULF POWER'S ASSERTIONS THAT THE EVIDENTIARY STANDARDS FOR DEMONSTRATING THE DUAL CONDITIONS OF FULL CAPACITY AND LOST OPPORTUNITY THAT ARE DELINEATED IN YOUR TESTIMONY AND IN YOUR DEPOSITION TESTIMONY ARE UNDULY BURDENSOME.

A.In making such an argument, Gulf Power ignores the fact that it is already receiving from Complainants "just compensation" in excess of marginal cost in the form of the FCC Cable Formula rates (Complainants are actually paying rental rates in excess of the FCC Cable Formula rate) and applicable make-ready charges. Under *APCo*, the utility is permitted to seek alternative just compensation in excess of marginal cost only in those instances where there is a verifiable lost opportunity. For the reasons described above,

the standards for Gulf Power's showing that I have delineated are no more than that required to ensure economically meaningful satisfaction of the *APCo* criteria.

Obviously, it is in Gulf Power's self-interest to be subject to the weakest of evidentiary standards and burden of proof requirements, and it is not surprising that the utility would take issue with the standards set forth in my testimony. However, from an objective standpoint, if the evidentiary standards to which Gulf Power is to be held are not tied to objective, verifiable, economically meaningful, and non-discriminatory standards, Gulf Power will be a position to exploit its monopoly ownership of the poles, charge inefficiently high rates, and mismanage its pole space in order to indiscriminately extract additional "value" from the attacher. The evidentiary requirements spelled out in this testimony and in my deposition testimony are economically and practically sound, and consistent with the "economic reality" standard for poles set forth in the *APCo* decision.

DETERMINATIONS ON A POLE-SPECIFIC BASIS ARE REQUIRED TO SATISFY THE ECONOMIC REALITY STANDARD INHERENT IN THE APCO TEST; STATISTICAL EXTRAPOLATIONS, BY DESIGN, AND ESPECIALLY AS PROPOSED BY GULF POWER, ARE FLAWED AND INADEQUATE.

Q. YOU DISCUSS ABOVE THE STANDARDS TO WHICH GULF POWER SHOULD BE HELD IN DEMONSTRATING FULL CAPACITY AND LOST OPPORTUNITY IN ORDER TO AVOID PERVERSE INCENTIVES AND UNECONOMIC OUTCOMES. ARE THERE OTHER STANDARDS TO WHICH GULF POWER'S DEMONSTRATION PURSUANT TO *APCO* SHOULD BE HELD?

A. Yes. As stated in the *APCo* decision, "before a power company can seek compensation above marginal cost, it must show *with regard to each pole* that (1) *the pole* is at full capacity" and either of two other conditions (i.e., another buyer waiting in the wings, or a higher-valued use by the power company) that would demonstrate an

actual lost opportunity occurred in conjunction with the first. As indicated by the italicized language in the above citation to *APCo*, the showing required by the Court is specified "*with regard to each pole.*" On a strictly empirical basis, to make such a showing will require data on individual poles be collected and examined.

Q. DOES THE *APCO* REQUIREMENT OF A POLE-BY-POLE SHOWING MAKE SENSE FROM AN ECONOMIC PERSPECTIVE?

A. Yes, it does. The crux of the *APCO* criteria lies in the "economic reality" of whether the utility has actual lost opportunity foreclosed. As discussed previously, it is hard to see how this economic reality standard could be demonstrated on the basis of hypothetical, generalized, or extrapolated data since operating conditions concerning pole capacity and foregone lost opportunity, will by their very nature, vary not only area to area, but pole to pole. Permits to attach to utility poles are applied for and granted on a pole-by-pole basis, and determinations as to the necessity and possibility of make-ready, rearrangements, and pole change-outs in order to accommodate pole attachments are made on a pole-to-pole basis.

Q. DOES GULF POWER SEEM ABLE TO PROVIDE THE INFORMATION NEEDED TO MAKE A POLE-BY-POLE DETERMINATION OF FULL CAPACITY AND LOST OPPORTUNITY AS REQUIRED UNDER *APCO*?

A. No. Gulf Power has not to date provided the kind of specific information required under *APCo* on a pole-specific basis and does not seem poised to be able to provide such information. By Gulf Power's own admission, it "does not track its future space needs on a pole by pole basis."[45] Gulf Power has not provided pole-specific information in response to Complainants' interrogatories seeking data on among other things: "the location and individual number of poles Gulf Power claims to be at 'full capacity,' as

well as the specific reason or reasons why Gulf Power so contends;" and "the number of Gulf Power poles that have been changed out to accommodate attachments of Complainants, the location of any alleged change-outs, the reasons for each change-out, and an identification of each instance in which Gulf claims it was not reimbursed for the costs of such a change-out." [46] Gulf Power has also "failed to identify a single specific instance in which it has advised an attacher, particularly Complainants, that it has actually demonstrated a bona fide need for space and then properly reserved space for its own operations."[47]

Gulf Power cannot legitimately prove there was an actual buyer waiting in the wings or higher-valued use of its own *excluded* from a pole due to lack of available space, if information on space needs and utilization is not tracked on a pole-by-pole basis. It would appear that Gulf Power is anticipating being able to rely on generalized assertions or extrapolations, neither of which in my opinion would be sufficient to satisfy the 'economic reality" standard of full capacity and lost opportunity established by the Court or to prevent Gulf Power from responding to perverse incentives.

Q. HAD GULF POWER ORIGINALLY REPRESENTED THAT IT WOULD BE PROVIDING INFORMATION ON A INDIVIDUAL POLE BASIS?

A. Yes. It is my understanding, based on information provided by Gulf Power earlier in this proceeding, that Gulf Power originally represented it would provide substantive information based on the Osmose audit for each of its 150,000 joint use poles.[48] It was

[45] See Gulf Response to Interrogatory No. 35.

[46] See Complainants Motion to Compel, dated July 11, 2005 at 11. See also Complainants Third Motion to Compel Production of Documents, Further Responses to Interrogatories, dated October 7, 2005, at 18.

[47] See also Complainants Third Motion to Compel Production of Documents, Further Responses to Interrogatories, at 20.

[48] See *Gulf Power's Final Report on Pole Survey*, October 31, 2005 at 1, which states: "Gulf Power's original goal, as set forth in the Osmose Statement of Work, was to conduct an audit of all 150,000 joint

not until Gulf Power's July 2005 Status Report on Pole Survey, did Gulf Power first mention the possibility that its survey might not encompass the entire population of joint use poles, although Gulf Power was not specific at that time. Citing generally to Hurricane Dennis, Gulf Power indicated that "the full survey may include data *with respect to less than* Gulf Power's entire service territory."[49] In the July Report, Gulf Power indicated that it had surveyed only 9,649 poles (representing only about 6% out of the total 150,000) joint use poles "on first pass," with all of those poles located in the Pensacola, Florida area. Although, the total number of poles identified to be surveyed according to the July Report was still listed as the full 150,000.[50]

In its August 29, 2005 Response to Complainant's Motion to Dismiss, Gulf Power was still maintaining its commitment to produce "unrefutable, pole-by-pole evidence of 'crowded' or 'full capacity' in the form of the Osmose Audit and the major build-out make-ready work orders."

It was not however until its Final Report on Pole Survey, dated October 31, 2005, did Gulf Power clarify the full extent to which it planned to rely on statistical extrapolations to make its case, even though, Gulf Power's decision to halt the surveying of poles was apparently made about five months prior. Gulf Power witness Tessieri revealed that the decision to halt the Osmose survey work was actually made sometime back in May, 2005, a couple of months prior to the July 10, 2005 landfall of Hurricane Dennis and the

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use poles." See also Gulf Power's Itemization of Evidence, August 31, 2005, and Gulf Power's Description of Evidence, January 8, 2004.

[49] *July Status Report*, at 2,*emphasis added.*

[50] *Id.* at 1.

issuance of the July Status Report which continued to represent the number of poles Gulf would survey as the full 150,000.[51]

In the October Report, Gulf Power indicated its plan to survey approximately 5,000+ additional poles, which would bring the total number of audited poles to 14,649, although this would appear to conflict with Gulf Power's decision the prior May to halt all survey work. In any case, the revised figure is less than 10% of the total population of 150,000 joint use poles - the number of poles that were originally supposed to be covered in the Osmose audit. Gulf Power did not identify where the additional 5,000 poles to be audited were located, only that "it may be as late as January 2006 before the work can be completed."[52] In addition, in the October Report, Gulf Power first presented a proposed methodology for extrapolating the results of its "first pass" of audits in the Pensacola area. Gulf Power simply took the percentage of poles (73.68%) purportedly found to be crowded in the "first pass" audit of 9,640 poles in Pensacola and applied that across-the-board to every joint use pole in its system.[53]

Both Gulf Power's methodology and the reasoning underlying that methodology are critically flawed.

Q. IN WHAT RESPECTS IS GULF POWER'S EXTRAPOLATION METHODOLOGY AND THE REASONING UNDERLYING THAT METHODOLOGY FLAWED?

A. First, inherent in any sampling or statistical extrapolation is the loss of precision or accuracy of results since one is necessarily relying on a subset of the population to

[51] See Deposition of David Tessieri, February 23, 2006, at 178-187, 182-184, and 270-281.

[52] *Gulf Power Final Report on Pole Survey*, October 31,2005, at 2.

represent that population. Only by performing a census of the entire population, can one avoid this type of loss of precision or accuracy. Of course, even in the case of a census, one cannot expect results to be 100% accurate due to measurement errors, but at least there is not the compounded imprecision due to sampling error.

Sampling error is the difference between the value of the sample statistic (for example, in this instance, the finding of 73.68% "crowded") and the population statistic (the true, but unknown percentage of "full capacity" poles). Sampling error exists for every sample, except in the special case where the sample is equal to the entire population. Generally speaking, the higher the level of precision needed, the larger the sample size required. Another rule of thumb is the more diverse the population, the larger the sample you will need to achieve a given level of statistical reliability. Where the population to be sampled is relatively heterogeneous (as is the case with poles), the precision of sample results can generally be improved by stratification of the sample into more uniform parts (e.g., distinct geographic or service areas). Moreover, to have a greater level of statistical "confidence" in your results, you have to be willing to accept a larger sampling error.

However, because the Eleventh Circuit test requires a showing "with regard to *each* pole," it does not appear that *any* measurable degree of statistical imprecision such as inherent to sampling would be acceptable. Statistical extrapolation, by its very design, cannot provide the "unrefutable, pole-by-pole evidence" initially promised by Gulf Power.

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[53] *Id.*

The levels of imprecision and variability inherent in any given statistical extrapolation are quantifiable in statistical terms. By contrast, Gulf Power's Final Report offers only vague, qualitative language that is absolutely void of meaning from a statistical perspective:

According to Gulf Power:

> "This percentage [73.68%] is absolutely accurate for the 9,663 poles collected, highly accurate for Gulf Power's largest attacher (Cox), and reasonably accurate for the areas served by the other three Complainants (Comcast, Mediacom, and Brighthouse)."[54]

Gulf Power's assertions that the results of it limited survey are "highly accurate" and "reasonable accurate" are just that, assertions. These types of statements do not substantively address the statistical validity of Gulf Power's sampling methodology and/or the likelihood that the results of that sampling accurately represent the entire population of individual poles across Gulf Power's various serving areas and the varied population of attachers across those serving areas with a level of precision that would satisfy the *APCo* test. Gulf Power's sweeping extrapolation and generalizations fail to acknowledge the highly- localized differences in terrain, obstructions, zoning, and attaching entities across Gulf Power's various service areas.[55]

It is my understanding that the burden lies squarely with Gulf Power to provide compelling statistical evidence in support of the notion that an unstratified sampling of

[54] Gulf Power's Final Report on Pole Survey, at 2-3.

[55] See Summary Expert Report of Michael Harrelson for a discussion of the very individualized conditions extant on particular poles and in particular service areas.

some 9,600 poles in the "first pass" in the Pensacola area accurately represents, with a degree of accuracy and precision required to meet the *APCo* test showing, the conditions "with regard to each pole," for each of the roughly 140,000 unaudited poles across its various service areas. To date, no such statistical evidence has been provided.

Q.IS THERE A SECOND MAJOR PROBLEM CONCERNING GULF POWER'S STATISTICAL EXTRAPOLATIONS?

A. Yes. Perhaps even more important than the issue of the sampling imprecision of Gulf Power's statistical extrapolations is the critical flaw in the underlying design and measurement of what Gulf Power is sampling. The high percentage of "crowded" poles found by Osmose in the Pensacola area is strictly an artifact of the definition Gulf Power used for "crowded." As explained by expert witness for the Complainants Michael Harrelson, Gulf Power defines "'crowded' poles,' which it [wrongly in my opinion] equates with poles 'at full capacity,' in a very narrow and unrealistic way" by evaluating capacity "without looking at industry custom or even Gulf Power's own pole practices that govern construction and remediation of violations."[56]

As described, Gulf Power defined "crowded" or "full capacity" poles as any pole that could not accommodate an additional attachment without make-ready, or that had required make-ready to accommodate an additional attachment. Since it is common knowledge, and openly acknowledged by Gulf Power, that make-ready is routinely performed in connection with the accommodation of pole attachments, it is of no surprise that a large percentage of the sampled poles would meet this uneconomically sound definition of full capacity, if the condition of the pole's capacity was evaluated only on a

[56] See Summary Expert Report of Michael Harrelson, March 3, 2005.

static basis, at the snapshot moment just prior to the make-ready work that harnessed greater effective capacity and enabled Gulf Power to accommodate an additional attachment.

Similarly, given the nature and extent of code violations on Gulf Power's poles identified by Mr. Harrelson, it is of no surprise that a large percentage of the sampled poles would meet Gulf Power's flawed definition of full capacity if the condition of the pole's capacity was once again evaluated on a static basis, at the snapshot moment before needed corrections for code violations that would free up effective capacity were made.

Q. BASED ON THIS SECOND MAJOR FLAW, AND IGNORING FOR THE MOMENT THE OVERARCHING FLAW IN GULF POWER'S RELIANCE ON A LIMITED SAMPLE OF POLES, WHAT IS YOUR ASSESSMENT OF THE MEANING OF GULF POWER'S PURPORTED FINDING OF 73.68% CROWDED POLES?

A. By effectively counting all poles that either have had make-ready or are candidates for makeready, or that suffer from correctable code violations, Gulf Power's audit is in effect designed to identify the polar opposite of "full capacity." The 73.68% of poles identified by Gulf Power in the Pensacola area as being "crowded" are, in reality, poles for which effective capacity was made available to accommodate an additional attachment, or could be readily made available should a future request for attachment be forthcoming. By the economic reality standard established in *APCo*, the condition of these poles is inherently nonrivalrous and therefore cannot properly be classified as "full capacity" poles.

Thus, even if one accepted as an empirical matter (which I do not) the notion that statistical extrapolation of this kind provides sufficient precision and reliability to satisfy

the pole-by-pole showing required by *APCo*, because Gulf Power's extrapolation is based on a faulty definition of "full capacity," the results of the extrapolation are necessarily flawed.

In other words, even Gulf Power's extrapolation was found to be from "a meaningful sampling"[57] – which again, Gulf Power has presented is no evidence to suggest that is the case - the results of that extrapolation will not be meaningful if the underlying attribute (i.e., "full capacity") being measured is improperly defined, as is the case here.

THE REPLACEMENT COST METHODOLOGY AND RATE FORMULAS PROPOSED BY GULF POWER AS THE BASIS OF ALTERNATIVE "JUST COMPENSATION" HAVE NO RELATION TO THE FUNDAMENTAL ECONOMIC PRINCIPLES OF COST CAUSATION, THE PRACTICAL AND ECONOMIC REALITIES OF POLES, OR TO THE PURPORTED BASIS OF GULF POWER'S CLAIM IN THIS CASE, I.E., THE PER-POLE DEMONSTRATION OF FULL CAPACITY AND LOST OPPORTUNITY PURSUANT TO *APCO*.

Q. EARLIER IN THIS PROCEEDING, GULF POWER ADVANCED A NUMBER OF ALTERNATIVE VALUATION METHODS FOR CALCULATING A JUST COMPENSATION RATE. CAN YOU DESCRIBE THE METHODOLOGY GULF POWER HAS DECIDED TO ENDORSE FOR PURPOSES OF THIS PROCEEDING?

A. Yes. Earlier in this proceeding, Gulf Power identified a number of different possible valuation methods for calculating a just compensation rate, including the (1) sales comparison approach; (2) federal concessions leasing model; and (2) current replacement cost approach.[58] However, during the course of the proceeding, Gulf Power has apparently selected the replacement cost approach as its recommended methodology, and the only alternative just compensation rates provided by Gulf Power in this case are

[57] FCC, Memorandum Opinion and Order, dated October 12, 2005, at 4, note 3.

[58] See Gulf December 3, 2004 filing, "Preliminary Statement on Alternative Cost Methodology.

based upon that particular methodology. Moreover, Gulf Power's expert witness, Roger Spain, in endorsing Gulf Power's choice of valuation methodology, has gone so far as to present reasons why the other possible methodologies identified earlier by Gulf Power including the sales comparison or market approach and the income approach are impractical to apply in the case of valuing poles.[59]

Q. CAN YOU DESCRIBE THE BASIS OF MR. SPAIN'S ENDORSEMENT OF THE REPLACEMENT COST APPROACH IN THIS CASE?

A. Mr. Spain's endorsement of the replacement cost approach is first and foremost based on his assumption that "the appropriate standard of value is fair market value," which he defines as "the estimated amount, expressed in terms of money, that may reasonably be expected for a property in an exchange between a willing buyer and a willing seller, with equity to both, *neither under any compulsion to buy or sell*, and both fully aware of all relevant facts."[60] In Mr. Spain's opinion, "the replacement cost of an asset is an accepted starting point for determining the fair market value of equipment."[61] Beyond the very general reasons Mr. Spain provides in support of the replacement cost approach as a means of measuring the "fair market value" of poles, Mr. Spain provides no specific support for Gulf Power's particular replacement cost methodology and calculations.

[59] Summary Report of Roger Spain, March 3, 2006, at 5.

[60] *Id.* at 3, *emphasis added*.

[61] I*d.*

Q.DO YOU AGREE WITH MR. SPAIN THAT THE REPLACEMENT COST APPROACH IS AN ACCEPTABLE VALUATION METHOD FOR PURPOSES OF THIS CASE ?

A. No, I do not. The overarching assumption underlying Mr. Spain's support for the replacement cost method in this case is its purported compatibility with determining a "free market value" for pole space. I strongly disagree with Mr. Spain's underlying assumption of a "free market value" for poles, and consequently find his strongest rationale for supporting Gulf Power's replacement cost methodology to be invalid.

As previously recognized by the Commission and others, the concept of "free market value" and accordingly a replacement cost methodology designed to reflect that concept is not applicable with respect to pole attachments. As found by the Commission in its *APCo* opinion:

> However, the Supreme Court has concluded that where a property has no market, when market value is too difficult to find, or when the application of a market value standard would result in manifest injustice, other standards and other data must be applied. Because of the unusual nature of pole attachments, and the nature of the property interest conveyed, the three standard appraisal techniques for determining market value, comparable sales, income capitalization, and replacement costs less depreciation, are particularly unsuited for valuing pole attachments.[62]

One of the key reasons for the "particular unsuitability" of fair market value approaches is the asymmetric bargaining power possessed by the utility, as the monopoly owner of the poles, as compared to the cable company and other third party attachers, as lessees. As discussed in earlier sections of this testimony, cable operators and utilities are not in an equal position to "bargain" over rents. Utilities are owners, whereas cable operators

[62] *Alabama Cable Telecommunications Ass'n v. Alabama Power Co.*, 16 FCC Rcd. 12209 (2001) at ¶ 53.

are mere lessees and lack rights of ownership, planning, and control. Plain and simply, there is no "free market" for pole space. Conditions required for open or fair market valuations do not therefore exist.

Given the unequal bargaining power that the utility company can bring to bear, any claim that third party attachers have "freely negotiated" with the utility or that neither buyer or seller is "under any compulsion to buy or sell" (from the definition of free market value presented by Mr. Spain) is not valid. The Commission reached this finding in its *APCo* opinion:

> Despite Respondent's and other utilities' arguments to the contrary, there is no non-monopoly market in pole attachments. There are no arm's length transactions reflecting the prices paid by willing buyers and sellers for comparable pole attachments.[63]

While Gulf Power cites to higher rates paid by other attachers as evidence of a free market for pole space, such rates are not valid proxies for free market value. It is not at all unusual for firms early in their life cycles to accept high rates for access to essential facilities, even though those rates may not be sustainable in the long run, in order to gain entry and establish a foothold in a market. However, such transactions, which are consummated "under compulsion to buy" cannot be relied on as representative free market benchmarks.

Similarly, the higher rental rates embodied in various joint owner agreements between electric and telephone utilities are not representative of "free market" benchmarks either, because of the variable and non-replicable terms and conditions surrounding ownership

[63] *Id*., at ¶55.

rights, planning and control oversight, and emphasis on parity. Notwithstanding the additional benefits enjoyed by joint owners, it would appear however that the joint use agreements between Gulf Power and telecommunications carriers such as BellSouth and Sprint, actually provide for lower rates after normalization for the greater space requirements of the telecom provider than the replacement cost "just compensation" rates for cable attachers proposed by Gulf Power.[64]

Two other rationales related to the concept of fair market value are identified by Mr. Spain in support of Gulf Power's replacement cost methodology. The first is the asserted need to reflect the value of the utility's pole space as part of a larger elevated corridor or distribution system. However, as discussed earlier in this testimony in the discussion of ownership rights unilaterally enjoyed by the utility, the issue of corridor value is another utility argument that the Commission previously considered and rejected for a number of solid reasons.[65] As found by the Commission, under the terms and conditions of utility pole attachment agreements, the value of the integrated elevated corridor is not conveyed to the attacher, it is retained by the utility as owner of the pole network.

The second related rationale suggested by Mr. Spain is the asserted need to reflect the risk responsibility that falls to the owner of the pole network. The fallacy of this argument was also discussed earlier in my testimony, where the following key points in rebuttal were made: poles are very long-lived and the bulk of the poles that are the subject of Gulf Power's claim are already in service; a large percentage of the utility's poles are co-owned with the telephone company; poles and the obligation to maintain,

[64] See Deposition of Rex Brooks, September 16, 2005, at 18-22.

[65] See *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001) at ¶57.

repair, and replace them into perpetuity have been allowed into Gulf Power's rate base and subject to full cost recovery from the electric ratepayers for whom the pole network was built to serve; and finally, any costs that would not be incurred but for third party attachers are directly reimbursable to the utility through the charging of make-ready.

Q. IN ADDITION TO YOUR FUNDAMENTAL DISAGREEMENT WITH MR. SPAIN CONCERNING THE GENERAL APPLICABILITY OF A "FREE MARKET VALUE" TO POLES, ARE THERE OTHER REASONS WHY YOU BELIEVE GULF POWER'S PROPOSED REPLACEMENT COST METHOD IS INAPPROPRIATE AS A BASIS FOR A JUST COMPENSATION RATE.

A. Yes, as discussed at length in my deposition testimony,[66] there are many compelling reasons, given the practical and economic realities of poles, why the replacement cost approach is not appropriate as a means of valuing the use of a utility's pole space for just compensation purposes. The replacement cost method is inappropriate from the broad perspective of the utility pole network as a whole, from the more narrow perspective of the individual pole, and most decidedly, from the perspective of satisfying the economic reality standard established in *APCo*.

Q. COULD YOU FIRST ADDRESS THE INAPPROPRIATENESS OF USING A REPLACEMENT COST METHODOLOGY FROM THE BROAD PERSPECTIVE OF THE UTILITY NETWORK AS A WHOLE.

A. There are many reasons why the typical arguments advanced in support of replacement costs generally are not applicable to the pricing of a utility's pole network. As the Commission has heard these reasons on many occasions, I will highlight only a few key ones. Related to the absence of a free functioning competitive market for poles, there is no need for economic "cues" from reproduction cost-based prices to guide optimal pole investment. Poles are extremely long-lived assets with little ongoing

[66] Deposition of Patricia Kravtin at 107-116.

investment in technology. Pole investment and placement decisions are driven by the needs of the pole owner, not those leasing space on the pole, and the costs of those investment and placement decisions are recoverable through rates for the utility's core regulated electric service. Electric utilities have not been deterred from investing in the optimal amount of pole plant of the height, type and class they deem optimal for their own operational needs, and cable operators have not over-consumed pole space as they would be required to pay for any over-consumption of pole space in the form of make-ready costs.

As discussed earlier in this testimony, and as found by the Commission, from a practical perspective, pole systems cannot be reproduced due to zoning, environmental, financial, and other constraints.[67] It therefore makes little economic sense to use replacement costs as a proxy for an attacher's hypothetical stand-alone network since such a network practically cannot get built. Similarly, there is no need to use replacement costs as a proxy for the hypothetical avoided cost of an attacher going underground, which is typically much more expensive than the cost of pole attachment. Because there no competitive market for poles, there is no market process in action to drive the down costs of pole construction or any potential alternatives such as going underground to competitive levels. As mentioned earlier, allowing the utility to base its rental charge on its own higher, hypothetical pole replacement cost or on the hypothetical avoided cost to the attacher of stand-alone pole construction or underground installation, serves no purpose other than to permit the utility to exploit its monopoly ownership of the poles

[67] See *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001),at ¶57.

and to extract additional "value" from the attacher well in excess of the efficient or actual cost of the pole attachment.

Q. COULD YOU NEXT ADDRESS THE INAPPROPRIATENESS OF USING A REPLACEMENT COST METHODOLOGY FROM THE MORE NARROW PERSPECTIVE OF THE INDIVIDUAL POLE.

A. Yes. The use of a replacement methodology for pole rental rates does not make economic sense at the individual pole level either. As noted earlier, the majority of poles are not being replaced in any given year and enjoy long economic lives. For these poles, replacement costs are not relevant. For the relatively small percentage of poles that are replaced, for the ones that are being replaced by the electric company to serve their core electric utility service, costs are recoverable through regulated rates for those customers. For the poles that would not be replaced but for third party attachers, the costs are recoverable through make-ready charges, set unilaterally by the utility. If the third party attacher refuses to pay the make-ready as unilaterally determined by the utility, the pole is not replaced.[68] In effect, make-ready charges are replacement costs applied at the individual pole level, so there is no efficiency gain in building in replacement costs in the rental formula. There is only duplication of cost recovery and extraction of monopoly rents, in violation of the principles of cost causation embodied in Section 224.

[68]There are a variety of reasons why a potential attacher might refuse to pay makeready, including, an excessively high cost set by Gulf, or a change in the attacher's business plan. In any case, if the attacher refuses to pay make-ready, that attacher is not an actual "bidding firm" for purposes of demonstrating a tangible lost opportunity pursuant to *APCo*.

Q. FINALLY, COULD YOU ADDRESS THE INAPPROPRIATENESS OF USING A REPLACEMENT COST METHODOLOGY IIN THE CONTEXT OF THE ECONOMIC REALTITY STANDARD OF FULL CAPACITY AND LOST OPPORTUNITY ESTABLISHED IN *APCO*.

A. Yes. First, as a threshold matter, as has been made clear in the deposition testimony and expert testimony of Gulf Power witnesses, Gulf Power's use of replacement costs centers around Gulf Power's desire to extract more *value* from cable attachers. At numerous times throughout the course of this proceeding, Gulf Power and its witnesses have alluded to the value of replacement, the value of the hypothetical stand-alone construction of a pole network or the avoided cost of going underground, the value of exclusion, the value of the elevated corridor, and the "fair market value" (which where no free market exists effectively degenerates into extraction of value from the consumer). For example, according to Gulf Power witness Terry Davis:

> I see the value to the cable company to be represented by replacement cost, because that is a reflection –a representation of what it would cost the cable company to go out and put up poles themselves; so there is a value to them.[69]

By contrast, the economic reality standard established in *APCo*, has nothing to do with *value* to the taker. Indeed, it is quite the opposite. As noted previously, the legal principle guiding *APCo* is that in a taking, just compensation is based on loss to the owner, not value to the taker. In this context, Gulf Power's proposed use of replacement costs for purposes of a claim for additional just compensation is totally off the mark, since its orientation is extraction of value from cable companies as pole attachment customers, versus quantification of actual loss to Gulf Power as the pole owner.

[69] Deposition of Terry Davis , November 18, 2005, at 125.

Moreover, under the terms of *APCo*, the only time when a claim for additional compensation relative to the regulated rate can be made by a utility is in the case where it can demonstrate both full capacity and lost opportunity for a given pole. As discussed in the prior answer, Gulf Power's proposed replacement costs have no relevant economic connection to the fundamental conditions of supply present on an individual pole.

As previously stated, the only poles for which Gulf Power could even arguably seek a rate based on a new pole replacement cost pursuant to the *APCo* criteria which requires a showing of both full capacity and lost opportunity would be poles that would not have been replaced *but for* an additional attachment and as to which costs Gulf Power had not already been reimbursed through make-ready charges or rental rates paid by the additional attacher. Gulf Power's replacement cost analysis contains no calculations of this sort. Gulf's analysis contains no new elements specific to the *APCo* criteria of full capacity and lost opportunity.

Rather, Gulf Power's replacement cost analysis is essentially a reincarnation of the hypothetical "replacement" costs soundly rejected by the Commission and Courts in the past. As found by the Commission in the case of *Alabama Cable Telecommunications Ass'n*:

> "Respondent was unable to offer a reasonable proposal for implementing this methodology [replacement cost less depreciation], opting instead for a permutation of the Commission's formula, manipulating the various elements to result in a higher rate. Although Respondent argues that the replacement cost appraisal methodology will result in higher pole attachment rates, this theory is not supported by Respondent's calculations. Many of the changes in methodology that Respondent incorporates in its calculations,

> such as the amount of space occupied, the average number of attaching entities, pole height presumptions…and other increased expenses are not related to a replacement cost methodology."[70]

As described in the cited text above, Gulf Power's replacement cost calculations are more accurately described as another attempt to manipulate the existing FCC formula methodology using previously proposed adjustments to produce a higher rate result than as a meaningful response to the *APCo* criteria. Many features of Gulf Power's replacement cost methodologies presented in this case have been previously considered and rejected by the Commission in the past for being rate driven as opposed to cost-based.

These features include the use of current-year replacement pole investment cost, inclusion of investment accounts "specific to the electric utility's core business services and not related to the general cost of pole plant," and unsupported allocations of unusable space. These types of adjustments were previously discussed in the section of my testimony addressing the FCC Cable Formula rate and shown to be inconsistent with the principles of cost causation embodied in Section 224 of the Communications Act and reflected in the FCC Cable Formula for pole attachments.

[70] See *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001), at ¶58.

CONCLUSION

Q. DO YOU HAVE ANY BRIEF CONCLUDING REMARKS TO MAKE AT THIS TIME?

A. The FCC Cable Formula Rate, which together with make-ready charges, exceeds the marginal cost of pole attachment, and provides just compensation to Gulf Power for the use of its pole space by third party attachers. Notwithstanding this "known fact," the Eleventh Circuit court in its *APCo* decision established a two-prong criteria by which utilities, such as Gulf Power, can seek alternative just compensation relative to the regulated rate. Under the *APCo* criteria, any reimbursement over and above marginal cost must be tied to a showing of *both* full capacity and lost opportunity on an individual pole basis.

Unless Gulf Power's showing in this case is held to objective, verifiable, economically meaningful, and non-discriminatory standards as described in this testimony and in my deposition testimony, Gulf Power will be a position to exploit its monopoly ownership of the poles, charge inefficiently high rates, and mismanage its pole space in order to indiscriminately extract additional "value" from the attacher. Gulf Power's replacement cost methodology and the proposed "just compensation" rates derived using that methodology reflect Gulf Power's attempt to do the latter and should be rejected as totally inconsistent with the economic reality standard of full capacity and lost opportunity established in *APCo*.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Attachment 1

Patricia D. Kravtin

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Summary

Consulting economist with specialization in telecommunications, cable, and energy markets. Extensive knowledge of complex economic, policy and technical issues facing incumbents, new entrants, regulators, investors, and consumers in rapidly changing telecommunications, cable, and energy markets. Oriented toward competitive, open-market strategies that carefully balance interests of major stakeholders.

Experience

CONSULTING ECONOMIST

2000–Present Independent Consulting Swampscott, MA

- Providing expert witness services and full range of economic, policy, and technical advisory services in the telecommunications, cable, and energy fields.

SENIOR VICE PRESIDENT/SENIOR ECONOMIST

1982–2000 Economics and Technology, Inc. Boston, MA

- Active participant in regulatory proceedings in over thirty state jurisdictions, before the Federal Communications Commission, Federal Energy Regulatory Commission, and other international regulatory authorities on telecommunications, cable, and energy matters.

- Provided expert witness and technical advisory services in connection with litigation and arbitration proceedings before state and federal regulatory agencies, and before U.S. district court, on behalf of diverse set of pubic and private sector clients (see Record of Prior Testimony).

- Extensive cable television regulation expertise in connection with implementation of the Cable Act of 1992 and the Telecommunications Act of 1996 by the Federal Communications Commission and local franchising authorities.

- Led analysis of wide range of issues related to: rates and rate policies; cost methodologies and allocations; productivity; cost benchmarking; business case studies for entry into cable, telephony, and broadband markets; development of competition; electric industry restructuring; incentive or performance based regulation; universal service; access charges; deployment of advanced services and broadband technologies;

and access to pole attachments and other rights-of-way.

- Served as advisor to state regulatory agencies, assisting in negotiations with utilities, non-partial review of record evidence, deliberations and drafting of final decisions.

- Author of numerous industry reports and papers on topics including market structure and competition, alternative forms of regulation, patterns of investment, telecommunications modernization, and broadband deployment (see listing of Reports and Studies).

- Invited speaker before various national organizations, state legislative committees and participant in industry symposiums.

RESEARCH/POLICY ANALYST

1978–1980 Various Federal Agencies Washington, DC

- Prepared economic impact analyses related to allocation of frequency spectrum (Federal Communications Commission).

- Performed financial and statistical analysis of the effect of securities regulations on the acquisition of high-technology firms (Securities and Exchange Commission).

- Prepared analyses and recommendations on national economic policy issues including capital recovery. (U.S. Dept. of Commerce).

Education

1980–1982 Massachusetts Institute of Technology Boston, MA

- Graduate Study in the Ph.D. program in Economics (Abd). General Examinations passed in fields of Government Regulation of Industry, Industrial Organization, and Urban and Regional Economics.

- National Science Foundation Fellow.

1976–1980 George Washington University Washington, DC

- B.A. with Distinction in Economics.

- Phi Beta Kappa, Omicron Delta Epsilon in recognition of high scholastic achievement in field of Economics. Recipient of four-year honor scholarship.

Prof. Affiliation

American Economic Association

Reports and Studies
(authored and co-authored)

"Report on the Financial Viability of the Proposed Greenfield Overbuild in the City of Lincoln, California," prepared for Starstream Communications, August 12, 2003.

"Assessing SBC/Pacific's Progress in Eliminating Barriers to Entry, The Local Market in California is Not Yet 'Fully and Irreversibly Open," prepared for the California Association of Competitive Telecommunications Companies (CALTEL), August 2000.

"Final Report on the Qualifications of Wide Open West-Texas, LLC For a Cable Television Franchise in the City of Dallas," prepared for the City of Dallas, July 31, 2000.

"Final Report on the Qualifications of Western Integrated Networks of Texas Operating L.P. For a Cable Television Franchise in the City of Dallas," prepared for the City of Dallas, July 31, 2000.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" prepared for The Division of Public Utilities, March, 2000.

"Building a Broadband America: The Competitive Keys to the Future of the Internet," prepared for The Competitive Broadband Coalition, May 1999.

"Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30," prepared for AT&T and MCI Telecommunications, June 1998.

"Analysis of Opportunities for Cross Subsidies Between GTA and GTA Cellular," prepared for Guam Cellular and Paging, submitted to the Guam Public Utilities Commission, July 11, 1997.

"Reply to Incumbent LEC Claims to Special Revenue Recovery Mechanisms," submitted in the Matter of Access Charge Reform in CC Docket 96-262, February 14, 1997.

"Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the 'Gap' between embedded and forward-looking costs," submitted in CC Docket 96-262, January 29, 1997.

"Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the 'Gap' between Historical Costs and Forward-looking TSLRIC," Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, submitted in FCC CC Docket 96-98, May 30, 1996.

"Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, March 1, 1996.

"Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, December 1995.

"The Economic Viability of Stentor's 'Beacon Initiative,' exploring the extent of its financial dependency upon revenues from services in the Utility Segment," prepared for Unitel, submitted as evidence before the Canadian Radio-television and Telecommunications Commission, March 1995.

"Fostering a Competitive Local Exchange Market in New Jersey: Blueprint for Development of a Fair Playing Field," prepared for the New Jersey Cable Television Association, January 1995.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," February 1994.

"A Note on Facilitating Local Exchange Competition," prepared for E.P.G., November 1991.

"Testing for Effective Competition in the Local Exchange," prepared for the E.P.G., October 1991.

"A Public Good/Private Good Framework for Identifying Pots Objectives for the Public Switched Network" prepared for the National Regulatory Research Institute, October 1991.

"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990.

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990.

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990.

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, Virginia, December 1988.

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society at MIT, July 1988.

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988.

"Impact of Interstate Switched Access Charges on Information Service Providers - Analysis of Initial Comments," submitted in FCC CC Docket No. 87-215, October 26, 1987.

"An Economic Analysis of the Impact of Interstate Switched Access Charge Treatment on Information Service Providers," submitted in FCC CC Docket No. 87-215, September 24, 1987.

"Regulation and Technological Change: Assessment of the Nature and Extent of Competition From A Natural Industry Structure Perspective and Implications for Regulatory Policy Options," prepared for the State of New York in collaboration with the City of New York, February 1987.

"BOC Market Power and MFJ Restrictions: A Critical Analysis of the 'Competitive Market' Assumption," submitted to the Department of Justice, July 1986.

"Long-Run Regulation of AT&T: A Key Element of a Competitive Telecommunications Policy," *Telematics*, August 1984.

"Economic and Policy Considerations Supporting Continued Regulation of AT&T," submitted in FCC CC Docket No. 83-1147, June 1984.

Record of Prior Testimony

2005

Before the United States District Court for the Eastern District of New York, *Coastal Communication Service, Inc. and Telebeam Telecommunications Corporation, Plaintiffs - against –The City of New York and New York City Department of Information Technology and Telecommunications*, 02 Civ. 2300 (RJD) (SMG), Expert Report, filed February 4, 2005; Rebuttal Expert Report, filed August 29, 2005, Deposition December 1, 2005.

2004

In the Matter of the Ontario Energy Board Act 1998, S.O.1998, c.15, (Schedule B); and *In the Matter of an Application pursuant to section 74 of the Ontario Energy Board Act*, 1998 by the Canadian Cable Television Association for an Order or Orders to amend the licenses of electricity distributors, RP-2003-024, Reply Evidence, filed September 27, 2004 (jointly with Paul Glist), Cross-examination October 26-27, 2004.

2003

Before the **United States District Court for the Southern District of California,** *Level 3 Communications, LLC v. City of Santee,* Civil Action No. 02-CV-1193, Rebuttal Expert Report, filed July 18, 2003.

2002

Before the **New York State Public Service Commission**, *In the Matter of the Cable Television & Telecommunications Association of New York, Inc., Petitioner, v. Verizon New York, Inc., Respondent*, Affidavit filed December 19, 2002.

Before the **West Virginia Public Service Commission**, Community Antenna Service, Inc. v. Charter Communications, Case No. 01-0646-CTV-C, Live Direct Testimony and Cross-examination, June 12, 2002.

Before the **Public Service Commission of the District of Columbia,** Comcast Cablevision of the District, L.L.C., Complainant, v. Verizon Communications Inc. – Washington, D.C., Respondent, Formal Case No. 1006, Direct Testimony filed June 11, 2002; Rebuttal Testimony filed June 24, 2002.

Before the **Federal Communications Commission,** in *Cavalier Telephone, LLC, Complainant, v. Virginia Electric & Power Co., D/b/a Dominion Virginia Power, Respondent*, Case No. EB-02-MD-005, Declaration filed May 21, 2002.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: Petition of Centennial Puerto Rico License Corp. for arbitration pursuant to Sections 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Puerto Rico Telephone Company*, on behalf of Centennial Puerto Rico License Corp., Direct Testimony filed April 16, 2002; Deposition May 7, 2002, May 14, 2002; Reply Testimony filed May 20, 2002, Cross-examination May 22, 2002.

Before the **Federal Energy Regulatory Commission**, *in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation***, Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, Cross-answering Testimony filed January 23, 2002; Rebuttal Testimony filed May 31, 2002, Cross-examination July 31, 2002.

2001

Before the **United States District Court for the Northern District of New York**, *TC Systems, Inc. and Teleport Communications-New York vs. Town of Colonie, New York,* Civil Action No. 00-CV-1972, Expert Report, filed November 16, 2001; Rebuttal Expert Report, filed December 20, 2001.

Before the **Federal Energy Regulatory Commission***, in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation****,* Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, filed November 15, 2001.

Before the **Public Service Commission of the District of Columbia,** Comcast Cable Communications, Inc. d/b/a/Comcast Cable of Washington, D.C., Complainant, v. Verizon Communications Inc. – Washington, D.C., Respondent, filed September 21, 2001.

Before the **Public Utility Commission of Texas**, State Office of Administrative Hearings, SOAH Docket No. 473-00-1014, PUC Docket No. 22349, *Application of Texas-New Mexico Power Company for Approval of Unbundled Cost of Service Rate Pursuant to PURA § 39.201and Public Utility Commission Substantive Rule §25.344*, on behalf of Cities Served by Texas-New Mexico Power, filed January 25, 2001.

2000

Before the **Puerto Rico Telecommunications Regulatory Board**, in *AT&T of Puerto Rico, Inc. et al v. Puerto Rico Telephone Company, Inc.,Re: Dialing Parity,* Docket Nos. 97-Q-0008, 98-Q-0002*,* on behalf of Lambda Communications Inc., cross-examination October 19-20, 2000.

Before the **Department of Telecommunications and Energy of the Commonwealth of Massachusetts**, Docket No. DTE 98-57 – Phase III, *Re: Bell Atlantic- Massachusetts Tariff No. 17 Digital Subscriber Line Compliance Filing and Line Sharing Filing*, (Panel Testimony with Joseph Riolo, Robert Williams, and Michael Clancy) on behalf of Rhythms Links Inc. and Covad Communications Company, filed July 10, 2000.

Before the **New York State Public Service Commission** in *Re: Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements* on behalf of the Cable Television & Telecommunications Association of New York, Inc., Direct Testimony filed June 26, 2000, Supplemental Testimony filed November 29, 2000.

Before the **Maryland Public Service Commission**, on behalf of Rhythms Links Inc. and Covad Communications Company, filed jointly with Terry L. Murray and Richard Cabe, May 5, 2000.

Before the **Public Utility Commission of Texas**, in *Re: Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996,* CC Docket No. 21982, on behalf of AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications Houston, Inc., filed March 31, 2000.

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1999

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1998

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1997

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1996

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1995

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1994

Before the **Federal Communications Commission**, in *Re: NET□□ Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed December 22, 1994 (Reply to Supp. Responses).

Before the **State Corporation Commission of the State of Kansas**, in *Re: General Investigation into Competition*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas CATV Association, filed November 14, 1994, cross-examination December 1, 1994.

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Before the **Federal Communication Commission**, in *Re: US WEST□□ Section 214 Application to provide Video Dialtone in Portland, OR; Minneapolis, St. Paul, MN; and Denver, CO*, W-P-C 6919-22, on behalf of Minnesota & Oregon Cable TV Association, filed March 28, 1994.

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1993

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Before the **Federal Communications Commission**, in *Re: NJ Bell□□ Section 214 Application to provide Video Dialtone service within Dover Township, and Ocean County, New Jersey*, W-P-C-6840, on behalf of New Jersey Cable TV Association, filed January 21, 1993.

1992

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Before the **New Hampshire Public Utilities Commission**, in *Re: Generic competition docket*, DR 90-002, on behalf of Office of the Consumer Advocate, filed May 1, 1992, reply July 10, 1992, Surrebuttal August 21, 1992.

Before the **New Jersey General assembly Transportation, Telecommunications, and Technology Committee**, *Concerning A-5063*, on behalf of NJ Cable TV Association, filed January 6, 1992.

1991

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Before the **Tennessee Public Service Commission**, in *Re: Master Plan Development and TN Regulatory Reform Plan*, on behalf of TN Cable TV Association, filed February 20, 1991.

1990

Before the **Tennessee Public Service Commission**, in *Re: Earnings Investigation of South Central Bell,* 90-05953, on behalf of the TN Cable Television Association, filed September 28, 1990.

Before the **New York Public Service Commission**, in *Re: NYT Rates, 90-C-0191, on behalf of User Parties NY Clearing House Association*, filed July 13, 1990, Surrebuttal July 30, 1990.

Before the **Louisiana Public Service Commission,** in *Re: South Central Bell Bidirectional Usage Rate Service*, U-18656, on behalf of Answerphone of New Orleans, Inc., Executive Services, Inc., King Telephone Answering Service, et al, filed January 11, 1990.

1989

Before the **Georgia Public Service Commission**, in *Re: Southern Bell Tariff Revision and Bidirectional Usage Rate Service*, 3896-U, on behalf of Atlanta Journal Const./Voice Information Services Company, Inc., GA Association of Telemessaging Services, Prodigy Services, Company, Telnet Communications, Corp., filed November 28, 1989.

Before the **New York State Public Service Commission**, in *Re: NYT Co. - Rate Moratorium Extension - Fifth Stage Filing*, 28961 Fifth Stage, on behalf of User Parties NY Clearing House Association Committee of Corporate Telecommunication Users, filed October 16, 1989.

Before the **Delaware Public Service Commission**, in *Re: Diamond State Telephone Co. Rate Case*, 86-20, on behalf of DE PSC, filed June 16, 1989.

Before the **Arizona Corporation Committee**, in *Re: General Rate Case*, 86-20, on behalf of Arizona Corporation Committee, filed March 6, 1989.

1988

Before **New York State Public Service Commission**, in *Re: NYT Rate Moratorium Extension*, 28961, on behalf of Capital Cities/ ABC, Inc., AMEX Co., CBS, Inc., NBC, Inc., filed December 23, 1988.

1989

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Before the **Minnesota Public Utilities Commission**, in *Re: Northwestern Bell*, P-421/ M-86-508, on behalf of MN Bus. Utilities Users Counsel, filed February 10, 1987, cross-examination March 5, 1987.

1986

Before the **Kansas Public Utilities Commission**, in *Re: Southwestern Bell*, 127, 140-U, on behalf of Boeing Military, et al., filed August 15, 1986.

1985

Before the **Washington Utilities and Transportation Commission**, in *Re: Cost of Service Issues bearing on the Regulation of Telecommunications Company*, on behalf of US Department of Energy, filed November 18, 1985 (Reply Comments).

1984

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 83-213, on behalf of Staff, ME PUC, filed February 7, 1984, cross-examination March 16, 1984.

Before the **Minnesota Public Service Commission**, in *Re: South Central Bell*, U-4415, on behalf of MS PSC, filed January 24, 1984, cross-examination February 1984.

1983

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8847, on behalf of KY PSC, filed November 28, 1983, cross-examination December 1983.

Before the **Florida Public Service Commission**, in *Re: Southern Bell Rate Case*, 820294-TP, on behalf of Florida Department of General Services, FL Ad Hoc Telecommunications Users, filed March 21, 1983, cross-examination May 5, 1983.

1982

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 82-142, on behalf of Staff, ME PUC, filed November 15, 1982, cross-examination December 9, 1982.

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8467, on behalf of the Commonwealth of Kentucky, cross-examination August 26, 1982.

Attachment 2

List of Documents Reviewed in Preparation of Summary Report of Patricia D. Kravtin

Deposition Transcripts

Terry Davis, November 18, 2005 (including Accompanying Exhibits)
Michael Dunn, November 16, 2005
Thomas Forbes, November 17, 2005
Ben Bowen, September 14-15, 2005
Rex Brooks, September 16, 2005
David Tessieri, February 23, 2006

Other Transcripts

Status Conference Pursuant to Order FCC 05M-54

Case Filings

Gulf Power

Gulf Power's Fifty Pole Identification, January 20, 2006, and Supplemental Filing, February 10, 2006.
Gulf Power Non-Binding Proffer of "Full Capacity" Pole Evidence, October 17, 2005
Gulf Power Response to Complainant's Motion to Dismiss, August 29, 2005
Gulf Power's Motion to Reconsider Limited Portions of Second Discovery Order
Gulf Power Final Report on Pole Survey
Gulf Power July Status Report
Gulf Power's Preliminary Report on Pole Survey
Gulf Power's Response to Complainants' Second Set of Request for Production of Documents
Gulf Power's Supplemental and Second Supplemental Responses to Complainant's First Set of Interrogatories and Request for Production of Documents
Gulf Power Preliminary Statement of Alternative Cost Methodology, December 3, 2004
Gulf Power's Itemization of Evidence, August 31, 2005
Gulf Power's Description of Evidence, January 8, 2004
Gulf Power's Petition for Reconsideration and Request for Evidentiary Hearing, June 23, 2003
Various Other Filings

FCTA

Complainants' Responses to Gulf Power's Second Set of Interrogatories and Requests for Production of Documents
Complainants' Identification of Utility Poles
Complainants' Third Motion to Compel Production of Documents, Further Responses to Interrogatories
Complainant and Respondent's Joint Status Report, January 14, 2005
Complainants' Third Motion To Compel Production Of Documents, Further Responses To Interrogatories As To Which The Presiding Judge Twice Previously Required Supplemental Responses Or, In The Alternative, For Evidentiary Rulings Or Dismissal, October 7, 2005
Complainants' Opposition To Gulf Power Company's Motion To Reconsider ,October 6, 2005
Complainants' Reply To Gulf Power's Response To Complainants' Third Motion To Compel, .November 10, 2005
Complainants' Reply To Gulf Power's Response To Complainants' Motion To Dismiss, September 6, 2005
Complainants Response To Description Of Evidence Gulf Power Seeks To Present In Satisfaction Of The Eleventh Circuit's Test, February 6, 2004
Complainants' Motion To Dismiss and Complainants Reply To Gulf Power's Response, dated July , 2005, and September 6,2005, respectively.
Complainants' Proposed Agenda Items for the January 31, 2005 Prehearing Conference, January 25, 2005
Complaint dated July 10, 2000
Various Other Filings

Joint
Joint Status Report on Document Production and Exchange, January 14, 2005
Various Other Filings

Orders
FCC Instant Proceeding
Memorandum Opinion and Order, October 12, 2005
Scheduling Order December 14, 2005
Second Discovery Order, September 22, 2005
Status Order April 15, 2005
Order dated November 21,2005
Hearing Designation Order September 24, 2004
Various Other Procedural Orders

Other FCC
Report and Order, CS Docket 97-98, FCC 00-116, April 3, 2000, and Consolidated Partial Order on Reconsideration, May 25, 2001, FCC 01-170.
Alabama Cable Television Association v. Alabama Power Company,16 FCC Rcd (2001)

State PSC
Public Service Commission of Florida, Docket No. 0500 93-El, Order No. PSC 05-0250, PAA-El, March 4, 2005

Court Decisions
Eleventh Circuit Alabama Power Company v. FCC , November 14, 2002
Eleventh Circuit Georgia Power v. Teleport *et al*, September 29, 2003
Eleventh Circuit Southern Company v. FCC, June 13, 2002
Eleventh Circuit, Gulf Power v. US, September 9, 1999

Laws and Regulations
47 USCS @ 224
47 C.F.R. 1.1400-1.1418

Other
Petition of the US Telecom Association for a Ratemaking to Amend Pole Attachment Rate Regulation and Complaint Procedures, October 11, 2005.
BellSouth Corporation Comments in Support of USTelecom Petition for Rulemaking, RM No. 11293, December 2, 2005

Economic Literature
Musgrave and Musgrave, *Public Finance in Theory and Practice*, McGraw Hill (1976).
Lester C.Thurow, The Zero Sum Society, Basic Books, Inc., Publishers (New York, 1980).
Gustavo Nombela, Gines de Rus, and Ofelia Betancor, Competitive and Sustainable Growth Programme and Marginal Cost for Transport Efficiency, UNITE (Unification of accounts) WP7: User Costs and Benefits, Case Study 7: Evaluation of Congestion Costs for Madrid Airport (1997-2000), April 2002.

Data and Calculations
Excerpts FERC Form 1's, 2000-2004
FCC Cable Formula Rate Calculations, 2000-2004

Attachment 3

FCC Cable Rate Formula Calculations Based On Data For 2000-2004

STATE OF NEW JERSEY
OFFICE OF ADMINISTRATIVE LAW

I/M/O the Verified Petition of TCG Delaware Valley, Inc. and Teleport Communications New York for an Order Requiring PSE&G Co. to Comply with the Board's Conduit Rental Regulations	OAL Docket PUC 1191-06 BPU Docket No. EO0511005

TESTIMONY OF PATRICIA KRAVTIN

ON BEHALF OF

TCG DELAWARE VALLEY, INC. AND TELEPORT COMMUNICATIONS NEW YORK

SEPTEMBER 29, 2006

Table of Contents

INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Patricia D. Kravtin. I am an economist in private practice specializing in the analysis of telecommunications and energy regulation and markets. My business address is 57 Phillips Avenue, Swampscott, Massachusetts.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. I received a B.A. with Distinction in Economics from the George Washington University. I studied in the Ph.D. program in Economics under a National Science Foundation Fellowship at the Massachusetts Institute of Technology (M.I.T.). My fields of concentration at M.I.T. were government regulation of industry, industrial organization, and urban and regional economics. My professional background includes a wide range of consulting experiences in regulated industries. Between 1982 and 2000, I was a consultant at the national economic research and consulting firm of Economics and Technology, Inc. (ETI) in that firm's regulatory consulting group, where I held positions of increasing responsibility, including Senior Vice President/Senior Economist. Upon leaving ETI in September 2000, I began my own consulting practice specializing in telecommunications, cable, and energy regulation and markets.

I have testified or served as an expert witness on telecommunications matters in proceedings before over thirty state, provincial, and federal regulatory commissions, including the Federal Communications Commission ("FCC" or "Commission"), the Federal Energy Regulatory Commission ("FERC"), and the Canadian Radio-television and Telecommunications Commission ("CRTC"). In addition, I have testified as an expert witness in antitrust litigation

before a number of United States district courts on matters relating to telecommunications competition, market power, and barriers to entry, and in regard to Section 253 of the Telecommunications Act of 1996 ("the Act") concerning use of public rights-of-way. I have also testified before a number of state legislative committees and served as advisor to a number of state regulatory agencies.

Q. COULD YOU BRIEFLY DESCRIBE YOUR EXPERIENCE OF PARTICULAR RELEVANCE TO THIS PROCEEDING?

A. Yes. I have testified as an expert concerning access to poles, ducts, conduits, and rights-of-way pole before state, provincial, and federal agencies on numerous occasions. I submitted a declaration on pole attachment issues on behalf the National Cable Television Association in the Federal Communications Commission's ("FCC") pole attachment proceeding, CS Docket No. 97-98. I also submitted testimony before the FCC in pole attachment complaint proceedings brought against electric utilities Gulf Power and Dominion Virginia Power. I also testified on pole attachment rates pertaining to electric utilities in Canada before the Ontario Energy Board.

At the state level, I have testified on matters pertaining to access to poles and conduit of incumbent local exchange carriers ("ILECs") in proceedings before the Georgia Public Service Commission, the South Carolina Public Service Commission, the Public Service Commission of the District of Columbia, and the New York Public Service Commission.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE BPU AND OTHER AUTHORITIES IN THE STATE OF NEW JERSEY?

A. Yes, I testified before the BPU in connection with two major telecommunications proceedings, the Local Exchange Competition proceeding, Docket No. TX95120631, and the NJ

Bell Alternative Regulation proceeding, Docket No. T092030358. I also testified before the New Jersey General Assembly Transportation, Telecommunications, and Technology Committee, concerning A-5063, and before the New Jersey Senate Transportation and Public Utilities Committee, concerning Senate Bill S-3617.

Q. HAVE YOU PREPARED A DETAILED SUMMARY OF YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A. Yes. A detailed resume summarizing my training, previous experience, and prior testimony and reports is provided as Attachment 1 to this testimony.

Q. WHAT HAVE YOU RELIED UPON IN PREPARING THIS TESTIMONY?

A. I have relied on my education, training, research, and experience in economic analysis, and my prior experience in the areas of telecommunications and utility regulation as outlined above and further detailed in Attachment 1. I have considered various data and information in forming my opinions, including data available on the Federal Energy Regulatory Commission ("FERC") Form 1 for PSE&G, and materials produced in the discovery taken in this matter.

Q. PLEASE DESCRIBE YOUR ASSIGNMENT AND THE PURPOSE OF YOUR TESTIMONY.

A. I was asked by counsel for TCG Delaware Valley, Inc. and Teleport Communications New York (collectively "AT&T") to provide testimony in support of their petition for recalculation of the conduit rental rates currently charged by PSE&G to be consistent with the BPU's conduit rate rental formula. My testimony will address the economic and policy rationales for relying upon the BPU rate formula (which mirrors the well-established Federal Communications Commission ("FCC") formula), rather than continuing to rely on an unregulated rate "negotiated" under conditions of asymmetric bargaining power. In addition, my

testimony will provide specific results derived from proper application of the BPU formula to PSE&G for purposes of determining an appropriate rental rate for AT&T's present occupancy of PSE&G conduit space.

SUMMARY OF TESTIMONY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony establishes the various economics and policy rationales for relying upon the BPU rate formula as the basis of recalculating conduit rental rates that AT&T currently pays PSE&G. These rationales are inherently based on the knowledge and application of established theoretical economic concepts of market structure, and the ability of a dominant firm to exploit its market power by charging inefficiently high monopolistic rates. However, while the rationales presented in this testimony in support of the recalculation of PSE&G's conduit rental rates based on the BPU formula have a sound theoretical basis, they are also well grounded in practical market realities. Among these are:

- PSE&G maintains ownership and control of an expansive conduit network built up over the years as an incumbent utility, whereas competitive telecommunications companies such as AT&T do not have preexisting networks of their own and face a limited range of realistic choices with regard to renting and/or providing their own conduit space.

- By virtue of PSE&G's ability to exploit ownership and control of the poles and conduit, current conduit rental rates charged AT&T were "negotiated" under conditions of vastly asymmetric bargaining power; the antithesis of a fair, arms-length negotiation between impartial buyers and sellers.

- Because AT&T and other third parties negotiating pole or conduit rental fees do not enjoy anything remotely close to an equal bargaining position with PSE&G or an active, effectively competitive market for conduit space, rates "agreed to" under such conditions (and prior to the BPU's adoption of the FCC formula rate methodology) cannot be considered free, nondiscriminatory, or fair market rates.

- The reality is one where entrants, with minimal bargaining clout, have had little practical choice but to generally accept the rate offered by the utility, typically on a "take it or leave it" basis, in order to gain access to a bottleneck facility needed to roll out their business plans, even if that rate is unsustainable in the long run, with the hope of petitioning regulatory authorities for relief at some subsequent time.

- This testimony presents specific evidence that the $6.44 per foot rate PSE&G is currently charging AT&T for conduit space is characteristic of a monopolistic rate level. The first indicator is the relationship between the current rental rate and the associated cost. Data presented in this testimony show PSE&G's current rate exceeds the cost-based formula rate - a reasonable proxy for cost - by as much as *fifteen* times.

- This testimony also presents a calculation of the Lerner Index, a well-known measure from the economics literature of a dominant firm's market power and its ability to charge a monopolistic rate. The Lerner Index is also based on the price/ cost relationship, and has values ranging between zero (in a perfectly competitive market) and one (under monopolistic conditions). Based upon the current conduit rental rates PSE&G charges AT&T and the BPU

formula rate (which by design must equal or exceed marginal cost), the calculated Lerner Index is in the vicinity of 0.9, approaching the theoretical maximum of a monopoly.

- Another piece of evidence described in this testimony is PSE&G's ability to price discriminate, as demonstrated by PSE&G's ability to charge AT&T as much as 70% more than another third party renter for what is essentially a homogenous product.

- To the extent there were viable competitive alternatives available to AT&T, PSE&G would not be in the position it is to charge AT&T such an exorbitantly high price relative to cost, and relative to rates charged other renters. Rather, PSE&G would be subject to the pricing disciplines of a competitive market, which would bid prices down toward cost and toward uniformity.

- The very reason why the rates, terms and conditions of pole and conduit attachments came to be regulated in the first instance is due to their bottleneck monopoly status and the fact that these are essential facilities.

- The fundamental premise underlying the development of the FCC's formula rate methodology, upon which the BPU formula rate is based, is that unless the utility is subject to regulatory pricing standards based on well-established economic cost allocation principles, it will be able to exploit its monopoly power and charge excessively high, economically inefficient rates. Those same conditions of monopoly power that motivated the adoption of the FCC formulaic approach for third party use of utility pole and conduit systems exist in

connection with AT&T's rental of conduit space from PSE&G, and hence support the application of the BPU formula in the instant situation.

- In the new competitive environment, where telecommunications companies are competing directly against not only other telecommunications companies, but electric utilities and/or their subsidiaries, the well-established pro-competitive benefits of relying upon the regulated rate formula take on even greater importance.

- Recalculating PSE&G's existing conduit rental rates to comply with the BPU formula would serve multiple desirable economic and public policy objectives: consistency with the Board's decision to adopt the FCC formula; correction of an inefficient and inequitable outcome reached through an unbalanced negotiation process; development of a rate that effectively and efficiently balances the interests of the electric utility and telecommunications companies; and help to bring about the benefits of a competitive telecommunications market.

- The FCC formula has withstood the test of time as a straightforward, economically appropriate approach for determining just and reasonable pole attachment rates and conduit rentals, in which the recovery of the cost of the pole or conduit attachment is based upon the concept of cost causation (i.e., cost-causer pays). Such costs reflect expenses directly attributable to an attacher's use or occupancy of the facility, including a normal (reasonable) return to capital, and by this design, prevent a situation of cross-subsidy between the utility conduit owner and the third-party attacher.

- The recovery of a fully allocated embedded cost, including a return on utility capital, in the annual BPU formula rental rate, in addition to make-ready type charges that may be applied by the utility for direct reimbursement of non-recurring out-of-pocket expenses, more than compensates PSE&G for any costs economically caused by, or incurred in connection with third party occupancy of PSE&G conduit space.

- Using the BPU formula, my testimony provides calculations of a maximum allowable rental rate that I recommend be applied to all conduit space AT&T is currently renting from PSE&G. The calculations presented in my testimony are based on data publicly reported in the FERC Form 1 reporting system for the year 2003. According to my calculations, PSE&G should be allowed to charge AT&T a maximum rate of **$0.42** per foot of conduit space occupied.

- While the $0.42 rate I have calculated using the BPU formula is significantly lower than the various rates currently being charged by PSE&G, its magnitude is consistent with other regulated conduit rental rates with which I am familiar. The rate is also consistent with the expectations of a "low" marginal cost for third party pole and conduit attachment rates as expressed by Congress and the FCC. By contrast, the current rates being charged by PSE&G reflect a monopoly rate level. Indeed, there are reasons based on information provided by PSE&G in discovery to believe that even the $0.42 rate may be overstated.

PSE&G'S CURRENT CONDUIT RENTAL RATES FOR AT&T DO NOT REFLECT A FREE MARKET RESULT OR A PROCESS OF FAIR NEGOTIATIONS, BUT RATHER THE ABILITY OF PSE&G TO IMPOSE AN EXCESSIVELY HIGH MONOPOLISTIC RATE FOR ACCESS TO AN ESSENTIAL FACILITY.

Q. PSE&G ARGUES THAT THE BPU FORMULA IS NOT APPLICABLE TO EXISTING CONDUIT RENTAL RATES IT CHARGES AT&T, BECAUSE THOSE RATES WERE ESTABLISHED UNDER "NEGOTIATED, NON-DISCRIMINATORY" CONTRACTS. DO YOU AGREE?

A. No, I do not. PSE&G's argument is dependent on the existence of an established, active market for conduit space in which users of conduit, such as AT&T, have realistic choices with regard to renting and/or providing their own conduit space. The market assumption inherent in PSE&G's argument is not valid.

As will be discussed further below, PSE&G possesses considerable monopoly power relative to pole and conduit attachments, which it is able to exploit in the rates it charges third party attachers such as AT&T. Like other utilities, PSE&G's dominance of pole and conduit facilities arose as a result of public policies whose goal was to establish widespread availability of electric and telephone service, along with the growth and stability of the industries themselves. AT&T and other telecommunications carriers, like cable operators before them, have not had similar opportunities to construct their own structures or to join together to share a common facility similar to incumbent telephone and electric utilities in the past. In many instances, cable operators and telecommunications companies such as AT&T, have little or no choice but to rent existing utility conduit. Where cable operators or telecommunications companies occupy space in PSE&G's conduits, they typically have no practical or cost-effective alternative to the use of those facilities.

Zoning, environmental, municipal ordinance, financial, and other constraints make it impractical for third parties to construct new conduit systems on a scale or scope anything close to that owned and controlled by the incumbent utility.[1] In any given area, there is typically one provider of conduit space with surplus space in those conduits, as the cost of constructing a stand alone conduit system throughout the entire service area would be prohibitively expensive. There is no other regulated or unregulated entity that leases conduit in sufficient quantity and/or ubiquity so as to provide the cable operator or telecommunications company with a viable market-based alternative to the leasing of conduit from the existing utility.

Even as regards a more limited overbuild, third parties tend to face numerous impediments, including resistance from local governmental authorities in authorizing unnecessary and/or disruptive street cuts. Even if local permits would be granted, the social, aesthetic, and other costs of constructing duplicative conduit have long served to effectively require cable operators and telecommunications companies to follow the paths of existing utilities.

That poles and conduits are "essential facilities" capable of serving as bottlenecks to facilities-based competition is well recognized by the FCC, state and local regulatory bodies, and the courts. This reality has been a major factor in rulings by these bodies as to the continued appropriateness of applying a regulatory rate formula based on embedded costs to the rental of utility pole and conduit space to third parties.[2] Fundamentally, it was the lack of viable market-

[1] See, e.g., *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001),at ¶57.

[2] See, e.g., See *NCTA v. Gulf Power*, 534 US 327, 151 L.Ed 2d 794, 801 (2002): "Since the inception of cable television, cable companies have sought the means to run a wire into the home of each subscriber. They have found it convenient, and often essential, to lease space for their cables on telephone and electric utility poles. Utilities, in turn, have found it convenient to

based alternatives for pole and conduit space that led Congress in adopting the Telecommunications Act of 1996 ("the Act") to extend protections previously afforded cable operators under Section 224 of the Communications Act to new telecommunications providers, and also to require utilities to provide nondiscriminatory access to these essential pole and conduit facilities.[3] As the legislative history and language in the Act suggests,[4] in expanding the FCC's jurisdiction over poles and conduit to telecommunications service providers, Congress wanted these entities, like the cable television companies before them, to be able to attach to the utilities' bottleneck facilities without having to pay monopoly rents.

Q. WHAT IS THE IMPACT OF THE WIDELY-RECOGNIZED STRUCTURAL MARKET CONDITIONS FOR UTILITY POLE AND CONDUIT SPACE ON THE RELATIVE BARGAINING POWER OF THIRD PARTIES SUCH AS AT&T VIS-À-VIS THE UTILITY IN NEGOTIATING A RENTAL RATE?

A. By virtue of PSE&G's ability to exploit its ownership and control of the poles and conduit, AT&T and other third parties negotiating pole or conduit rental fees do not enjoy anything remotely close to an equal bargaining position in negotiations regarding facility rental rates. Competitive telecommunications companies such as AT&T are mere lessees and lack basic rights of ownership, planning, and control. The hypothesis that there exists an equal, or anything close to an arms' length negotiating position between PSE&G, as owner of the conduit, and AT&T, as a competitive telecommunications carrier with few if any practically viable alternatives to leasing conduit space other than from PSE&G, is simply not credible in light of the practical realities of PSE&G's conduit ownership and control.

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charge monopoly rents." This point was also explicitly recognized by the Eleventh Circuit Court in its *Alabama Power Company* decision: "As the owner of these 'essential facilities,' the power companies had superior bargaining power, which spurred Congress to intervene in 1978." *Alabama Power*, 311 F.3d at 1362.

Interestingly, incumbent local exchange carriers (ILECs) have recently spoken out publicly against the rapidly escalating rate demands they state they have experienced in connection with their negotiations with electric utilities for attachments. The United States Telecommunications Association, a trade association representing communications providers including ILECs, recently petitioned the FCC to require electric utilities to charge them no more than the regulated formula rate available to competitive telecommunications companies for attachments (including access to poles, ducts, conduit and rights-of-way), citing the "little bargaining clout" they possess relative to the electric utility when it comes to utilization of electric utility's pole plant..[5]

Q. DOESN'T THE INCUMBENT LOCAL EXCHANGE CARRIER IN NEW JERSEY, VERIZON, ITSELF LEASE CONDUIT SPACE TO THIRD PARTIES INCLUDING AT&T?

A Yes, but unlike PSE&G, Verizon voluntarily agreed to recalculate rates it charged AT&T prior to the BPU's adoption of the FCC formula in 2003 to be compliant with the BPU formula. It is my understanding that Verizon now charges AT&T $0.37 per foot for all conduit space it rents to AT&T in New Jersey.[6]

Q. FROM AN ECONOMIC PERSPECTIVE, DOES IT MAKE SENSE TO SPEAK IN TERMS OF A FREE OR FAIR MARKET RATE WHERE ONE PARTY HAS SIGNIFICANTLY MORE BARGAINING LEVERAGE RELATIVE TO THE OTHER?

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[3]See *47* USCS § 224 .
[4]See 47 U.S.C. § 224(f).
[5] See *In the Matter of the Petition of the United States Telecommunications Association for a Rulemaking to Amend Pole Attachment Rate Regulation and Complaint Procedures*, Petition for Rulemaking before the Federal Communications Commission, FCC RM No. 11293, October 11, 2005.
[6] See Testimony of Anthony Fea at 5.

A. No, it does not. Market rates can serve as proxies to costs only when conditions of effective competition exist.[7] Where such conditions exist, no one seller can influence the market price of the good or service or the terms under which the product is sold, and market forces can be relied on to bring the price of the good or service down to levels approximating marginal costs. Where competitive market conditions do not exist (as is the case with pole and conduit space leased from electric utilities), there will be no such competitive pressures to constrain prices charged by the seller. Under such conditions, the "free market" rate degenerates into an unregulated monopoly rate and will tend to incorporate supra-normal monopoly profit for the seller.

Thus, the claim that third party entities have "freely negotiated" with the utility makes no economic sense given the utility's dominant position in the market for pole and conduit space. Neither does such a claim make sense in terms of common market appraisal definitions of a fair market, which regardless of the context, contain language to the effect that neither party is under any compulsion, undue pressure, or desperation to transact.

As found by the FCC in its *Alabama Power Company* opinion:

> Despite Respondent's and other utilities' arguments to the contrary, there is no non-monopoly market in pole attachments. There are no arm's length transactions reflecting the prices paid by willing buyers and sellers for comparable pole attachments.[8]

[7] Competitive market conditions would include numerous buyers and sellers, no one of which is large enough to influence the price by varying the quantity of output it sells. See F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Third Edition (Boston: 1990), at 16.

[8] *Id.*, at ¶55.

Q. HOW DO YOU ADDRESS THE FACT THAT AT&T AND OTHERS PREVIOUSLY AGREED TO PAY PSE&G RATES HIGHER THAN THOSE DERIVED USING THE BPU FORMULA?

A. For the same basic economic reasoning described above, that AT&T and others agreed to pay the incumbent utility rates higher than the regulated formula rate in contracts signed *prior to the BPU's adoption of the FCC formula,* does not make the previously-agreed upon rate a nondiscriminatory or fair market rate.

Historically, in the telecommunications industry, the conditions for effective competition have not developed on a uniform basis. Nascent competitors have been in positions where they were require access to essential facilities controlled by incumbent utilities. By practical necessity, these firms, early in their life cycles or early stages of their business plans, have accepted high rates for access to essential facilities, even though those rates may not be sustainable in the long run, in order to gain entry and establish a foothold in a market. The reality is one where entrants, with minimal bargaining clout, have had little practical choice but to generally accept the rate offered by the utility, typically on a "take it or leave it" basis, in order to gain access to a bottleneck facility needed to roll out their business plans.

A common pattern for new entrants, assuming they survive the early stages of their life cycle as a competitor, has been to seek relief from excessive monopoly rates from the appropriate legal or regulatory authority, after they have become established in the market place. Given these real-world conditions facing firms entering the telecommunications industry, it would be incorrect to view transactions between new entrants and electric utilities, as representative free market benchmarks.

Q. CAN YOU PROVIDE SPECIFIC EVIDENCE THAT THE RATE PSE&G IS CURRENTLY CHARGING AT&T FOR CONDUIT SPACE IS CHARACTERISTIC OF A MONOPOLISTIC RATE LEVEL?

A. Yes. The classic economic definition of market power is the ability to control price, and in particular to set price above marginal cost. As shown in Table 1 below, PSE&G has been able to charge a conduit rental rate of approximately *fifteen* times the cost-based regulated rate, which provides a reasonable proxy for cost. This observed relationship between price and cost ratio provides direct evidence of the lack of viable conduit rental alternatives available to AT&T and of PSE&G's continuing market power and unearned bargaining leverage with respect to this essential facility.

Table 1
(Based on 2003 Data)

	$/ Conduit Foot	**Price/Cost**	**Lerner Index = (Price-Cost)/Price**
Price charged AT&T: PSE&G Rental Rate[9]	$6.44		
PSE&G Cost: BPU Formula Rate per Attachment 2	$0.42	15.33	0.93

More formally, one can calculate the Lerner Index, a well-known measure of market power referred to in the economic literature and defined as the ratio of price minus marginal cost over price.[1] Under conditions approaching pure competition, price will be bid down to marginal cost, and the value of the Lerner Index will approach zero. The more a firm's pricing deviates from the competitive norm, the higher the associated Lerner Index, approaching a theoretical maximum of one. A rough approximation of the Lerner Index can be performed here based

[9] See PSE&G Response to AT&T-8 which identifies a range of rates AT&T pays to PSE&G. The $6.44 used in this table and for calculation purposes is the modal rate. See Testimony of Anthony Fea at 5.

upon the current conduit rental rates PSE&G charges AT&T and the BPU formula rate (which by design must equal or exceed marginal cost). As shown in Table 1 above, the result of that calculation is yields a Lerner Index in the vicinity of 0.9 (using either calculation of the formula rate as proxy for cost), which is near the theoretical maximum of a monopoly condition. This analysis provides empirical validation of the qualitative analysis that PSE&G maintains substantial monopoly control over conduit space.

To the extent there were viable competitive alternatives available to AT&T, PSE&G would not be in the position it is to charge such an exorbitantly high price relative to cost. Rather, PSE&G would be subject to the pricing disciplines of a competitive market, which would bid prices down toward cost. That PSE&G been able to charge AT&T a rate for conduit space roughly fifteen times the cost is clear evidence such conditions do not generally exist with respect to AT&T's rental of PSE&G's.

Q. IS THERE FURTHER EVIDENCE THAT THE RATE PSE&G "NEGOTIATED" WITH AT&T IS NOT REPRESENTATIVE OF A COMPETITIVE OR FAIR MARKET RATE?

A. Yes. The rate PSE&G "negotiated" with AT&T is approximately 75% higher than the lowest rate identified by PSE&G as applying to third party rental of conduit space (see Table 2 below). Again, to the extent there were viable competitive alternatives available to AT&T, PSE&G would not be in the position to price discriminate at this level, i.e., to be able to charge as much as 70% more for what is essentially a homogenous product. As a general economic proposition, price discrimination will not be profitable in a competitive market; market power is a necessary prerequisite for the practice of price discrimination and hence the latter is an

indicator of the former.[10] Moreover, the data below belie PSE&G's claim its contract with AT&T is nondiscriminatory.

Table 2
(Based on 2003 Data)

PSE&G Rental Rate to AT&T for Conduit Space	Lowest PSE&G Third Party Conduit Space Rental Rate per Resp to AT&T-18
$6.44 per duct foot	$3.81

FROM AN ECONOMIC AND POLICY PERSPECTIVE, GIVEN PSE&G'S ABILITY TO EXPLOIT ITS MARKET POWER, PSE&G SHOULD NOT BE ALLOWED TO CHARGE AT&T A CONDUIT RENTAL RATE IN EXCESS OF THE MAXIMUM ALLOWABLE RATE AS ESTABLISHED BY THE BPU FORMULA.

Q. WHAT IS THE CONNECTION BETWEEN PSE&G'S MARKET POWER AND ASYMMETRIC BARGAINING CLOUT VIS-À-VIS AT&T AS A THIRD PARTY RENTER OF CONDUIT SPACE AND THE USE OF THE BPU FORMULA TO RECALCULATE CONDUIT RENTAL RATES PAID BY AT&T?

A. The very reason why the rates, terms and conditions of pole and conduit attachments came to be regulated in the first instance is due to the bottleneck monopoly status of poles and conduit and the fact that these are essential facilities. The fundamental premise underlying the FCC's development and use of the formula rate upon which the BPU formula rate is based is that unless the utility is subject to regulatory pricing standards based on well-established economic cost allocation principles, the utility will be able to exploit its monopoly power resulting from its ownership and to charge excessively high, economically inefficient rates, as evidenced in the rate PSE&G currently charges AT&T.

[10]See Scherer and Ross, *op cit*, at 489.

The FCC Formula, upon which the BPU formula is based, has been used over the years for the express purpose of promoting reasonable, affordable, predictable and nondiscriminatory access to poles and conduit for cable television systems and more recently, telecommunications carriers. The same conditions of monopoly power that motivated the adoption of the FCC formulaic approach for third party use of utility pole and conduit systems exist in connection with AT&T's rental of conduit space from PSE&G. Accordingly, it is entirely appropriate, from an economic and policy perspective, to use the BPU formula to set the maximum rental rates PSE&G is allowed to charge AT&T and other third parties seeking similar nondiscriminatory access under the Telecommunications Act.

Q. IN ADDITION TO THE PRO-COMPETITIVE BENEFITS DESCRIBED ABOVE, IS THERE FURTHER RATIONALE IN THE POST-ACT PERIOD FOR REQUIRING PSE&G TO RECALCULATE CONDUIT RENTAL RATES BASED ON THE BPU FORMULA?

A. Yes. In the new competitive environment, where telecommunications companies are competing directly against not only other telecommunications companies, but electric utilities and/or their subsidiaries, the stakes involved have become even greater, and so too the pro-competitive benefits of relying upon the regulated rate formula. The pro-competitive aspects of the FCC formula are well established at both the state and federal level. The continued endorsement of the FCC's historic cost-based approach to pole and conduit rentals by Congress when it passed the Telecommunications Act in 1996,[11] and by the FCC, state regulatory agencies, and the courts in the post-Act period, has been made with full knowledge and consideration of the important changes occurring in the telecommunications industry including:

[11] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

the maturing of the cable market, the existence of non-incumbent telecommunications carriers, the emergence of the Internet, and the development of broadband technologies. [12]

Adjusting conduit rental rates PSE&G charges AT&T downward based on the maximum allowable BPU formula rate will prevent PSE&G from exploiting its monopoly power and charging discriminatory and inefficiently high rates. However, it would also serve the important state and federal policy goals of encouraging widespread competition clearly articulated in the post-Act period. By lowering the rates charged by electric utilities for conduit space, an essential input for telecommunications carriers, the recalculation of conduit rental rates to more reasonable levels would help to bring about the much desired benefits of competition to New Jersey consumers and the economy generally in the form of lower prices, increased choices, and new and innovative services.

In sum, the recalculation of PSE&G's existing conduit rental rates in accordance with the BPU formula would serve multiple desirable economic and public policy objectives. First, it would be consistent with the Board's decision to adopt the FCC formula. Second, it would correct an

[12] See *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, 15 FCC Rcd 6453, (2000) which *inter alia* rejected report commissioned by utilities which argued utilities' facilities are not essential, reaffirmed the historical cost-based pricing approach for pole and conduit, and established a conduit rental rate formula for cable operators; *see also In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, 16 FCC Rcd 12103, (2001) " … for two decades the Cable Formula has provided a stable and certain regulatory framework," and noting that " Congress has not expressed any intent for the Commission to deviate from the use of historical costs in the Cable Formula." See, also, e.g., *In the Matter of the Proceeding on Motion for the Commission to Consider Certain Pole Attachment Issues*, New York Pub. Serv. Comm'n. Case No. 95-C-0341, 1997 N.Y. PUC LEXIS 364 *11 (issued and effective June 17, 1997), *recon. denied*, 1997 N.Y. PUC LEXIS 639 (October 7, 1997), and *In the Matter of the Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case No. 98-C-1357, Order on Unbundled Network Elements (Issued and Effective January 28, 2002).

inefficient and inequitable outcome reached through an unbalanced negotiation process. Third, it would replace it with a rate that effectively and efficiently balances the interests of the electric utility and the telecommunications carrier. Fourth, doing all the above will promote the public policy goals of a competitive telecommunications market and help to bring about the benefits associated with achievement of those goals.

THE BPU FORMULA, BY PRECISELY TRACKING THE WELL-ESTABLISHED FCC FORMULA, IS A REASONABLE, ECONOMICALLY APPROPRIATE, COST-BASED APPROACH TO RESOLVING THE CURRENT CONDUIT RENTAL RATE DISPUTE BETWEEN PSE&G AND AT&T.

Q. PLEASE DESCRIBE THE GENERAL APPROACH OF THE BPU FORMULA.

A. The formula adopted by the BPU in 2003 for setting rates for utility pole and conduit attachments precisely tracks the formula established by the FCC for this purpose.[13] In adopting the FCC formula, the Board joined the overwhelming majority of states who rely on the FCC approach in setting rates for conduit and pole attachments.[14] The FCC formula has withstood the test of time as a straightforward and economically appropriate approach for determining just and reasonable pole attachment rates and conduit rentals. A key attribute of the FCC methodology is that it is based on publicly reported and verifiable data.[15]

[13] See New Rule, R.2003, d.452, effective November 17,2003. See 35 N.J.R. 100(a),35 N.J.R. 5294(a).

[14] The FCC formula is applied directly by the FCC in 32 states (including the District of Columbia) , and of the 19 states that have certified to regulate pole attachment rates, the majority use a formula that closely (or precisely) tracks the FCC formula. See FCC Public Notice, "States that have Certified that They Regulate Pole Attachments," 7 FCC Rcd 1498, 1992 FCC LEXIS 931 (Released February 21, 1992).

[15] The only exception is, in the case of electric utilities, data is not publicly reported on the number of conduit feet in the system. This data must be provided from the internal records of the utility.

Q. WHAT DO YOU MEAN WHEN YOU SAY THE FCC FORMULA IS AN ECONOMICALLY APPROPRIATE APPROACH TO SETTING RATES?

A. The FCC formula is an economically appropriate approach in that it follows cost allocation principles well established in the economics literature. Under the FCC methodology, the recovery of the cost of the pole or conduit attachment is based upon the concept of cost causation (i.e., cost-causer pays). Such costs reflect costs that would not be borne by the utility *but for* the attacher, including a normal (reasonable) return to capital. Costs designed in this manner prevent a situation of cross-subsidy between the utility conduit owner and the third-party attacher.

The principle of cost causation is firmly established in Section 224 of the Communications Act upon which the FCC formula for poles and conduit is based. Consistent with the economic principle of cost causation, Section 224(d) links the pole attachment rental to marginal costs, by establishing a range of reasonableness that has marginal costs as a lower bound, and fully allocated cost as an upper bound. The actual FCC rate formula adheres to the *greater* fully allocated cost standard described in Section 224(d), which by definition, allows the utility to recover through the rental rate ongoing costs *much more* than marginal cost.[16] It does so by allowing recovery of a cost-causative portion of the utilities' operating expenses and actual capital costs (including overall return to capital) attributable to the entire pole or conduit, based on booked costs.

Q. WILL THE BPU FORMULA, WHICH IS BASED ON HISTORIC OR BOOKED COSTS, COMPENSATE THE UTILITY FOR THE CURRENT COST OF THE RESOURCES USED BY THE UTILITY TO ACCOMMODATE A THIRD PARTY RENTER OF CONDUIT SPACE?

[16]See *Alabama Power*, 311 F.3d at 1363, 1369.

A. Yes, absolutely. The renting of conduit space to third parties such as AT&T does not cause the utility to incur capital costs. This is because PSE&G does not expressly construct conduits to provide for the needs of third party renters; rather, it constructs these facilities for its own use and rents only excess capacity to third party renters such as cable operators and competitive telecommunications carriers. Unlike a construction company offering to build new conduit from scratch, PSE&G typically is not required to open the street, dig a new trench, install more conduits, backfill and repave in order to accommodate an attacher. Moreover, because conduit is such a long-lived asset, there is relatively little replacement capacity constructed on a yearly basis. It is therefore inappropriate from an economics perspective to charge conduit occupants anything approaching the full cost of a new conduit. In instances where space has to be created to accommodate third party operations, the attacher is typically required to pay for the creation of such space. This includes any direct out-of-pocket expenses incurred by PSE&G for the physical installation or relocation of the cables themselves when it makes the space available.

Thus, if PSE&G actually does incur out-of-pocket costs to accommodate a third party attacher, for example, in the case of a relocation, those costs may be recovered, dollar for dollar, in the form of "make-ready charges" at the time they are incurred."[17] PSE&G does not incur forward-looking costs that are not already recovered from the cable operator or telecommunications carrier either in the rental rate or the make-ready charges. Indeed, to recover these same costs in "forward looking" or "market-based" charges while retaining "make-ready" reimbursements would result in double charging and over recovery. The recovery of a fully allocated embedded cost, including a return on utility capital, in addition to make-ready type charges, more than

[17] *Second Report & Order* in CC Docket 781-44, 72 FCC 2d 59, 72 ¶29 (1979). See also PSE&G Response to AT&T-22. See also Testimony of Anthony Fea at 6.

compensates PSE&G for any costs economically caused by, or incurred in connection with, the attachment.

Moreover, it is common practice for a third party attacher to pull "inner duct"[18] in order to create additional pathways within the conduit. In this way, PSE&G can actually end up with *more* pathways, i.e., greater available capacity, as a result of the third party's attachment, and PSE&G retains title to the inner duct and may use or lease the duct space not being used by the third party.[19]

Q. WHAT ARE THE COMPONENTS OF THE BPU FORMULA AND HOW ARE THEY APPLIED IN DERIVING THE MAXIMUM RATE FOR CONDUIT SPACE?

A. There are three major components of the BPU formula, the percent of conduit capacity occupied by an attacher, the net linear cost of conduit, and the carrying charge factor. As shown below, the maximum rate under the BPU formula, as appearing in N.J.A.C. 14:18-2.11(a), is derived by multiplying the product of the first two components of the formula (the net linear cost of conduit times the percentage of conduit capacity) by a carrying charge factor that translates investment costs into annual costs.

Maximum Rate = [Percentage of Conduit Capacity] times [Net Linear Cost of a Conduit] times [Carrying Charge Rate]

Q. HOW IS THE FIRST COMPONENT OF THE BPU FORMULA, THE PERCENT OF CONDUIT CAPACITY OCCUPIED, CALCULATED?

[18] See Testimony of Anthony Fea at 2.
[19] See Testimony of Anthony Fea at 6.

A. When the net linear cost of conduit is expressed in duct feet, the percentage of conduit capacity is arrived simply by dividing one by the number of inner ducts within the duct. In instances where no inner duct has been installed within the duct, the BPU formula follows the FCC's half-duct convention, which presumes an attacher occupies only half of the usable duct space. Using that presumption, the percentage of conduit capacity used in the formula simplifies to one-half.[20]

However, the FCC has recognized that where the attacher pulls inner duct, the amount of usable space occupied by the attacher will generally be less than half, and use of the half-duct convention creates too large a presumption of usable space and an unreasonably high rental rate. In its 2001 pole attachment decision,[21] the FCC retained the half-duct convention, but revised the formula as described above to explicitly allow for the situation where the lessee pulls inner duct. The revision to the formula reflects the notion underlying the FCC approach that attachers should only be assessed for that amount of conduit space actually occupied. When there is the evidence to demonstrate an even smaller portion of the duct is occupied through the use of inner duct, there is good cause to rebut the FCC presumption of 2 inner ducts per duct, i.e., presuming that a lessee occupies one-half of the duct.

This is indeed the case here, as there is evidence indicating a typical installation of 3 inner ducts in ducts occupied by AT&T.[22] Where there is credible occupancy-specific data, reliance on that

[20] Maximum Rate = [0.5] times [Net Conduit Investment divided by System Conduit Length] times [Carrying Charge Rate].
[21] See FCC, CS Docket No. 97-98, CS Docket No. 97-151,*Consolidated Partial Order on Reconsideration,*,paras. 95-98.
[22] See Testimony of Anthony Fea at 2, indicating his experience with 3 inner ducts as being representative of the typical AT&T installation within PSE&G's conduit system.

data is, as a general rule, preferable to the generic presumption, and fully consistent with the FCC or BPU formula. Accordingly, for purposes of applying the BPU formula in this case, the correct percentage of conduit capacity occupied by AT&T is 1/3 or 33%.

Most typically, as set forth in the BPU rules,[23] total system conduit length is measured in duct feet, although it can also be expressed in conduit feet.[24] In that situation, a slightly different version of the formula applies where the percentage of conduit capacity is arrived at by multiplying the first factor (one divided by the number of inner ducts)[25] by the ratio of conduits/ducts (or one divided by the number of ducts in the conduit).[26] For purposes of applying the BPU formula in this case, I have used the first version of the formula, consistent with PSE&G's claim that the system length data it has provided in response to discovery is expressed in duct feet.

Q. PLEASE DESCRIBE HOW THE SECOND COMPONENT OF THE BPU FORMULA, THE NET LINEAR COST OF CONDUIT, IS DERIVED.

[23] See N.J.A.C. 14:18-2.11.

[24] The distinction between conduit, duct, and inner duct are described by the FCC as follows: "Conduits are structures that provide physical protection for cables and allow new cables to be added inexpensively along a pathway or route. A conduit consists of one or more ducts, which are the enclosures that carry the cables. Often, when a cable operator's or telecommunications carrier's cables are placed in a duct, three or more inner duct are inserted into the duct allowing 'one duct to be treated more like conduit.' A collection of conduits, together with their supporting infrastructure, constitutes a conduit system." FCC, CS Docket No. 97-98, CS Docket No. 97-151, *In the Matter of Amendment of Commission's Rules and Policies Governing Pole Attachments, Consolidated Partial Order on Reconsideration, FCC 01-170,* May 25, 2001, at para. 87 (footnotes omitted).

[25] Where the half-duct convention is used, the formula simplifies to one-half divided by the average number of ducts in conduit, but again there is no valid basis to rely on the half-duct convention where there is specific evidence of inner duct installation.

[26] See FCC, CS Docket No. 97-98, CS Docket No. 97-151,*Consolidated Partial Order on Reconsideration,* Appendix F-2.

A. Under the BPU methodology, the first step in deriving the net linear cost of conduit is the utilities' actual or embedded "booked" costs, as reported on the FERC Form 1 Report in Account 366 ("Underground Conduit").[27] For conduit, the utility's actual embedded cost is expressed in the methodology as net conduit investment, defined as gross conduit system investment account less accumulated depreciation, less accumulated deferred taxes. The net conduit system investment is then divided by total system conduit length to arrive at the net linear cost of conduit. As shown in Attachment 2, the result of that calculation is a net linear cost of conduit of $3.01.

Q. WHAT IS THE CARRYING CHARGE FACTOR AND HOW IS COMPUTED?

A. The carrying charge factor (CCF) is the third major component of the FCC formula, and as mentioned above, is used to convert the net linear capital cost of conduit space into an annual rental amount. The carrying charge factor is comprised of the sum of several different expense factors - rate of return, depreciation, taxes (federal income and miscellaneous), maintenance, and administrative - each expressed as a percentage of expense to net plant in service. The appropriate net plant in service amount used in the denominator of the expense factor is a function of the level of granularity (or aggregation) of the expense as reported in the FERC Form 1 accounting system.

Q. COULD YOU EXPLAIN IN MORE DETAIL THE DERIVATION OF EACH OF THE FACTORS THAT ARE SUMMED TO DERIVE THE CCF?

A. Yes, the derivations of the various factors that are summed to derive the CCF are as follows:

[27] The FCC ARMIS Report supplies the data for telephone utilities.

Rate of return: Under the FCC methodology, where no state authorized rate of return is available, the default level for the overall rate of return is 11.25%. This factor encompasses a total return on invested debt and equity capital of the utility, as previously found by the FCC to provide a fair and reasonable return on investment for a regulated utility.

Depreciation: The CCF for depreciation is based on the FERC-prescribed depreciation rate for conduit plant of .0249. Because that rate applies to *gross* investment, and the other elements of the CCF are expressed on a *net* plant basis, it is necessary to multiply the depreciation rate for conduit plant by the ratio of gross conduit investment (Account 366) to net conduit investment. The net conduit investment associated with Account 366 is derived using the same method of proration described above for maintenance expense. I have computed the depreciation factor to be approximately 7.54%

Taxes: Expenses relating to taxes are tracked at the aggregate level of electric plant in service. Accordingly, the tax component of the CCF is calculated by taking the relevant expense account figures per FERC Form 1 (Accounts 408-411[28]) and dividing them by net plant in service for total electric plant (i.e., gross electric plant less accumulated depreciation less accumulated deferred taxes). I have computed the tax factor to be approximately 8.68%.

Maintenance: Expenses relating to this element of the CCF is tracked at a more granular level in Account 594 ("Maintenance of Underground Lives"), which under the FCC formula is associated with the following three distribution plant in service accounts: Account 366

("Underground Conduit"), 367 ("Underground conductors and devices") and 369 ("Services"). Accordingly, the CCF for that element is calculated by dividing the amount of maintenance expense recorded in Account 594 by the net plant in service associated with each of these three individual accounts.

An additional step is required in the calculation of the net plant in service associated with these three distribution plant accounts, because neither accumulated depreciation nor accumulated deferred taxes is tracked at the level of granularity of the individual plant accounts in the FERC reporting system. Accumulated depreciation (Account 108) is reported at the more aggregated level of total distribution plant in service, and accumulated deferred taxes (Accounts 281-283,190[29]) are reported at the even more aggregated level of total electric plant in service. Under the FCC formula approach, expenses are allocated to individual plant accounts based on relative investment, using a method referred to as prorating.

To prorate, one simply takes the aggregate expense figure and multiplies that figure by the ratio of the individual plant in service account to the relevant aggregated plant in service figure. While prorating is simple to perform, it is important, for reliability purposes, that the aggregated plant in service figure contained in the denominator of the ratio used to prorate expense be consistent with the level of aggregation of the expense figure contained in the numerator.

[28] Account 411.1 is a credit income account relating to deferred income taxes, which offsets the current year's tax expense. Under accounting rules, the amount in this account must be subtracted when summing the various tax debit accounts.

[29] Account 190 is a debit asset account relating to deferred income taxes, and under accounting rules, the amount in this account must be subtracted when summing the various deferred tax liability (credit) accounts.

Accumulated depreciation is tracked at the level of total *distribution* plant; accordingly, it is properly prorated to Accounts 366, 367, and 369, by multiplying the aggregate accumulated depreciation figure for *distribution* plant by the ratio of gross plant in service for each of the respective individual accounts to gross *distribution* plant. Similarly, accumulated taxes is tracked at the level of total *electric* plant; accordingly, it is properly prorated to the individual accounts by multiplying the aggregate accumulated deferred tax figure for *electric* plant by the ratio of gross plant in service for the respective individual accounts to gross *electric* plant in service.

Based on this approach, I have computed an overall maintenance factor of approximately 3.03%

Administrative. Expenses relating to administration, like expenses related to taxes, are tracked at the aggregate level of electric plant in service. Accordingly, the administrative component of the CCF is calculated by taking the relevant expense account figures per FERC Form 1 (Accounts 920-931 and 935) and dividing them by net plant in service for total electric plant (i.e., gross electric plant less accumulated depreciation less accumulated deferred taxes). I have computed the administrative factor to be approximately 11.86%

As shown in more detail on Attachment 2 to this testimony, the sum of these individual factors leads to an overall carrying charge factor of .423661, or approximately 42.37%

BASED ON PROPER APPLICATION OF THE BPU FORMULA, PSE&G SHOULD BE ALLOWED TO CHARGE AT&T A CONDUIT RENTAL RATE NO MORE THAN $0.42 PER FOOT OF CONDUIT SPACE.

Q. HAVE YOU PERFORMED A CALCULATION OF THE MAXIMUM ALLOWABLE CONDUIT RATE FOR PSE&G USING THE BPU FORMULA?

A. Yes, I have. Those calculations are presented in Attachment 2 to this testimony. As shown in those calculations, in which I multiply net investment per foot of duct (approximately $3.01) by the carrying charge factor (approximately 42.37%), and then by the percentage of conduit capacity occupied (33% to account for AT&T's occupancy of one third of a duct), the fully allocated cost for 2003 is **$0.42** per foot of inner duct occupied.[30]

Q. MS. KRAVTIN, THE MAXIMUM ALLOWABLE RATE YOU HAVE DERIVED USING THE BPU FORMULA IS SIGNIFICANTLY LOWER THAN THE RATE PSE&G IS CURRENTLY CHARGING AT&T. SHOULD THIS CONCERN THE BPU?

A. No, there are several reasons why it should not. First, the maximum allowable rate I have calculated using the BPU formula is of a magnitude consistent with other regulated conduit rental rates with which I am familiar, including the $0.37 rental rate Verizon now charges AT&T for conduit rental in New Jersey. Second, the rate I have derived is consistent with the expectations of a "low" marginal cost for third party pole and conduit attachments rate as expressed by Congress and the FCC and as embodied in the rules promulgated in Section 224 of the Communications Act.[31] As mentioned above, pursuant to Section 224, the just and reasonable rate is designed to reflect only those costs causally linked to the attachment, and typically, many of those costs can be recovered through make ready charges that apply in addition to the rental rate. By contrast, the current rate PSE&G charges AT&T reflects a monopoly rate level. Third, there are reasons based on information provided by PSE&G in discovery to believe that even the $0.42 rate may be overstated.

[30] Calculated on the basis of the FCC's half duct convention, the rate would be $0.64 per foot of conduit space, although for the reasons discussed in this testimony, a rate derived based on the half-duct convention overstates the cost properly attributable to the conduit attachment. In this case, the rate would be overstated by 50%, for the simple reason that 1/2 is 50% greater than 1/3.

Q. WHAT ARE THE REASONS YOU BELIEVE THE $0.42 RATE YOU HAVE CALCULATED MAY BE UNDERSTATED RELATIVE TO THE COSTS PSE&G ACTUALLY INCURS IN CONNECTION WITH AT&T'S OCCUPANCY OF ITS CONDUIT?

A. First, as a general proposition, and as described above, the BPU formula rate is a fully allocated cost, which by definition exceeds the marginal cost of attachment. This combined with the fact that PSE&G is able to impose make ready charges for any non-recurring or out of pocket costs it incurs in connection with a conduit attachment by AT&T more than ensures PSE&G full cost recovery.

Second, as a specific matter, there exist certain key discrepancies with regard to the number of conduit feet in PSE&G's system and also in regard to the total conduit investment booked to Account 366, Conduit Plant, which PSE&G has not been able to adequately explain. Both of these discrepancies suggest that the maximum allowable rate results I have calculated based on the BPU formula may be overstated.

Q. COULD YOU DESCRIBE THESE DISCREPANCIES IN MORE DETAIL AND HOW THEY IMPACT THE RATE CALCULATION UNDER THE BPU FORMULA?

A. Yes. First, as regards the number of conduit feet in PSE&G's system, as mentioned above, PSE&G uses the term "conduit" feet synonymously with "duct" feet. This is confusing, since a conduit is normally defined as a structure containing one or more ducts, and a utility would normally construct a bank of multiple ducts within a conduit. Normally, a multiplier is applied to convert conduit feet into the corresponding duct feet equivalency, but in this case,

[31] See FCC, CS Docket No. 97-98, CS Docket No. 97-151,*Consolidated Partial Order on Reconsideration*, para.8, n.1.

PSE&G asserts that multiplier is implicit in the conduit feet figure of 38,133,506.[32] The BPU formula calculates the net linear cost of conduit by dividing net conduit investment by total number of duct feet in the system. Accordingly, if the total number of duct feet is understated, then the net linear cost of conduit - and the maximum allowable rate which itself is based on the net linear cost of conduit - will be correspondingly overstated by a similar magnitude. To date, PSE&G has not been able to provide workpapers or any other back up materials that would support its assertion that the 38,133,506 figure it has identified as "conduit" feet is in fact a true "duct" feet equivalent.

Second, as regards the total conduit investment booked to Account 366, the amount identified as gross conduit investment per the FERC Form 1 report for 2003 is significantly higher than the amount identified by PSE&G in response to AT&T-12 as being derived directly from Mass Property Records. PSE&G has not been able to reconcile the two amounts, other than to point generically to differences relating to "the value of manholes and handholes associated with the conduit and to a lesser extent is due to account reclassifications and location property."[33] PSE&G downplays the discrepancy, noting that the gross conduit investment derived from the Mass Property Records is used only for the purposes of deriving total system conduit feet. However, to the extent PSE&G cannot satisfactorily reconcile the conflicting gross investment amounts, it is not readily apparent why the higher figure reported in the FERC Form 1 is necessarily more accurate than the smaller figure derived directly from PSE&G's property records. Clearly, if the gross conduit investment is overstated, then the net linear cost of conduit

[32]The 38,133,506 figure was provided by PSE&G in its Response to AT&T-36. As mentioned earlier, the length of the conduit system is the one item used in the BPU formula which is not available from public sources, and must be provided by the electric utility.
[33] PSE&G Response to AT&T-38.

derived from that overstated investment, and the maximum allowable rate based on that net linear cost, will be correspondingly overstated. Alternatively, if one accepts PSE&G's position that the higher gross investment figure reported in FERC Form 1 is the more accurate figure, that would appear to imply that the system conduit feet figure derived based on the smaller gross investment figure would be understated, assuming a consistent ratio of gross investment per foot. As noted above, under the BPU formula, understating system conduit length would also serve to produce an overstated maximum allowable rate.

Q. MS. KRAVTIN, DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?

A. Yes, it does.

Attachment 1

Patricia D. Kravtin

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Summary

Consulting economist with specialization in telecommunications, cable, and energy markets. Extensive knowledge of complex economic, policy and technical issues facing incumbents, new entrants, regulators, investors, and consumers in rapidly changing telecommunications, cable, and energy markets.

Experience

CONSULTING ECONOMIST

2000–Present Independent Consulting Swampscott, MA

- Providing expert witness services and full range of economic, policy, and technical advisory services in the telecommunications, cable, and energy fields.

SENIOR VICE PRESIDENT/SENIOR ECONOMIST

1982–2000 Economics and Technology, Inc. Boston, MA

- Active participant in regulatory proceedings in over thirty state jurisdictions, before the Federal Communications Commission, Federal Energy Regulatory Commission, and other international regulatory authorities on telecommunications, cable, and energy matters.

- Provided expert witness and technical advisory services in connection with litigation and arbitration proceedings before state and federal regulatory agencies, and before U.S. district court, on behalf of diverse set of pubic and private sector clients (see Record of Prior Testimony).

- Extensive cable television regulation expertise in connection with implementation of the Cable Act of 1992 and the Telecommunications Act of 1996 by the Federal Communications Commission and local franchising authorities.

- Led analysis of wide range of issues related to: rates and rate policies; cost methodologies and allocations; productivity; cost benchmarking; business case studies for entry into cable, telephony, and broadband markets; development of competition; electric industry restructuring; incentive or performance based regulation; universal service; access charges; deployment of advanced services and broadband technologies;

and access to pole attachments and other rights-of-way.

- Served as advisor to state regulatory agencies, assisting in negotiations with utilities, non-partial review of record evidence, deliberations and drafting of final decisions.

- Author of numerous industry reports and papers on topics including market structure and competition, alternative forms of regulation, patterns of investment, telecommunications modernization, and broadband deployment (see listing of Reports and Studies).

- Invited speaker before various national organizations, state legislative committees and participant in industry symposiums.

RESEARCH/POLICY ANALYST

1978–1980 Various Federal Agencies Washington, DC

- Prepared economic impact analyses related to allocation of frequency spectrum (Federal Communications Commission).

- Performed financial and statistical analysis of the effect of securities regulations on the acquisition of high-technology firms (Securities and Exchange Commission).

- Prepared analyses and recommendations on national economic policy issues including capital recovery. (U.S. Dept. of Commerce).

Education

1980–1982 Massachusetts Institute of Technology Boston, MA

- Graduate Study in the Ph.D. program in Economics (Abd). General Examinations passed in fields of Government Regulation of Industry, Industrial Organization, and Urban and Regional Economics.

- National Science Foundation Fellow.

1976–1980 George Washington University Washington, DC

- B.A. with Distinction in Economics.

- Phi Beta Kappa, Omicron Delta Epsilon in recognition of high scholastic achievement in field of Economics. Recipient of four-year honor scholarship.

Prof. Affiliation

American Economic Association

Reports and Studies (authored and co-authored)

Report on the Financial Viability of the Proposed Greenfield Overbuild in the City of Lincoln, California, prepared for Starstream Communications, August 12, 2003.

"Assessing SBC/Pacific's Progress in Eliminating Barriers to Entry, The Local Market in California is Not Yet 'Fully and Irreversibly Open," prepared for the California Association of Competitive Telecommunications Companies (CALTEL), August 2000.

"Final Report on the Qualifications of Wide Open West-Texas, LLC For a Cable Television Franchise in the City of Dallas," prepared for the City of Dallas, July 31, 2000.

"Final Report on the Qualifications of Western Integrated Networks of Texas Operating L.P. For a Cable Television Franchise in the City of Dallas," prepared for the City of Dallas, July 31, 2000.

"Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives in Utah" prepared for The Division of Public Utilities, March, 2000.

"Building a Broadband America: The Competitive Keys to the Future of the Internet," prepared for The Competitive Broadband Coalition, May 1999.

"Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30," prepared for AT&T and MCI Telecommunications, June 1998.

"Analysis of Opportunities for Cross Subsidies Between GTA and GTA Cellular," prepared for Guam Cellular and Paging, submitted to the Guam Public Utilities Commission, July 11, 1997.

"Reply to Incumbent LEC Claims to Special Revenue Recovery Mechanisms," submitted in the Matter of Access Charge Reform in CC Docket 96-262, February 14, 1997.

"Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the 'Gap' between embedded and forward-looking costs," FCC CC Docket 96-262, January 29, 1997.

"Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the 'Gap' between Historical Costs and Forward-looking TSLRIC," Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, FCC CC 96-98, May 30, 1996.

"Reply to X-Factor Proposals for the FCC Long-Term LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, March 1, 1996.

"Establishing the X-Factor for the FCC Long-Terms LEC Price Cap Plan," prepared for the Ad Hoc Telecommunications User Committee, submitted in FCC CC Docket 94-1, December 1995.

"The Economic Viability of Stentor's 'Beacon Initiative,' exploring the extent of its financial dependency upon revenues from services in the Utility Segment," prepared for Unitel, evidence before the Canadian Radio-television and Telecommunications Commission, March 1995.

"Fostering a Competitive Local Exchange Market in New Jersey: Blueprint for Development of a Fair Playing Field," prepared for the New Jersey Cable Television Association, January 1995.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," Feb. 1994.

"A Note on Facilitating Local Exchange Competition," prepared for E.P.G., Nov. 1991.

"Testing for Effective Competition in the Local Exchange," prepared for the E.P.G., October 1991.

"A Public Good/Private Good Framework for Identifying Pots Objectives for the Public Switched Network" prepared for the National Regulatory Research Institute, October 1991.

"Report on the Status of Telecommunications Regulation, Legislation, and modernization in the states of Arkansas, Kansas, Missouri, Nebraska, Oklahoma and Texas," prepared for the Mid-America Cable-TV Association, December 13, 1990.

"The U S Telecommunications Infrastructure and Economic Development," presented at the 18th Annual Telecommunications Policy Research Conference, Airlie, Virginia, October 1990.

"An Analysis of Outside Plant Provisioning and Utilization Practices of US West Communications in the State of Washington," prepared for the Washington Utilities and Transportation Commission, March 1990.

"Sustainability of Competition in Light of New Technologies," presented at the Twentieth Annual Williamsburg Conference of the Institute of Public Utilities, Williamsburg, VA, December 1988.

"Telecommunications Modernization: Who Pays?," prepared for the National Regulatory Research Institute, September 1988.

"Industry Structure and Competition in Telecommunications Markets: An Empirical Analysis," presented at the Seventh International Conference of the International Telecommunications Society, MIT, July 1988.

"Market Structure and Competition in the Michigan Telecommunications Industry," prepared for the Michigan Divestiture Research Fund Board, April 1988.

"Impact of Interstate Switched Access Charges on Information Service Providers - Analysis of Initial Comments," submitted in FCC CC Docket No. 87-215, October 26, 1987.

"An Economic Analysis of the Impact of Interstate Switched Access Charge Treatment on Information Service Providers," submitted in FCC CC Docket No. 87-215, September 24, 1987.

"Regulation and Technological Change: Assessment of the Nature and Extent of Competition From A Natural Industry Structure Perspective and Implications for Regulatory Policy Options," prepared for the State of New York in collaboration with the City of New York, February 1987.

"BOC Market Power and MFJ Restrictions: A Critical Analysis of the 'Competitive Market' Assumption," submitted to the Department of Justice, July 1986.

"Long-Run Regulation of AT&T: A Key Element of a Competitive Telecommunications Policy," *Telematics*, August 1984.

"Economic and Policy Considerations Supporting Continued Regulation of AT&T," submitted in FCC CC Docket No. 83-1147, June 1984.

"Multi-product Transportation Cost Functions," MIT Working Paper, September 1982.

Record of Prior Testimony

2006

Before the **Federal Communications Commission**, *In the Matter of Florida Cable Telecommunications Association, Inc., Comcast Cablevision of Panama City, Inc.; Mediacom Southeast, L.L.C.; and Cox Communications Gulf, L.L.C.; Complainants v. Gulf Power Company, Respondent.* EB Docket No. 04-381. Testimony on behalf of Complainants filed March 31, 2006, Deposition March 15, 2006, Cross-Examination April 26-27, 2006.

2005

Before the **United States District Court for the Eastern District of New York**, *Coastal Communication Service, Inc. and Telebeam Telecommunications Corporation, Plaintiffs - against –The City of New York and New York City Department of Information Technology and Telecommunications*, 02 Civ. 2300 (RJD) (SMG), Expert Report filed February 4, 2005; Rebuttal Expert Report, filed August 29, 2005, Deposition December 1, 2005.

2004

Before the **Ontario Energy Board**, *In the Matter of the Ontario Energy Board Act* 1998, S.O.1998, c.15, (Schedule B); and *In the Matter of an Application pursuant to section 74 of the Ontario Energy Board Act*, 1998 by the Canadian Cable Television Association for an Order or Orders to amend the licenses of electricity distributors, RP-2003-024, Reply Evidence, filed September 27, 2004 (jointly with Paul Glist), Cross-examination October 26-27, 2004.

2003

Before the **United States District Court for the Southern District of California,** *Level 3 Communications, LLC v. City of Santee,* Civil Action No. 02-CV-1193, Rebuttal Expert Report,
filed July 18, 2003

2004

Before the **Ontario Energy Board**, *In the Matter of the Ontario Energy Board Act* 1998, S.O.1998, c.15, (Schedule B); and *In the Matter of an Application pursuant to section 74 of the Ontario Energy Board Act*, 1998 by the Canadian Cable Television Association for an Order or Orders to amend the licenses of electricity distributors, RP-2003-024, Reply Evidence, filed September 27, 2004 (jointly with Paul Glist), Cross-examination October 26-27, 2004.

2003

Before the **United States District Court for the Southern District of California,** *Level 3 Communications, LLC v. City of Santee,* Civil Action No. 02-CV-1193, Rebuttal Expert Report,
filed July 18, 2003.

2002

Before the **New York State Public Service Commission**, *In the Matter of the Cable Television & Telecommunications Association of New York, Inc., Petitioner, v. Verizon New York, Inc., Respondent,* Affidavit filed December 19, 2002.

Before the **West Virginia Public Service Commission**, Community Antenna Service, Inc. v. Charter Communications, Case No. 01-0646-CTV-C, Live Direct Testimony and Cross-examination, June 12, 2002.

Before the **Public Service Commission of the District of Columbia,** Comcast Cablevision of the District, L.L.C., Complainant, v. Verizon Communications Inc. – Washington, D.C., Respondent, Formal Case No. 1006, Direct Testimony filed June 11, 2002; Rebuttal Testimony filed June 24, 2002.

Before the **Federal Communications Commission,** in *Cavalier Telephone, LLC, Complainant, v. Virginia Electric & Power Co., D/b/a Dominion Virginia Power, Respondent,* Case No. EB-02-MD-005, Declaration filed May 21, 2002.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: Petition of Centennial Puerto Rico License Corp. for arbitration pursuant to Sections 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Puerto Rico Telephone Company*, on behalf of Centennial Puerto Rico License Corp., Direct Testimony filed April 16, 2002; Deposition May 7, 2002, May 14, 2002; Reply Testimony filed May 20, 2002, Cross-examination May 22, 2002.

Before the **Federal Energy Regulatory Commission**, *in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation***, Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, Cross-answering Testimony filed January 23, 2002; Rebuttal Testimony filed May 31, 2002, Cross-examination July 31, 2002.

2001

Before the **United States District Court for the Northern District of New York**, *TC Systems, Inc. and Teleport Communications-New York vs. Town of Colonie, New York*, Civil Action No. 00-CV-1972, Expert Report filed November 16, 2001; Deposition December 7, 2001, Rebuttal Expert Report filed December 20, 2001, Deposition January 9, 2002.

Before the **Federal Energy Regulatory Commission**, *in Re: In the Matter of* ***Transcontinental Gas Pipe Line Corporation***, Docket No. RP01-245, on behalf of the University of Maryland-College Park, Johns Hopkins University and Johns Hopkins University Health System, and the North Carolina Utilities Commission, filed November 15, 2001.

Before the **Public Service Commission of the District of Columbia,** Comcast Cable Communications, Inc. d/b/a/Comcast Cable of Washington, D.C., Complainant, v. Verizon Communications Inc. – Washington, D.C., Respondent, filed September 21, 2001.

Before the **Public Utility Commission of Texas**, State Office of Administrative Hearings, SOAH Docket No. 473-00-1014, PUC Docket No. 22349, *Application of Texas-New Mexico Power Company for Approval of Unbundled Cost of Service Rate Pursuant to PURA § 39.201and Public Utility Commission Substantive Rule §25.344*, on behalf of Cities Served by Texas-New Mexico Power, filed January 25, 2001.

2000

Before the **Puerto Rico Telecommunications Regulatory Board**, in *AT&T of Puerto Rico, Inc. et al v. Puerto Rico Telephone Company, Inc.,Re: Dialing Parity*, Docket Nos. 97-Q-0008, 98-Q-0002, on behalf of Lambda Communications Inc., Cross-examination October 19-20, 2000.

Before the **Department of Telecommunications and Energy of the Commonwealth of Massachusetts**, Docket No. DTE 98-57 – Phase III, *Re: Bell Atlantic- Massachusetts Tariff No. 17 Digital Subscriber Line Compliance Filing and Line Sharing Filing*, (Panel Testimony with Joseph Riolo, Robert Williams, and Michael Clancy) on behalf of Rhythms Links Inc. and Covad Communications Company, filed July 10, 2000.

Before the **New York State Public Service Commission** in *Re: Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements* on behalf of the Cable Television & Telecommunications Association of New York, Inc., Direct Testimony filed June 26, 2000, Supplemental Testimony filed November 29, 2000.

Before the **Maryland Public Service Commission**, on behalf of Rhythms Links Inc. and Covad Communications Company, filed jointly with Terry L. Murray and Richard Cabe, May 5, 2000.

Before the **Public Utility Commission of Texas**, in *Re: Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996,* CC Docket No. 21982, on behalf of AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications Houston, Inc., filed March 31, 2000.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed January 24, 2000.

Before the **Federal Energy Regulatory Commission**, in *Re: In the Matter of Northern Border Pipeline Company*, on behalf of the Canadian Association of Petroleum Producers and the Alberta Department of Resource Development, filed January 20, 2000.

1999

Before the **Connecticut Department of Public Utilities**, in *Re: Evaluation and Application to Modify Franchise Agreement by SBC Communications Inc., Southern New England telecommunications Corporation and SNET Personal Vision, Inc.,* Docket No. 99-04-02, on behalf of the Office of Consumer Counsel, filed June 22, 1999; cross- examination July 8, 1999

Before the **Illinois Commerce Commission**, in *Re: Illinois Commerce Commission on its own Motion v. Illinois Bell Telephone Company; et al: Investigation into Non-Cost Based Access Charge Rate Elements in the Intrastate Access Charges of the Incumbent Local Exchange Carriers in Illinois, Illinois Commerce Commission on its own Motion Investigation into Implicit Universal Service Subsidies in Intrastate Access Charges and to Investigate how these Subsidies should be Treated in the Future, Illinois Commerce Commission on its own motion Investigation into the Reasonableness of the LS2 Rate of Illinois Bell Telephone Company*, Docket No. 97-00601, 97-0602, 97-0516, Consolidated, on behalf of City of Chicago, filed January 4, 1999; rebuttal February 17, 1999.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Arbitration of Interconnection Rates, Terms and Conditions between Centennial Wireless PCS Operations Corp., Lambda Communications Inc., and the Puerto Rico Telephone Company*, behalf of Centennial Wireless PCS Operations Corp. and Lambda Communications Inc., cross-examination February 16, 1999.

1998

Before the **California Public Utilities Commission**, in *Re: In the Matter of the Application of Pacific Bell (U 1001 C), a Corporation, for Authority for Pricing Flexibility and to Increase Prices of Certain Operator Services, to Reduce the Number of Monthly Assistance Call Allowances, and Adjust Prices for Four Centrex Optional Features,* Application No. 98-05-038, on behalf of County of Los Angeles, filed November 17, 1998, cross-examination, December 9, 1998.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of PRTC's Tariff K-2 (Intra-island access charges)*, Docket no. 97-Q-0001, 97-Q-0003, on behalf of Lambda Communications, Inc., filed October 9, 1998, cross-examination October 9, 1998.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of the Southern New England Telephone Company*, Docket no. 98-04-03, on behalf of the Connecticut Office of Consumer Counsel, filed August 17, 1998, cross-examination February 18, 1999.

Before the **California Public Utilities Commission**, in *Re: Pacific Gas & Electric General Rate Case*, A.97-12-020, on behalf of Office of Rate Payers Advocates CA PUC, filed June 8, 1998.

1997

Before the **South Carolina Public Service Commission**, in *Re: Proceeding to Review BellSouth Telecommunications, Inc.'s Cost for Unbundled Network Elements*, Docket no. 97-374-C, on behalf of the South Carolina Cable Television Association, filed November 17, 1997.

Before the **State Corporation Commission of Kansas**, in *Re: In the Matter of and Investigation to Determine whether the Exemption from Interconnection Granted by 47 U.S.C. 251(f) should be Terminated in the Dighton, Ellis, Wakeeney, and Hill City Exchanges*, Docket No. 98-GIMT-162-MIS, on behalf of classic Telephone, Inc., filed October 23, 1997.

Before the **Georgia Public Services Commission,** in *Re: Review of Cost Studies, Methodologies, and Cost-Based Rates for Interconnection and Unbundling of BellSouth Telecommunications Services*, Docket No. 7061-U, on behalf of the Cable Television Association of Georgia, filed August 29, 1997, cross-examination September 19, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Price Caps Performance Review for Local Exchange Carriers, Access Charge Reform*, CC Dockets 94-1, 96-262, on behalf of Ad Hoc Telecommunications Users Committee, filed July 11, 1997.

Before the **Federal Communications Commission**, in *Re: In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, CS Docket 97-98, on behalf of NCTA, filed June 27, 1997.

Before the **Public Utilities Commission of the State of California**, in *Re: Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks*, R.93-04-003, I.93-04-002AT&T, filed March 19, 1997, reply April 7, 1997.

Before the **Puerto Rico Telecommunications Regulatory Board**, in *Re: In the Matter of Centennial Petition for Arbitration with PRTC*, on behalf of Centennial Cellular Corporation, filed February 14, 1997, supplemental March 10, 1997.

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1996

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Before the **State Corporation Commission of the State of Kansas**, in *Re: In the Matter of a General Investigation Into Competition Within the Telecommunications Industry in the State of Kansas*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas Cable Telecommunications Association, Inc., filed July 15, 1996, cross-examination August 14, 1996.

Before the **Federal Communications Commission**, in *Re: Price Caps Performance Review for Local Exchange Carriers*, CC Docket 94-1, on behalf of Ad Hoc Telecommunications Users Committee, filed July 12, 1996.

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Before the **United States District Court for the Eastern District of Tennessee at Greeneville**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant,* CIV 2-93-55, filed December 7, 1996.

1995

Before the **Federal Communications Commission**, in *Re: Bentleyville Telephone Company Petition and Waiver of Sections 63.54 and 63.55 of the Commission's Rules and Application for Authority to Construct and Operate, Cable Television Facilities in its Telephone Service Area,* W-P-C-6817, on behalf of the Helicon Group, L.P. d/b/a Helicon Cablevision, filed November 2, 1995.

Before the **US District Court for the Eastern District of Tennessee**, in *Re: Richard R. Land, Individually and d/b/a The Outer Shell, and on behalf of all others similarly situated, Plaintiffs, vs. United Telephone-Southeast, Inc., Defendant*, 2-93-55, Class Action, filed June 12, 1995.

Before the **Connecticut Department of Public Utility Control**, in *Re: Application of SNET Company for approval to trial video dial tone transport and switching*, 95-03-10, on behalf of New England Cable TV Association, filed May 8, 1995, cross-examination May 12, 1995.

Before **Canadian Radio-Television and Telecommunications Commission**, in *Re: CRTC Order in Council 1994-1689*, Public Notice CRTC 1994-130 (Information Highway), filed March 10, 1995.

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C- 6958, on behalf of Hawaii Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Hawaii's Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of the California Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Florida's Section 214 Application to Provide Video Dialtone in the Pinellas County and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

Before the **Federal Communications Commission**, in *Re: GTE Virginia's Section 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6956, on behalf of Virginia Cable TV Association, filed January 17, 1995 (Reply to Amended Applications).

1994

Before the **Federal Communications Commission**, in *Re: NET's Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed December 22, 1994 (Reply to Supp. Responses).

Before the **State Corporation Commission of the State of Kansas**, in *Re: General Investigation into Competition*, 190, 492-U 94-GIMT-478-GIT, on behalf of Kansas CATV Association, filed November 14, 1994, cross-examination December 1, 1994.

Before the **Federal Communication Commission**, in *Re: Carolina Telephone – Section 214 Application to provide Video Dialtone in areas of North Carolina*, W-P-C 6999, on behalf of North Carolina Cable TV Association, filed October 20, 1994, reply November 8, 1994.

Before the **Federal Communication Commission**, in *Re: NET – Section 214 Application to provide Video Dialtone in Rhode Island and Massachusetts*, W-P-C 6982, W-P-C 6983, on behalf of New England Cable TV Association, filed September 8, 1994, reply October 3, 1994.

Before the **California Public Utilities Commission**, in *Re: Petition of GTE-California to Eliminate the Preapproval Requirement for Fiber Beyond the Feeder*, I.87-11-033, on behalf of California Bankers Clearing House, County of LA, filed August 24, 1994.

Before the **Federal Communications Commission**, in *Re: BellSouth Telecommunications Inc., Section 214 Application to provide Video Dialtone in Chamblee, GA and Dekalb County, GA*, W-P-C 6977, on behalf of Georgia Cable TV Association, filed August 5, 1994.

Before the **Federal Communications Commission**, in *Re: Bell Atlantic Telephone Companies Section 214 Application to provide Video Dialtone within their Telephone Services Areas*, W-P-C 6966, on behalf of Mid Atlantic Cable Coalition, filed July 28, 1994, reply August 22, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Hawaii – 214 Application to provide Video Dialtone in Honolulu, Hawaii*, W-P-C 6958, on behalf of Hawaii Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE California – Section 214 Application to provide Video Dialtone in Ventura County*, W-P-C 6957, on behalf of California Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Florida – 214 Application to provide Video Dialtone in the Pinellas and Pasco County, Florida areas*, W-P-C 6956, on behalf of Florida Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communication Commission**, in *Re: GTE Virginia – 214 Application to provide Video Dialtone in the Manassas, Virginia area*, W-P-C 6955, on behalf of the Virginia Cable TV Association, filed July 1, 1994, and July 29, 1994.

Before the **Federal Communications Commission**, in *Re: US WEST – Section 214 Application to provide Video Dialtone in Boise, Idaho and Salt Lake City, Utah*, W-P-C 6944-45, before the Idaho and Utah Cable TV Association, filed May 31, 1994.

Before the **Federal Communication Commission**, in *Re: US WEST – Section 214 Application to provide Video Dialtone in Portland, OR; Minneapolis, St. Paul, MN; and Denver, CO*, W-P-C 6919-22, on behalf of Minnesota & Oregon Cable TV Association, filed March 28, 1994.

Before the **Federal Communications Commission**, in *Re: Ameritech – Section 214 Application to provide Video Dialtone within areas in Illinois, Indiana, Michigan, Ohio, and Wisconsin*, W-P-C-6926-30, on behalf of Great Lakes Cable Coalition, filed March 10, 1994, reply April 4, 1994.

Before the **Federal Communications Commission**, in *Re: Pacific Bell – Section 214 Application to provide Video Dialtone in Los Angeles, Orange County, San Diego, and Southern San Francisco Bay areas*, W-P-C-6913-16, on behalf of Comcast/Cablevision Inc., filed February 11, 1994, reply March 11, 1994.

Before the **Federal Communications Commission**, in *Re: SNET – Section 214 Application to provide Video Dialtone in Connecticut*, W-P-C 6858, on behalf of New England Cable TV Association, filed January 20, 1994, reply February 23, 1994.

1993

Before the **Arkansas Public Service Commission**, in *Re: Earnings Review of Southwestern Bell Telephone Company*, 92-260-U, on behalf of Arkansas Press Association, filed September 2, 1993.

Before the **United States District Court for the Eastern District of Tennessee at Greenville**, in *Re: Cleo Stinnett, et al. Vs. BellSouth Telecommunications, Inc. d/b/a/ South Central Bell Telephone Company, Defendant*, Civil Action No 2-92-207, Class Action, cross-examination May 10, 1993, and February 10, 1994.

Before the **Federal Communications Commission**, in *Re: NJ Bell Section 214 Application to provide Video Dialtone service within Dover Township, and Ocean County, New Jersey*, W-P-C-6840, on behalf of New Jersey Cable TV Association, filed January 21, 1993.

1992

Before the **New Jersey Board of Regulatory Commissioners**, in *Re: NJ Bell Alternative Regulation*, T092030358, on behalf of NJ Cable TV Association, filed September 21, 1992.

Before the **New Hampshire Public Utilities Commission**, in *Re: Generic competition docket*, DR 90-002, on behalf of Office of the Consumer Advocate, filed May 1, 1992, reply July 10, 1992, Surrebuttal August 21, 1992.

Before the **New Jersey General assembly Transportation, Telecommunications, and Technology Committee**, *Concerning A-5063*, on behalf of NJ Cable TV Association, filed January 6, 1992.

1991

Before the **New Jersey Senate Transportation and Public Utilities Committee**, in *Re: Concerning Senate Bill S-3617*, on behalf of New Jersey Cable Television Association, filed December 10, 1991.

Before the **119th Ohio General Assembly Senate Select Committee on Telecommunications Infrastructure and Technology**, in *Re: Issues Surrounding Telecommunications Network Modernization*, on behalf of the Ohio Cable TV Association, filed March 7, 1991.

Before the **Tennessee Public Service Commission**, in *Re: Master Plan Development and TN Regulatory Reform Plan*, on behalf of TN Cable TV Association, filed February 20, 1991.

1990

Before the **Tennessee Public Service Commission**, in *Re: Earnings Investigation of South Central Bell*, 90-05953, on behalf of the TN Cable Television Association, filed September 28, 1990.

Before the **New York Public Service Commission**, in *Re: NYT Rates, 90-C-0191, on behalf of User Parties NY Clearing House Association*, filed July 13, 1990, Surrebuttal July 30, 1990.

Before the **Louisiana Public Service Commission,** in *Re: South Central Bell Bidirectional Usage Rate Service*, U-18656, on behalf of Answerphone of New Orleans, Inc., Executive Services, Inc., King Telephone Answering Service, et al, filed January 11, 1990.

1989

Before the **Georgia Public Service Commission**, in *Re: Southern Bell Tariff Revision and Bidirectional Usage Rate Service*, 3896-U, on behalf of Atlanta Journal Const./Voice Information Services Company, Inc., GA Association of Telemessaging Services, Prodigy Services, Company, Telnet Communications, Corp., filed November 28, 1989.

Before the **New York State Public Service Commission**, in *Re: NYT Co. - Rate Moratorium Extension - Fifth Stage Filing*, 28961 Fifth Stage, on behalf of User Parties NY Clearing House Association Committee of Corporate Telecommunication Users, filed October 16, 1989.

Before the **Delaware Public Service Commission**, in *Re: Diamond State Telephone Co. Rate Case*, 86-20, on behalf of DE PSC, filed June 16, 1989.

Before the **Arizona Corporation Committee**, in *Re: General Rate Case*, 86-20, on behalf of Arizona Corporation Committee, filed March 6, 1989.

1988

Before **New York State Public Service Commission**, in *Re: NYT Rate Moratorium Extension*, 28961, on behalf of Capital Cities/ ABC, Inc., AMEX Co., CBS, Inc., NBC, Inc., filed December 23, 1988.

1989

Before **Rhode Island Public Utilities Commission**, in *Re: New England Telephone*, 1475, on behalf of RI Bankers Association, filed August 11, 1987, cross-examination August 21, 1987.

Before the **New York State Public Service Commission**, in *Re: General Rate Case Subject to Competition*, 29469, on behalf of AMEX Co., Capital Cities/ ABNC, Inc., NBC, Inc., filed April 17, 1987, cross-examination May 20, 1987.

Before the **Minnesota Public Utilities Commission**, in *Re: Northwestern Bell*, P-421/ M-86-508, on behalf of MN Bus. Utilities Users Counsel, filed February 10, 1987, cross-examination March 5, 1987.

1986

Before the **Kansas Public Utilities Commission**, in *Re: Southwestern Bell*, 127, 140-U, on behalf of Boeing Military, et al., filed August 15, 1986.

1985

Before the **Washington Utilities and Transportation Commission**, in *Re: Cost of Service Issues bearing on the Regulation of Telecommunications Company*, on behalf of US Department of Energy, filed November 18, 1985 (Reply Comments).

1984

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 83-213, on behalf of Staff, ME PUC, filed February 7, 1984, cross-examination March 16, 1984.

Before the **Minnesota Public Service Commission**, in *Re: South Central Bell*, U-4415, on behalf of MS PSC, filed January 24, 1984, cross-examination February 1984.

1983

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8847, on behalf of KY PSC, filed November 28, 1983, cross-examination December 1983.

Before the **Florida Public Service Commission**, in *Re: Southern Bell Rate Case*, 820294-TP, on behalf of Florida Department of General Services, FL Ad Hoc Telecommunications Users, filed March 21, 1983, cross-examination May 5, 1983.

1982

Before the **Maine Public Utilities Commission**, in *Re: New England Telephone*, 82-142, on behalf of Staff, ME PUC, filed November 15, 1982, cross-examination December 9, 1982.

Before the **Kentucky Public Service Commission**, in *Re: South Central Bell*, 8467, on behalf of the Commonwealth of Kentucky, cross-examination August 26, 1982.

ATTACHMENT 2

	A	B	C	D	E	F
1	**CALCULATION OF MAXIMUM CONDUIT RENTAL RATE**					
2	**PSE&G - Year End 2003 FERC Data**					
3						
4						
5						
6	**I. Net Conduit Investment Per Linear Foot**					
7	Gross Conduit Investment		$347,044,433			
8	-Depreciation Reserve for Conduit		$98,675,075			
9	-Accumulated Deferred Taxes Prorated for Conduit		$133,690,867			
10	=Net Conduit Investment		$114,678,491			
11	\Duct Feet		38,133,506			
12	=Net Investment per Duct Foot		$ 3.01			
13						
14	**II. Carrying Charge Factor**					
15						
16	**Maintenance**					
17	Maintenance Expenses /		$13,582,362			
18	Gross Investment 366,367,369		$1,355,812,047			
19	-Depreciation Reserve 366,367,369		$385,497,771			
20	-Accumulated Deferred Taxes 366,367,369		$522,295,333			
21	Net Investment in 366,367,369		$448,018,944			
22	=Maintenance Carrying Charge		3.03165%			
23						
24	**Depreciation**					
25	Annual Depreciation Rate for Conduit *		2.49%			
26	Gross Investment Conduit (366)		$347,044,433			
27	/Net Investment Conduit		$114,678,491			
28	Gross/Net Adjustment		302.62%			
29	=Deprec Rate Applied to Net Conduit		7.53533%			
30						
31	**Administrative**					
32	Administrative Expenses /		$206,994,918			
33	Total Plant--Electric		$5,918,985,974			
34	-Depreciation Reserve--Electric		$1,894,169,762			
35	-Accumulated Deferred Taxes--Electric		$2,280,152,884			
36	Net ElectricPlant in Service		$1,744,663,328			
37	=Administrative Carrying Charge		11.8645%			
38						
39	**Taxes (Federal Income Taxes and Miscellaneous)**					
40	Tax Expense 408-411 /		$151,517,973			
41	Total Plant--Electric		$5,918,985,974			
42	-Depreciation Reserve--Electric		$1,894,169,762			
43	- Accumulated Deferred Taxes--Electric		$2,280,152,884			
44	Net ElectricPlant in Service		$1,744,663,328			
45	=Tax Carrying Charges		8.68465%			
46						
47	**Return**					
48	Return		11.25%			
49						
50	**Total Carrying Charge Factor**		42.37%			

	A	B	C	D	E	F
51	**CALCULATION OF MAXIMUM CONDUIT RENTAL RATE**					
52	**PSE&G - Year End 2003 FERC Data**					
53						
54						
55						
56	**III. Percentage Conduit Capacity Occupied**					
57	One/		1			
58	No. of Inner Ducts per duct		3			
59	*One/		1			
60	No. Ducts Per Conduit		1			
61	Percentage		33.33%			
62						
63	**Maximum Rate**					
64	Net Conduit Investment per Duct Foot		$3.01		See Part I	
65	*Carrying Charges		42.37%		See Part II	
66	*Occupancy Factor		33.33%		See Part III	
67	**=MAXIMUM RATE PER DUCT FOOT**		**$0.42**			

	A	B	C	D	E	F
68						
69	**DATA ENTRY AND SOURCE**				**FERC (pg,col,ln)**	
70						
71	Accumulated Deferred Taxes 281		$0		pg. 273, k, 8	
72	Accumulated Deferred Taxes 282		$869,571,398		pg. 275, k ,2	
73	Accumulated Deferred Taxes 283		$1,884,186,650		pg. 277, k, 9	
74	(Less) Accumulated Deferred Taxes 190		$473,605,164		pg. 234, c, 8	
75	Accumulated Deferred Taxes-Total Electric		$2,280,152,884		sum	
76						
77	Taxes 408.1 Taxes Other than Income Taxes		$105,471,497		pg. 115, e, 14	
78	Taxes 409.1 Federal Income Taxes		-$67,701,747		pg. 115, e, 15	
79	Taxes 409.1 Other Income Taxes		-$28,020,387		pg. 115, e, 16	
80	Taxes 410.1 Prov for Deferred Income Taxes		$189,104,336		pg. 115, e, 17	
81	(Less) Taxes 411.1 Cr. Prov Deferred Income Taxes		$47,181,010		pg. 115, e, 18	
82	Taxes 411.4 Investment Tax Credit Adj - Net		-$154,716		pg. 115, e, 19	
83	Taxes - Total Electric		$151,517,973		sum	
84						
85	Gross Investment Total Plant--Electric		$5,918,985,974		pg. 207, g, 95	
86	Gross Investment -- Distribution Plant		$4,369,571,203		pg. 207, g, 75	
87						
88	Accumulated Prov for Deprec.--Electric		$1,894,169,762		pg. 219,c,28	
89	Accumulated Prov for Deprec.--Distribution		$1,242,399,314		pg. 219,c,26	
90						
91	Gross Investment in 366		$347,044,433		pg. 207, g, 66	
92	Gross Investment in 367		$689,076,381		pg. 207, g, 65	
93	Gross Investment in 369		$319,691,233		pg. 207, g,69	
94	Gross Investment 366,367,369		$1,355,812,047		sum	
95						
96	Maintenance Expense 594		$13,582,362		pg. 322, b, 120	
97						
98	Administrative Expense 920-931		$203,955,952		pg 323, b 165	
99	Administrative Expense 935		$3,038,966		pg 323, b 167	
100	Total Administrative & General Expenses		$206,994,918		sum	
101						
102	Depreciation Reserve for 366		$98,675,075		Prorated Distrib	
103	Depreciation Reserve for 367		$195,924,951		Prorated Distrib	
104	Depreciation Reserve for 369		$90,897,745		Prorated Distrib	
105	Depreciation Reserve 366,367,369 (Prorated Distrib)		$385,497,771		sum	
106						
107	Accumulated Deferred Taxes 366		$133,690,867		Prorated Electric	
108	Accumulated Deferred Taxes 367		$265,450,789		Prorated Electric	
109	Accumulated Deferred Taxes 369		$123,153,677		Prorated Electric	
110	Accum Deferred Taxes366,367,369(Prorated Electric)		$522,295,333		sum	
111						
112	Depreciation Rate for Conduit		2.49%		pg 337, e, 25	
113						
114	Overall Rate of Return		0.1125%		FCC	
115						
116	Total Duct Feet		38,133,506		PSE&G Resp AT&T-36	
117						
118	Number of Inner duct per duct		3		AT&T, Fea Testimony	

STATE OF NEW JERSEY
OFFICE OF ADMINISTRATIVE LAW

I/M/O Verified Petition of TCG Delaware Valley, Inc. and Teleport Communications New York for an Order Requiring PSE&G to Comply with the Board's Conduit Rental Regulations	:	OAL Docket PUC 1191-06 BPU Docket No. EO05111005

REBUTTAL TESTIMONY OF PATRICIA KRAVTIN

ON BEHALF OF

TCG DELAWARE VALLEY, INC. AND TELEPORT COMMUNICATIONS NEW YORK

NOVEMBER 17, 2006

Table of Contents

Introduction and Summary

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Patricia D. Kravtin. I am an economist in private practice specializing in the analysis of telecommunications and energy regulation and markets. My business address is 57 Phillips Avenue, Swampscott, Massachusetts.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted direct pre-filed testimony on September 29, 2006 on behalf of TCG Delaware Valley, Inc. and Teleport Communications New York (collectively "AT&T").

Q. AS PART OF THAT TESTIMONY, DID YOU PROVIDE A DETAILED SUMMARY OF YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A. Yes, I did. A detailed resume summarizing my training, previous experience, and prior testimony and reports was provided as Attachment 1 to my September 29, 2006 testimony.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I was asked by counsel for AT&T to respond to the testimonies of Messrs. Jeff Makholm and Norman Chadwick submitted on behalf of PSE&G in response to my earlier testimony. Consistent with the respective contents of those testimonies, the bulk of my rebuttal testimony is directed at refuting Dr. Makholm's testimony and the conclusions, both overall and specific, presented in that testimony that are in stark disagreement with mine. For the reasons set forth in this rebuttal testimony, and based on my extensive experience in the telecommunications industry, Dr. Makholm's conclusions reflect a superficial understanding of the evolution of competition in the telecommunications industry and the pivotal role that regulation, including that governing access to utility poles and conduit, has played in helping to promote the success of competitive entry and the resultant benefits to consumers.

Q. CAN YOU PLEASE SUMMARIZE BOTH THE OVERALL AND SPECIFIC CONCLUSIONS EXPRESSED IN THE MAKHOLM TESTIMONY WITH WHICH YOU DISAGREE?

A. Yes. From an overall perspective, the Makholm testimony paints a very different view of the nature of the negotiations between PSE&G, as an incumbent electric utility with total ownership and control of distribution assets including conduit, and that of AT&T, as a telecommunications carrier without distribution assets in New Jersey seeking access to PSE&G's conduit in order to provide telecommunications services there. In Dr. Makholm's view (at 3), the agreements reached by the parties were "fairly struck, with manifest benefits to both parties," "prices are consistent with other such prices in the market," and "regulatory intervention is not called for." Dr. Makholm concludes that recalculating the conduit rental rates AT&T currently pays PSE&G under existing contracts with the lower BPU formula rate would "result in the transfer of money to AT&T… without a competitive, economic, or public policy justification."

I could not disagree more, both with Dr. Makholm's view of the bargaining relationship between PSE&G and AT&T, and his conclusion there is no "competitive, economic, or public policy justification" for requiring PSE&G to charge AT&T a rate based on the BPU formula - a formula adopted by the BPU for the express purpose of setting appropriate rates for third-party rental of utility conduit. The "industrial background" upon which Dr. Makholm's overall conclusions are based ignores the well-documented impediments faced by telecommunications providers such as AT&T over the course of the past two decades as they charted new territory and sought to establish themselves in telecommunications markets. It similarly ignores the important role regulation has played in helping to ensure telecommunications providers have access to essential facilities including utility conduit at reasonable rates, terms, and conditions.

My direct testimony provides a detailed description of the historical conditions that define and establish the presence of asymmetric bargaining power in the negotiations between PSE&G, as incumbent electric utility, and AT&T, as a telecommunications service provider without its own distribution assets in New Jersey, none of which the "industrial background" presented in the Makholm testimony substantively refutes. These historical conditions, which are described further in this rebuttal testimony, include:

- PSE&G's historical ownership of a ubiquitous system of conduit in its service territory afforded it total control of the conduit network. Prior to the passage of the Telecommunications Act of 1996, telecommunications carriers that did not own their own distribution networks had no legal right to access to PSE&G's pole and conduit assets. Concerned that utilities would have even more incentive in the new competitive environment to limit access to their pole and conduit facilities, Congress amended Section 224 of the Communications Act in 1996 (originally enacted in 1978 as the Pole Attachment Act for the benefit of the nascent cable television industry) to explicitly require mandatory access and to apply the regulated rate formula for the benefit of telecommunications providers. Even with these amendments, as this case and others like it make evident, incumbent utilities such as PSE&G continue to control terms and conditions, and ultimately access to their pole and conduit facilities. PSE&G's own witnesses support this finding. Dr. Makholm's testimony confirms a "take it or leave it" attitude on the part of PSE&G with his view that if PSE&G's rates were too high, AT&T principal "choice' was *not* to provide service in New Jersey. Mr. Chadwick's testimony references to "speed to market" as a driving force for AT&T in negotiations, thereby confirming the urgency of AT&T's need for access to PSE&G's conduit. This realistic

view of industrial history indicates a compulsion to buy on the part of AT&T and provides solid ground upon which to refute the assertion of anything close to a balanced negotiations process between PSE&G and AT&T.

- AT&T, as a telecommunications carrier without its own distribution network in New Jersey, has few if any practically viable alternatives to leasing conduit space other than from PSE&G to serve customers in New Jersey. Zoning, environmental, municipal ordinance, financial, social, esthetic, or other constraints make it impractical for third parties to construct new conduit systems on a scale or scope remotely close to that owned and controlled by the incumbent utility. These constraints have long served to effectively require cable operators and new telecommunications companies to follow the paths of existing utilities. Dr. Makholm repeatedly retorts that if PSE&G's rates were too high, AT&T had the choice of *not* providing telecommunications services in New Jersey. Such a view is wholly inconsistent with the Telecommunications Act and federal and state policy goals of promoting a competitive telecommunications industry, and if anything, underscores the few practical alternatives realistically available to AT&T in New Jersey.

- As described in my direct testimony (see Table 2), the rate PSE&G "negotiated" with AT&T is approximately 75% higher than the lowest rate identified by PSE&G as applying to third party rental of conduit space. Moreover, even based on PSE&G's own revised calculation of the BPU formula rate at $0.74, the current rate is approximately *nine* times higher than the *fully allocated cost* of attachment, including within that definition of cost a reasonable return on capital. To the extent there were viable competitive alternatives available to AT&T, PSE&G would not be in the position to price or price discriminate at this level, for what is essentially a homogenous product. Merely

citing as Dr. Makholm does to other situations where utilities or other governmental agencies in *other* jurisdictions were similarly able to garner excessively high rental rates, or to situations in New Jersey *prior* to the BPU's adoption of the regulated rate formula, does not refute the existence of monopoly power. It simply demonstrates the pervasive monopoly control of these kinds of essential distribution facilities, and the importance of regulations designed to provide fair and nondiscriminatory access to those facilities.

- The incumbent local exchange company in New Jersey, Verizon, on a much larger base of rented conduit feet, voluntarily agreed to recalculate rates charged AT&T (including those under contract) to be compliant with the BPU formula. By contrast, PSE&G has forced AT&T to pursue a costly litigation, which is itself demonstration of the absence of equal bargaining position in the negotiations between AT&T and PSE&G, and of the necessity for regulatory intervention. As noted in my direct testimony, the United States Telecommunications Association, a trade association representing communications providers including incumbent local exchange companies (ILECs), such as Verizon, who themselves are joint owners of utility conduit networks, has argued before the Federal Communications Commission that its members have "little bargaining clout" relative to the electric utility when it comes to utilization of electric utility's pole plant, and it has asked the FCC to allow ILECs to bring complaints under Section 224 if and when negotiations have failed, and to use the existing formula as the basis of determining a reasonable rate.[1] Dr. Makholm's and Mr. Chadwick's attempt to paint a picture of AT&T's historic relationship with PSE&G as totally congenial vis-à-vis Verizon and not

[1] See *In the Matter of the Petition of the United States Telecommunications Association for a Rulemaking to Amend Pole Attachment Rate Regulation and Complaint Procedures*, Petition for Rulemaking before the Federal Communications Commission, October 11, 2005.

requiring regulatory intervention, is belied by the facts, as set forth in my testimony and in that of Mr. Fea.

- The historical conditions that produced the grossly unequal bargaining position between PSE&G, as the incumbent utility, and AT&T, as a telecommunications service provider without its own distribution network, are validated by an extensive body of regulatory and public policy findings expressed by federal and state regulators and by the courts, and embodied in Section 224 of the Communications Act. It is not surprising that Dr. Makholm's testimony makes scant reference to the vast body of regulatory and legal findings on pole and conduit attachments since they run largely counter to his view of a fair market or arms-length relationship between PSE&G and AT&T. PSE&G's intransigence with regard to keeping its unregulated monopolistic rates in force is consistent, however, with the concerted and persistent, yet largely unsuccessful to date, efforts of incumbent electric utilities to challenge existing pro-competitive regulatory and legal findings to their own benefit.

In the following sections of my rebuttal testimony, I respond in more detail to the specific arguments and conclusions presented in the Makholm testimony. For sake of comparison and completeness, my rebuttal follows the structure of his testimony, which is organized according to the following topics: (1) asymmetric bargaining power; (2) common pattern for new entrants; (3) exploitative monopoly; (4) bottleneck monopoly/essential facility; (5) Lerner Index and price/cost ratios; and (6) benefits of competition. In addition, I respond to the adjustments PSE&G made to the BPU rate formula as referenced in Dr. Makholm's testimony in the discussion of price/cost ratios and presented in Mr. Chadwick's testimony. The adjustments made by PSE&G to the BPU formula involve securitization effects and occupancy, and inappropriately increase

the regulated rate by 76%, from the $0.42 figure that I calculate (see Attachment 2 to my direct testimony) to PSE&G's figure of $.74.

Asymmetric Bargaining Power

Q. DR. MAKHOLM ARGUES (AT 8-9) THAT THE CONCEPT OF ASYMMETRIC BARGAINING POWER DOES NOT APPLY TO THE RELATIONSHIP BETWEEN AT&T AND PSE&G, CITING AT&T'S SIZE AND SUCCESS IN THE MARKETPLACE, AND IN PARTICULAR, THE CHOICES AT&T HAD, INCLUDING THE ULTIMATE CHOICE OF WHETHER TO PROVIDE SERVICES IN NEW JERSEY. WHAT IS YOUR RESPONSE?

A. Dr. Makholm's arguments are at odds with the historical experience of new telecommunications carriers, including AT&T, as they sought to provide telecommunications services in competition with incumbent local exchange carriers (ILECs) in various local markets. The importance of ensuring new telecommunications carriers with access to utility pole and conduit facilities was well-recognized by Congress when it amended Section 224 of the Communications Act (in conjunction with passage of the Telecommunications Act of 1996) to provide mandatory access to telecommunications carriers in addition to cable operators. Similarly, the superior bargaining power enjoyed by incumbent electric utilities has been recognized by the FCC and by the courts.[2]

In order to compete with the ILECs in their respective local markets, new telecommunications carriers needed access to these types of local distribution facilities. As PSE&G's own witness,

[2] See for example, *Alabama Power v. FCC*, 311 F.3d 1357 (11th Cir. 2002) ("*Alabama Power*" or "*APCo*") at 1361-2: "Certain firms have historically been considered to be natural monopolies – bottleneck facilities that arise due to network effects and economies of scale….Firms in other markets frequently need access to these bottlenecks in order to compete….As the owner of these 'essential facilities,' the power companies had superior bargaining power, which spurred Congress to intervene in 1978;" *Id.* at 1363: "This change to a forced-access regime was perhaps spurred by new laws, consistent with the 1996's Act vision of competition in all sectors of the data distribution business, that gave large power companies freedom to enter the telecommunications business…Perhaps fearing that electricity companies would now have a perverse incentive to deny rivals the pole attachments they need, Congress made access mandatory; and *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001),at ¶55: "Despite Respondent's and other utilities' arguments to the contrary, there is no non-monopoly market in pole

Mr. Chadwick has testified (at 6-7), "speed to market" was of utmost importance to AT&T. This is because new telecommunications carriers, particularly "first movers" such as AT&T, faced enormous resistance from customers to shift their demand from a well-established incumbent to a new carrier with no proven track record. In order to get an initial foothold in the market, new carriers had to entice customers to switch, and to do so, they needed to be able to offer and maintain service in a timely and reliable manner that not only met, but exceeded the quality of service offered by the incumbent, and also beat out inroads by other potential new entrants. This was no easy task given the proven record of the ILECs, customers' lack of experience with alternative providers, and simple customer inertia. Even a relatively short delay in supplying service to customers could have severe impacts on the ability of a new entrant to attract and maintain customers, and many have failed over the years.

The true industrial background against which AT&T's negotiations with PSE&G for rental of the latter's conduit facilities should be evaluated is an environment of immediacy and concerns regarding initial establishment and ultimate success in the market. As discussed in my direct testimony, the claim that third party entities such as AT&T "freely negotiated" with PSE&G makes no economic sense given the utility's dominant position in the market, the lack of practical alternatives to leasing conduit, and the compulsion to buy that characterized the transaction.

As Mr. Fea confirms (direct testimony at 5), AT&T only went to PSE&G to lease conduit in instances where it had no other practical alternative. Each of the alternatives cited by Dr. Makholm (at 9) as ways for AT&T to offer service in New Jersey poses their own set of unique

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attachments. ***There are no arm's length transactions reflecting the prices paid by willing buyers and sellers for comparable pole attachments***" (emphasis added).

practical limitations, as well documented in numerous regulatory findings.[3] Contrary to Dr. Makholm's assertion, CATV providers do not generally own rights of way, but like AT&T and other telecommunications providers, must gain access to rights of way owned by electric and telecommunications utilities through a negotiation process characterized by a similar asymmetry of bargaining power. As evident by the spate of litigation brought by telecommunications carriers under Section 253 of the Telecommunications Act,[4] gaining timely access to rights of way owned by local and state authorities and under reasonable terms and conditions has proven quite difficult. Moreover, PSE&G witness Mr. Chadwick, who would possess more local knowledge of the conduit rental alternatives in New Jersey than Dr. Makholm, indicates (at 7) that he has no first-hand knowledge of conduit alternatives available to AT&T. He presents no substantive evidence rebutting Mr. Fea's testimony that AT&T looked to leasing PSE&G's conduit as a last resort.[5]

In negotiating with PSE&G for needed access to pole and conduits facilities, as a new telecommunications carrier, AT&T had the success of its entry into the New Jersey market on the line, whereas PSE&G, as a regulated utility, had little, if anything, at stake. As a regulated

[3] See, e.g., *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001), at ¶57; FCC Notice of Proposed Rulemaking and Notice of Inquiry in WT Docket NO. 99-217, Third Further Notice of Proposed Rulemaking in CC Docket No. 96-98 (NPRM/NOI), Released July 7, 1999, at ¶75, and FCC Memorandum Opinion and Order, CC Docket 98-1, FCC 99-402, In the Matter of the Petition of the State of Minnesota for a Declaratory Ruling Regarding the Effect of Section 253 on an Agreement to Install Fiber Optic Wholesale Transport Capacity on State Freeway Right-of-Way, paras. 8-14.

[4] See e.g., *TCG New York, Inc., TC Systems, Inc., And Teleport Communications D/B/A TCNY, Plaintiffs, -Against- City Of White Plains, New York*, Defendant. 99 Civ. 4419 (BDP), before the United States District Court for the Southern District of New York, 2000 U.S. Dist. LEXIS 18465, December 21, 2000, Decided; *TCG Detroit, Plaintiff-Appellant (98-2034), Plaintiff(98-2035), v. City of Dearborn*, Defendant-Appellee (98-2034),Third-Party Plaintiff-Appellant (98-2035), Ameritech Michigan, Incorporated, Third-Party Defendant-Appellee (98-2035), Nos. 98-2034/98-2035, before the United States Court Of Appeals For The Sixth Circuit; *TC Systems, Inc. and Teleport Communications-New York vs. Town of Colonie, New York*, Civil Action No. 00-CV-1972, before the United States District Court for the Northern District of New York, May 16, 2003, *NJ Payphone Association Inc. v. Town of West*, NY, 1130 F.Supp. 2d 631 (DNJ 2001),

[5] All Mr. Chadwick can say (at 7) is that "it is [his] understanding through conversation with colleagues that in some cases AT&T had alternatives."

utility, it enjoys a constitutional guarantee to a fair return on its investment. Prior to 1996, it was under no legal obligation to rent pole or conduit space, and even after 1996, as a regulated utility, PSE&G had no real incentive to offer telecommunications carriers a reasonable, cost-based rate. As a regulated utility, it faced no real risk of a pursuing a hard-line negotiating strategy since it could well afford to have the telecommunications carrier ultimately walk away from the negotiating table, or to respond to any legal or regulatory challenge by the telecommunications carrier.

The substantial divergence between PSE&G's "negotiated" rate and the BPU formula rate, combined with PSE&G's unwillingness to renegotiate its rate (in contrast to Verizon) and AT&T's need to seek regulatory relief, is itself evidence of the asymmetry in bargaining power between the two parties. If there truly was symmetry in bargaining power, if AT&T felt it had practical alternatives to leasing conduit from PSE&G, one would not expect to observe such a consistently high price/cost relationship over time, and this proceeding would not have gotten this far. If anything, Dr. Makholm's suggestion that if PSE&G's rates were too high AT&T could have simply chosen *not* to enter the New Jersey market, serves to underscore the asymmetric "take it or leave it" position PSE&G has, and continues to enjoy, in its bargaining relationship with AT&T.

Dr. Makholm wrongly assumes away the clear asymmetry of the relative bargaining positions of PSE&G and AT&T because of AT&T's decision to enter local markets in New Jersey using conduit facilities leased from PSE&G. As I discuss in my earlier testimony (at 14) and further below, it is a common pattern in the telecommunications industry for new providers to enter markets under less than desirable terms and conditions. They generally do so in order to gain a

foothold into the market, and with the hope of gaining more favorable regulatory treatment in the future.

The reason for this pattern is related to the historic need for new entrants seeking to effectively compete in local telecommunications markets to have access to essential distribution facilities controlled by incumbent utilities. Not surprisingly, the terms and conditions under which access to facilities needed by new providers to offer service were secured has often been contentious. Historically, regulation – including the establishment of the regulated rate formula for pole and conduit facilities - has played an important role in helping to ensure that access is available under terms and conditions that are reasonable to both new entrants and incumbents alike.

Even so, the regulatory process generally takes considerable time, and where "speed to market" is of the essence, new entrants often have had no practical choice other than to move forward with their business plan without benefit or resolution (favorable or otherwise) of regulatory intervention. Congress did not legislate application of the regulated rate formula to telecommunications providers until 1996, and it allowed until 2001 for implementation of the new rule, even though such providers had existed for many years. It was not until 2003 that the BPU specifically adopted the regulated rate formula for New Jersey.

Another characteristic of the telecommunications industry that would explain a new provider's entry into particular telecommunications markets, even where faced with barriers to entry of the kind and level associated with having to pay high prices for access to essential conduit facilities, is density of the market. Density of the market - and the ability to realize economies of scale and scope made possible by that density – has been a primary economic determinant of viable entry in terms of a new provider being able to effectively compete with an established incumbent.

"First movers" understood that early survival depended on entry into major markets where they could quickly realize the cost efficiencies associated with high density and high utilization.

AT&T's decision to enter local New Jersey markets despite onerous conduit rental agreements with PSE&G is fully consistent with these observed characteristics of telecommunications competition. By contrast, Dr. Makholm's comments to the effect that AT&T would *not* have chosen to enter local markets in New Jersey unless contracts with PSE&G were completely voluntary do not take in to account these particular characteristics of the telecommunications industry which have shaped entry decisions over the past couple of decades, and the fact AT&T and other new providers likely confronted similar conditions in other locales as well.

Q. HOW DO YOU RESPOND TO DR. MAKHOLM'S ARGUMENTS THAT AT&T'S SIZE AND NATIONAL STRATEGY GAVE IT BARGAINING POWER?

A. Whether or not a new telecommunications provider such as AT&T has a national, regional, or local strategy does not affect the ultimate structural conditions of that entry, and the need for access to *local* distribution plant in order to serve customers otherwise being served by the ILEC. As discussed further below in regard to application of the Department of Justice guidelines, Dr. Makholm's suggestion of a national market as constituting the relevant economic market for the provision of local telecommunications services does not make economic sense given fundamental conditions of demand and supply extant in the marketplace.

Whether or not AT&T may be able to negotiate a more favorable conduit rate with a utility elsewhere in the country or across the globe does not affect its ability to provide telecommunications service to customers in New Jersey. Dr. Makholm effectively acknowledges as much, when he suggests that if PSE&G's rates for conduit space in New Jersey are too high, AT&T could have simply chosen *not* to provide telecommunications service in

New Jersey. He did *not* suggest, and obviously it would be nonsensical to argue, that if PSE&G's conduit rental rates were too high, that AT&T could have chosen to shift its purchase of conduit space *in New Jersey* to suppliers of conduit space from locales outside New Jersey who were willing and able to shift supply of distribution conduit space from elsewhere in the nation (or the world) to New Jersey.

As to the issue of size raised by Dr. Makholm, that is another red herring. Compared with the incumbent local exchange carriers with which AT&T competed, it has historically represented a very small percentage of the local market. Whereas Teleport was founded in the mid-1980's, even as late as the early to mid 1990s, access service revenues of all alternative local service providers *combined* constituted less than 1% of ILEC access service revenues and an even smaller percentage of total revenues.[6] A comparison of other metrics, such as total capital invested and number of employees, similarly places the scale of alternative carriers at less than 1% of the incumbent LECs with which they compete.[7]

Dr. Makholm's countervailing size argument is also belied by a key real world observation mentioned in my direct testimony (at 12). Not only new entrants, but also incumbent LECs, are not large or powerful enough to bargain as equals with their electric utility counterparts when it comes to access to the latter's pole and conduit facilities. Given that the incumbent LECs have expressed a need for regulatory intervention when negotiation fails, it is truly unrealistic to suggest that AT&T as a non-incumbent provider would not.

Common Pattern for New Entrants

[6] See Economics and Technology, Inc., Hatfield Associates, *The Enduring Local Bottleneck*, February 1994, Chapter 1, p. 2.
[7] *Id*. at 3.

Q. DR. MAKHOLM ARGUES (AT 13) THAT THE COMMON PATTERN FOR NEW ENTRANTS IN THE TELECOMMUNICATIONS INDUSTRY AS DESCRIBED IN MY DIRECT TESTIMONY AND IN MY REBUTTAL TESTIMONY IN THE PRECEDING SECTION "HAS NO ECONOMIC OR REGULATORY SUPPORT." WHAT IS THE BASIS FOR HIS ARGUMENT, AND HOW DO YOU RESPOND?

A. Dr. Makholm's disagreement concerning the common pattern of entry into the telecommunications industry (i.e. new firms entering into the market under less than desirable terms with the hope of future regulatory relief) is apparently based on his knowledge of "transaction cost economics" and his own opinion that such an entry strategy would be "nonsensical" and "incomprehensible." Dr. Makholm does not present, however, any specific evidence from the telecommunications industry that directly contradicts my testimony on this point.

I do not disagree with Dr. Makholm's generic statement (at 12) that there are risks associated with "making investments at fixed locations to serve particular customers." However, I would strongly disagree, based on my own extensive experience in the telecommunications industry over the past two decades, with his conclusion that investors would never proceed with a business plan that involved uncertainty regarding regulatory relief. It is an understatement to characterize the telecommunications industry of the post-divestiture period as a very dynamic one with a highly evolving regulatory landscape.

In this context, Dr. Makholm's statement that the common pattern of entry I describe has "no economic or regulatory support" is rather incredible given the telecommunications industry is replete with such examples. Indeed, if his interpretation of transaction economics was strictly applied to the telecommunications industry, we would have observed very little, if any competitive entry, because almost any new entry scenario would have involved what Dr. Makholm would characterize as "an impossible business plan." Certainly there have been

entrants who did not receive the regulatory relief they ultimately needed to survive in the industry. But the fact of the matter is that these firms had willing investors and made the entry decision despite uncertainty regarding any future regulatory relief. Only in perfect hindsight could one say their business plan was "impossible." One such group of firms with which I am very familiar was known as the data LECs, whose business plan centered on the provision of digital subscriber line service. Of the many entrants into this business, I am aware of only one that has survived (Covad), and that was after entering and emerging from Chapter 11 bankruptcy.

On the other hand, many other entrants, facing a similar degree of uncertainty regarding potential regulatory relief, did survive, albeit in some cases, they had to wait many years for relief. But, as that relief was granted, important changes in the structure of the industry did occur and such firms were able to reach a scale or scope that allowed them to survive and grow. The long distance company, MCI, is one such company. It took roughly eighteen years from the FCC's *Specialized Common Carrier* ruling in 1971 permitting MCI to construct competitive intercity private line facilities before regulators fully implemented the equal access process in 1989 that finally allowed a level playing field for effective long distance competition to emerge. It took another four years before inward "800" services portability was implemented severing the link between a customer's telephone number and the provider of the customer's "800" service, leading the way for more effective competition for "800" calling services. It took many more years for full equal access, including presubscription, to be implemented in the market for intra-LATA toll services.[8]

[8] These and other instances are described in *The Enduring Bottleneck*, February 1994, a joint report of Economics and Technology, Inc. and Hatfield Associates, at Chapter 1.

Another example involves AT&T's own entry into the local exchange market. Founded around 1983, it was roughly four years later in 1987 that Teleport and others first sought the right to co-locate equipment and transmission facilities in ILEC central offices, and it was roughly six years from that point that the FCC ordered limited co-location in 1993. It was several more years after that before expanded interconnection, co-location, and local number portability was authorized.

The relief sought by AT&T in this proceeding is entirely consistent with the pattern of regulatory relief observed historically in the telecommunications industry. With regard to the rental rate for pole and conduit facilities specifically, there have been numerous state and federal regulatory interventions that have authorized reductions (or precluded increases) in rental rates utilities charge third parties on the basis of the regulated rate formula, well after the initial market entry of those parties.[9]

Exploitative Monopoly

Q. DR. MAKHOLM RESPONDS TO YOUR TESTIMONY THAT PSE&G IS EXPLOITING ITS MONOPOLY OVER CONDUIT BY ARGUING (AT 15-16) PSE&G IS "ACTING AS A RESPONSIBLE PUBLIC SERVICE PROVIDER WITH RESPECT TO THE PRICES IT NEGOTIATED UNDER CONTRACT." WHAT IS YOUR RESPONSE?

A. The fact that PSE&G is a regulated utility, subject to the "prospect of disallowances due to imprudent procurement or facilities management" does not in any way preclude PSE&G's exploitation of its monopoly power with respect to conduit space. Regulatory history is replete with cases where incumbent utilities with control over access to essential facilities have sought to exploit their monopoly power. If anything, being a regulated utility helps insulate PSE&G and other electric utilities from the consequences of their asymmetric bargaining position. They have constitutional guarantees to recover costs of their facilities from ratepayers, they are insulated

from competitive pressures unlike AT&T, and they have ratepayer-funded resources at their disposal to defend their actions in any litigation brought by third party renters.

The principles of arms-length bargaining in wholesale procurement with respect to PSE&G's *purchase* of wholesale power to which Makholm refers (p15) are simply not applicable to the conduit space rental negotiation at issue in this proceeding. First, the basic conditions (first and foremost, the existence of a non-monopoly market for conduit space) required for arms-length negotiations are not present. Two, until the recent BPU rules governing conduit rental, there was no regulatory standard in place in New Jersey that could provide discipline with respect to the rate PSE&G attempted to charge third party renters of conduit space. Contrary to Dr. Makholm's assertion, there is no direct or even indirect mechanism by which the "prospect of disallowance due to imprudent procurement or facilities management" would provide the needed discipline.

Dr. Makholm conveniently ignores the most automatic regulatory mechanism available to discipline the rate PSE&G charges third party renters of conduit space. It is the regulated rate formula for conduit space developed over the years by the Federal Communications Commission, ratified by Congress in Section 224 of the Communications Act, and adopted by the BPU in 2003 for application in New Jersey. It is indeed ironic that Dr. Makholm cites to the regulatory status of PSE&G as implicitly requiring PS&EG to negotiate in good faith, but is adamantly opposed to the notion that his client adhere to the outcome of the BPU rate formula.

The BPU rate formula that Dr. Makholm opposes has withstood the test of time and has been subject to considerable regulatory scrutiny both at the national level and here in New Jersey. The

[9] See, e.g., New York State Public Service Commission Case No. 98-C-1357**,** *Re: Proceeding on Motion of the*

formula was specifically designed to produce a "just and reasonable rate," to provide "fair and nondiscriminatory access…while safeguarding the interests of the owners of these facilities," and to apply "when the parties fail to resolve a dispute."[10] There is clear evidence that the price negotiated between PSE&G and AT&T is not a "mutually agreeable fair price." One is the fact that AT&T has had to bring its challenge of the price before the BPU. Second is the fact that the "voluntarily" negotiated price ($6.44) exceeds the just and reasonable rate ($0.42) established by the BPU rate formula by some 1400%.

Dr. Makholm himself acknowledges (at 16) that we cannot know how PSE&G's revenue requirement was determined, and therefore there is no known linkage between the rates PSE&G charges AT&T for conduit space and the rates it charges electric distribution customers. PSE&G was asked specific interrogatories on this subject, but refused to provide responses.[11] If we can't know how PSE&G's current revenue requirement was determined, or ascertain how, when, or if its revenue requirement would change if conduit rental rates charged AT&T were reduced, then it is not credible to say that a reduction in conduit rental revenue would ultimately harm electric distribution customers.

While no harm to electric distribution customers can be demonstrated, consumers in New Jersey stand to benefit from a reduction in conduit rental rates to AT&T. As discussed in my direct testimony (at 18-20) and further below, because PSE&G's customers are also consumers of telecommunications services, they stand to benefit as result of the increased telecommunications competition that lower conduit space rental rates will ultimately produce. In addition, consumers stand to benefit because increased telecommunications competition helps stimulate overall

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Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements.
[10] FCC Report and Order, CS Docket No. 97-151, FCC 98-20, released February 6, 1996, at paras. 2, 6.

growth for the state economy. These are the very notions embodied in Section 224 of the Communications Act (the intent of which is "to promote competition by ensuring the availability of access to new communications entrants"[12]) and by extension, in the BPU's own regulations governing conduit rental rates.

Q. DR. MAKHOLM FURTHER ASSERTS (AT 16-17) THAT NO FINDING CAN BE MADE THAT PSE&G IS EXERCISING MONOPOLY POWER OVER CONDUIT SPACE, BECAUSE YOU HAVE NOT DEFINED THE RELEVANT MARKET OR DEMONSTRATED THE PRESENCE OF BARRIERS TO ENTRY. WHAT IS YOUR RESPONSE?

A. First, Dr. Makholm is mistaken in his assertion (at 16) that "third-party use of conduits has none of the structural barriers to entry that define, for example, electricity transmission or distribution businesses (the natural monopolies)." As explained further below, PSE&G's control over third-party use of conduits in its service territory possesses key defining attributes and conditions associated with structural barriers to entry, and my direct testimony (at 9-18) addresses these in some detail.

As established in the industrial organization literature, barriers to entry affect the ease with which firms can enter (or exit) the market and compete with the incumbent firm(s) thereby constraining the incumbent's market power. In his pioneering work on barriers to entry, economist Joe Bain identified three specific types or sources of structural entry barriers: absolute cost advantages of established firms (or the equivalent, absolute cost disadvantages of entrants), product differentiation advantages of established firms vis-à-vis entrants, and significant economies of large-scale.[13]

[11] See PSE&G response to AT&T- 19 and 20
[12] FCC Report and Order, CS Docket No. 97-151, FCC 98-20, released February 6, 1996, at para. 5.
[13] Joe S. Bain, *Barriers to New Competition*, Harvard University Press (1965), at pp. 15-16.

Further clarifying the concept of "absolute cost advantage," Bain described a number of "typical circumstances giving rise to this category of entry barrier" to include:

> (1) control of production techniques… Such control may permit exclusion of entrants from access to optimal techniques or alternatively the levying of a discriminatory royalty charge for their use;
>
> (2) imperfections in the markets for hired factors of production… which allow lower buying prices to established firms; alternatively ownership or control of strategic factor supplies (e.g., resources) by established firms, which permits either exclusion of entrants from such supplies, driving entrants to use inferior supplies, or discriminatory pricing of supplies to them.
>
> (3) Significant limitations of the supplies of productive factors… relative to the demands of an efficient entrant firm. Then an increment to entry will perceptibly increase factor prices.
>
> (4) Money-market conditions imposing higher interest rates upon potential entrants than upon established firms.[14]

As can be seen, a number of these described barriers (control of production techniques, discriminatory pricing, limitations of supplies, increased factor prices) have direct applicability to PSE&G's provision of conduit space to AT&T.

Bain also considered governmental restrictions as barriers to entry.[15] Such a list of government-related entry barriers would include franchise requirements generally, easements or right-of-way, tariffs, pre-qualification financial requirements, or other relatively high start-up costs imposed by a governmental authority.

In this instance, the kinds of restrictions imposed by PSE&G (e.g., those due to its control of access to conduit space in New Jersey and its ability to price that access at levels far in excess of the economic cost) have the same effect as the kinds of restrictions imposed either by a

[14] *Id*., pp. 15-16.

governmental authority or by an established firm in the industry and that would be prohibited under the Telecommunications Act.

The linkage between the control of essential facilities by utilities and the resultant creation of barriers to entry in other markets for firms who need access to these facilities has been well recognized by federal and state policymakers over the years.[16] The very fact that Congress, the FCC, state regulatory authorities (including the BPU), and the courts have seen fit to establish and/or endorse application of a regulated rate formula for third party rental of pole and conduit assets itself gives testament to the concerns regarding the monopolistic exploitation of these types of facilities by incumbent utilities such as PSE&G.

Q. WHAT ABOUT DR. MAKHOLM'S SPECIFIC ALLEGATION YOU HAVE NOT DEFINED THE RELEVANT MARKET AND ITS NEXUS TO BARRIERS TO ENTRY?

A. While my testimony does not present a formal market definition analysis, such as would be required for an antitrust case or Department of Justice (DOJ) merger investigation, clearly implicit in the analysis presented in my testimony is the concept of a highly localized geographic market. This concept reflects underlying structural conditions of supply and demand and is consistent with the nature of competition (intra- v. inter-LATA) that was permitted, and that ultimately emerged pursuant to the MFJ and the Telecommunications Act of 1996.[17]

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[15] W.Kip Viscusi, John M. Vernon, and Joseph E. Harrington, *Economics of Regulation and Antitrust*, Second Edition, (the MIT Press, Cambridge, Massachusetts: 1995), p. 158-9.

[16] See, e.g., *Alabama Power v. FCC*, 311 F.3d 1357 (11th Cir. 2002) ("*Alabama Power*" or "*APCo*") at 1361-62: "Certain firms have historically been considered to be natural monopolies – bottleneck facilities that arise due to network effects and economies of scale. Such firms have historically included electric utilities, local telephone companies, and oil pipelines...Firms in other markets frequently need access to these bottlenecks in order to compete."

[17] Under the terms of the Modification of Final Judgment (MFJ) of 1984 which split up the Bell System into local and long distance companies, distinct local geographic markets referred to as local access transport areas (LATAs) were defined. The nature of competition that was permitted, and ultimately that developed in the industry, as

Using the same DOJ framework that Dr. Makholm himself cites, and which I have used quite extensively in my own analysis of telecommunications markets, the relevant economic market is defined by performing a hypothetical price elevation test as follows. Beginning with the most narrow of market definition possibilities, the market is expanded to include those products or locations ("i.e., "next best substitutes") that could make significant sales to customers of products and locations previously included, in response to a significant and non-transitory increase in price (typically assumed at 5%).[18]

In this case, the evidence is clear that AT&T has not shifted its demand for conduit space in New Jersey away from PSE&G despite monopolistically high rental rates, nor have other suppliers from outside Jersey been able to compete with PSE&G and bid the latter's prices down toward the competitive level. If the relevant market for evaluating the PSE&G contracts was truly nationwide or worldwide, as Dr. Makholm conjectures (at 17), it would not be possible for PSE&G to be able to charge such high rates because, in the absence of high barriers to entry, demand and supply shifts would occur such that PSE&G would not be able to profitably sustain such rates over such a long period of time.

Q. DR. MAKHOLM ASSERTS (AT 18) THE PRICES CHARGED UNDER PSE&G'S CONDUIT RENTAL CONTRACTS ARE "REASONABLE AND COMPARABLE TO THAT FOUND IN OTHE JURISDICTIONS." WHAT IS YOUR RESPONSE?

A. As a threshold matter, Dr. Makholm explicitly acknowledges (at 18) "[t]here is no open market for conduit rental." In doing so, he confirms my assessment and effectively negates the validity of the price comparisons presented in his rebuttal testimony. As discussed in my direct testimony (at 12-13), as established in both the economics and appraisal literature, comparisons

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between LATAs (inter-LATA) versus *within* LATAs (intra-LATA), was distinctly different from both an economic and regulatory public policy perspective.

of prevailing prices or comparable sales benchmarks only apply where there exist a fair or open marketplace, and where neither party is under undue pressure to transact.

In this context, Dr. Makholm's comparison of PSE&G's conduit rental rates to those of other electric utilities or other entities who have similar monopoly control over conduit assets and have been able to similarly price at excessively high rates proves nothing other than just that. As discussed in my direct testimony, unregulated monopoly rates do not provide proper fair market benchmarks.

With regard to the specific price comparisons provided by Dr. Makholm in JDM-2, there is not sufficient information provided which would permit a meaningful evaluation of their comparability to the rates PSE&G currently charges AT&T. For example, Dr. Makholm provides no information concerning the nature of the agreements and negotiations between the parties, the terms and conditions underlying the use of the right-of-way, the degree of exclusivity and control granted to the lessee, or the manner in which the "equivalent" rates shown were derived to begin.

Even so, the one comparison that would appear, at least superficially, to be most comparable to PSE&G – the four companies (presumably electric utilities, but even that basic information is not identified) providing 4"diameter space in conduit – shows a rate that is only about 1/3 of that PSE&G currently charges AT&T. Most importantly, in all but the previously mentioned example, the contracts listed on JDM-2 were all entered into *prior* to passage of the Telecommunications Act, and the amendments to Section 224 specifically mandating telecommunications carrier access to essential utility distribution infrastructure including

[18] U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines (Washington,

conduit. Even in the one case signed after passage of the Telecommunications Act, that contract was signed *prior* to the implementation of the regulated rate formula applicable to telecommunications carriers pursuant to the amended provisions of Section 224.

Neither can any reliable conclusions be drawn from the comparisons Dr. Makholm presents in Table 1. That table compares the ratio of aggregate "other revenue" (booked to FERC Form 1 Lines 454 and 456) to total revenues as between PSE&G, "Border States," and "Northeast-US" utilities. Dr. Makholm asserts (at 19) this comparison "provides an indication that PSE&G's revenues from conduit rental are not excessive relative to its peers." However, Dr. Makholm himself acknowledges the data presented in Table 1 "is not an exact comparison, since the electric utilities in the sample may have other properties besides poles and conduit that earn rentals and may account for revenues across the FERC Form 1 differently." Dr. Makholm's admission is an understatement to say the least. The comparison in Table 1 is truly to an "apples to oranges" comparison, not only because it does not isolate pole/conduit income from "other electric revenues," but because it does not normalize the data for key differences among utilities as would be common practice in a benchmarking analysis. These include, those pointed out by Dr. Makholm himself, i.e., differences in reporting and rental properties other than pole and conduit, as well as other systematic differences between utilities such as size, customer base, rate structure, regional economic conditions, and so forth.

Bottleneck Monopoly/Essential Facility

Q. DR. MAKHOLM ASSERTS YOU HAVE OVERLOOKED THREE DISTINCTIONS IN CHARACTERIZING POLES AND CONDUITS AS ESSENTIAL FACILITIES: (1) THE ROLE OF THE FCC'S JURISDICTION OVER POLE ATTACHMENTS; (2) THE RELATIONSHIP BETWEEN ELECTRIC UTILITIES AND CLECS; AND (3)

April 2, 1992), www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html.

THE LACK OF PARALLEL BETWEEN COMPETITIVE TELECOMMUNICATIONS COMPANIES AND CABLE OPERATORS. DO ANY OF THESE DISTINCTIONS AFFECT YOUR FINDING THAT PSE&G'S CONDUITS ARE ESSENTIAL FACILITIES?

A. No, they do not. The distinctions Dr. Makholm attempts to make here are distinctions that simply don't make much of a difference to the core of my argument that PSE&G's conduits are essential facilities. With regard to the role of the FCC, for example, it is true that the FCC "encourages parties to negotiate the rates, terms, and conditions of pole attachment agreements."[19] However, while parties are encouraged to negotiate, this is not to say, as Dr. Makholm asserts that "Congress never intended the rate making formula to supersede negotiated contracts." As summarized by the FCC in adopting rules that in its own words "implement the plain language of Section 224," "[t]hat section provides that the regulations promulgated will apply 'when the parties fail to resolve a dispute over such charges'" or when "good faith negotiations fail."[20]

In addition to the pursuit of this litigation, and the positions expressed by AT&T in the course of this litigation and the negotiations leading up to it, I'm not sure what else Dr. Makholm would require to demonstrate a dispute over PSE&G's charges, or the failure of "good faith" negotiations. In addition, while the FCC encourages the parties to negotiate consistent with Section 224, the FCC notes its rules are to serve as "backdrop to such negotiations."[21] In this context, the BPU's rate formula, itself based on the FCC rules governing poles and conduit, provide an important benchmark against which to judge the just and reasonableness of any "voluntarily negotiated price, and the basis for claiming a failure of "good faith" negotiations. Given the "voluntarily" negotiated price between PSE&G and AT&T of $6.44 exceeds rate the

[19] FCC Report and Order, CS Docket No. 97-151, FCC 98-20, released February 6, 1996, at ¶9.
[20] *Id.*
[21] *Id.*

$0.42 established by the BPU rate formula by some 1400%, the basis of a dispute between the parties as well as the failure of "good faith" negotiations is quite evident.

Q. WHAT ABOUT THE SECOND DISTINCTION IDENTIFIED BY DR. MAKHOLM, I.E., HIS CLAIM THAT ELECTRIC UTILITIES DO NOT COMPETE WITH CLECS?

A. Dr. Makholm's point about the non-competing relationship between electric utilities and CLECs is totally off the mark. It is not the relationship between the *regulated electric distribution* business and CLECs that Congress was concerned with when it amended Section 224 of the Communications Act to require utilities, including electric, to grant new telecommunications carriers mandatory access to their pole and conduit facilities. Rather, it is the relationship between *new, and generally unregulated, telecommunications ventures* of electric utilities and/or their affiliates anticipated to emerge in the post-Act environment that the rules were designed to address. Whether PSE&G is currently engaged in a telecommunications venture in direct competition with a CLEC is not important so much as the potential for PSE&G and/or an affiliate to be engaged in such an activity in the future. The latter condition, as much as the former, creates an increased incentive on the part of the utility to restrict access to its poles, conduits, and rights-of-way and/or to charge third-party attachers excessive rates.

The growing prospect of competition among telecommunications providers and electric utilities is not theoretical conjecture. As anticipated by Congress, many electric utilities became involved in telecommunications ventures in the post-Act period. Even more to the point, those ventures generally took advantage of the rights-of-ways used by their affiliated electric distribution utilities. Ironically, Williams, one of a few CLECs Dr. Makholm cites to in his testimony (at 22) as having "developed a network of fiber optics in New Jersey using sources other than PSE&G for conduit access and rights of way" was affiliated with one such consortium of electric utilities.

Furthermore, the additional distinction Dr. Makholm seeks to establish between PSE&G, as an electric distribution utility having no direct telecommunications business, and Verizon, as an incumbent telecommunications provider whose core business is directly threatened by CLEC entry, is belied by the facts in this case. Mr. Fea has testified (at 5) AT&T generally received more favorable terms from Verizon, and rents far more conduit space from Verizon than from PSE&G. Dr. Makholm's assertion is even more directly refuted by the fact that Verizon, unlike PSE&G, voluntarily agreed to lower AT&T's conduit rental rates to the BPU regulated rate, including those rates still under contract.

Q. WHAT IS YOUR ASSESSMENT OF THE THIRD DISTINCTION IDENTIFIED BY DR. MAKHOLM, I.E., HIS CLAIM OF A LACK OF PARALLEL BETWEEN CLECS AND CABLE OPERATORS?

A. This distinction, like the other two, has little merit in terms of negating the essential facilities aspect of AT&T's need for access to PSE&G's conduit. There are differences in the nature and economics of cable operators, and cable operators generally serve an entire service territory, whereas CLECs do not necessarily do so. However, to the extent a CLEC would be effectively prohibited from providing telecommunications service without access to utility conduit, the differences between CLECs and cable operators are irrelevant in terms of the fundamental goals and objectives of the Telecommunications Act. As mentioned above, AT&T witness Fea has testified that use of PSE&G conduit was generally relied upon as last resort for providing service in New Jersey, meaning that if AT&T had other practically viable alternatives to using PSE&G's conduit, it would have availed itself of those alternatives.

Once again, Dr. Makholm (at 22) makes reference to AT&T's "choice not to expand into the market made available by PSE&G's conduit." As I have responded before, his "take it or leave it" philosophy is at direct odds with national telecommunications policy as embodied in the

Telecommunications Act and Section 224 of the Communications Act. As described by the FCC in the following citation, the Act and Section 224 sought to expand competitive entry into the local exchange market by ensuring new entrants access to essential local distribution facilities they "*must use in order to reach customers:"*

> The purpose of Section 224 of the Communications Act is to ensure the deployment of communications networks and the development of competition are not impeded by private ownership and control of scarce infrastructure and rights-of-way that many communications providers must use in order to reach customers. The rules we adopt in this *Order* further the pro-competitive goals of Section 224 and the 1996 Act by giving incumbents and new entrants in the telecommunications market fair and nondiscriminatory access to poles and other facilities, while safeguarding the interests of the owners of those facilities.[22]

The FCC further noted, that "[a]s amended by the 1996 Act, Section 224 defines a utility as one 'who is a local exchange carrier or an electric, gas, water, steam or other public utility and who owns or controls poles, duct, conduit or rights-of-way used, in whole or in part, for wire communications.'" Referring specifically to an ILEC, but in the context of its definition as a "utility," the FCC noted it "must grant other telecommunications carriers and cable operators access to its poles….*This is consistent with Congress' intent that Section 224 promote competition by ensuring the availability of access to new telecommunications services.*[23]

Finally, referring specifically to the rules it adopted to apply Section 224 to new telecommunications providers in addition to cable operators, the FCC concluded:

> Based on the Commission's history of successful implementation and enforcement of rules governing attachments use to provide cable service, we believe the new rules we adopt today will foster competition in the provision of communications services while guaranteeing fair compensation for the utilities that own the infrastructure *upon which such competition depends*.[24]

[22] *Id.* at ¶2.
[23] *Id.* at ¶5, *emphasis added.*
[24] *Id*. at ¶ 7, *emphasis added.*

As these cited passages make clear, neither Section 224 nor the FCC makes a distinction in terms of the necessity or general applicability of the rules governing access to essential utility infrastructure to telecommunications providers vis-à-vis cable operators, according to the number of customers reached by the respective entities, the architecture of their network, or otherwise.

In this section Dr. Makholm once again mentions alternatives to leasing PSE&G's conduit that are generically available to AT&T as well as what he views to be an enigma of a competitive telecommunications market with a dependency on utility-controlled bottleneck facilities. I have responded to these points earlier in this rebuttal testimony and will not repeat those discussions here. I would reiterate, however, that his discussion of alternatives to AT&T's use of PSE&G conduit is generic versus New Jersey specific and does not effectively counter AT&T's position that it used PSE&G conduit as a last resort. Also, what Dr. Makholm presents to be the enigma of a competitive telecommunications market in New Jersey, I have established as a common pattern in the telecommunications industry.

Lerner Index and Price/Cost Ratios

Q. IN HIS TESTIMONY, DR. MAKHOLM ACKNOWLEDGES THE LERNER INDEX IS AN INDICATOR OF MONOPOLY POWER, BUT ASSERTS IT IS NOT PROPERLY APPLIED IN THIS CASE, BECAUSE PSE&G IS A REGULATED UTILITY WITH HIGH FIXED COSTS AND WHERE AVERAGE COSTS CAN BE MULTIPLES OF MARGINAL COST? DO YOU AGREE?

A. No, I do not. As with any theoretically-derived measurement, there are factors the analyst needs to take into account when applying that measure to real-world situations. The authors of the Lerner Index provide numerous cautions regarding application of the index, and one of those

does concern use of the index in industries where there exist high fixed costs.[25] However, the concern expressed by the authors involves the interpretation of a relatively high index measure based on the marginal cost standard. In my application of the Lerner Index to PSE&G, the cost standard I am measuring PSE&G's rate against is the *higher fully allocated cost* standard described in Section 224(d), which includes a fair and reasonable return on investment and a fair and reasonable portion of fixed cost. As widely acknowledged by the FCC and the courts, the regulated rate formula produces a rate that is "much more than marginal cost."[26]

In any event, the Lerner Index is certainly not the sole basis upon which I conclude PSE&G possesses market power with regard to conduit. I present the Lerner Index as a widely-accepted quantitative measure that corroborates other quantitative and qualitative evidence presented in my testimony, all of which demonstrate PSE&G's monopoly control over conduit space. One thing the authors of the Lerner Index, Dr. Makholm, and I all agree on, is that the application of any summary measure of market power should take into a fuller evaluation of the industry structure including conditions of entry. Based on this accepted standard, the analysis presented in my testimony in this proceeding is based on a full and substantive understanding and consideration of the structure of the industry and the conditions surrounding utility provision of pole and conduit space to third-party renters, based on my extensive involvement in matters concerning regulated industries, and pole and conduit attachments in particular.

Q. DR. MAKHOLM CLAIMS THE PRICE/COST RATIOS YOU PRESENT IN YOUR DIRECT TESTIMONY ARE OVERSTATED BECAUSE THE BPU FORMULA RATE

[25] William M. Landes and Richard A. Posner, "Market Power in Antitrust Cases," Harvard Law Review, Vol. 94, March 1981, No. 5, at 957.

[26] As recognized by the Eleventh Circuit court in the recent APCO case concerning pole attachments, but the same basic formula applies to the pricing of conduit: …the fact [is] that much more than marginal cost is paid under the Cable Rate. See *Alabama Power*, 311 F.3d at 1363, 1369.

YOU CALCULATE IS HIGHER THAN THE RATE CALCULATED BY PSE&G? DO YOU AGREE?

A. No, I do not. For the reasons I discuss in the following section of my rebuttal, the two adjustments PSE&G makes to the BPU formula are not justified. My calculation of the BPU formula rate adheres to the guidelines established by the BPU and consistent with calculations I have performed many times, whereas PSE&G's adjustments would seem to be results-driven, i.e., designed to produce a higher rate.

Moreover, as shown in Table 1 below, even if one substitutes the higher formula rate PSE&G advocates, the price/cost relationship remains very high at close to a 9:1 ratio, and a Lerner Index of .885 (as compared with .936 using my BPU formula rate calculation).

Table 1
(Based on 2003 Data)

	$/ Conduit Foot	**Price/Cost**	**Lerner Index = (Price-Cost)/Price**
Price charged AT&T: PSE&G Rental Rate	$6.44		
PSE&G Cost: BPU Formula Rate per Att. 2 to Direct Testimony	$0.42	15.33	0.936
PSE&G Cost: PSE&G-calculated Formula Rate	$0.74	8.70	0.885

Q. DO YOU HAVE ANY OTHER COMMENT PERTAINING TO MEASURES OF PSE&G'S MARKET POWER?

A. Yes. As I mentioned above, the BPU formula rate I have calculated includes a fair and reasonable return on investment of 11.25%, which is the default rate used by the FCC and state jurisdictions for many years. In many instances, where there is a more recent state regulatory proceeding, the specific allowed rate of return is utilized, and in my experience, that state-

specific result is typically lower consistent with trends in cost of capital. One can calculate the overall rate of return that would be required under the BPU rate formula to produce either PSE&G's adjusted formula rate or PSE&G's existing contract rate. These calculations are presented in Table 2 below. These calculations give an idea of the effect of PSE&G's adjustments which imply a 43% overall return, and the supra-normal return of 600% embodied in the PSE&G contract rate, respectively.

Table 2
(Based on 2003 Data)

	$/ Conduit Foot	**Rate of Return**
PSE&G Cost: BPU Formula Rate per Att. 2 to Direct Testimony	$0.42	11.25%
PSE&G Cost: PSE&G-calculated Formula Rate	$0.74	43.00%
Price charged AT&T: PSE&G Contract Rate	$6.44	600.00%

Benefits of Competition

Q. IN THE FINAL SECTION OF HIS TESTIMONY, DR. MAKHOLM CHALLENGES YOUR POSITION THAT THE PUBLIC POLICY GOALS OF COMPETITION IN THE TELECOMMUNICATIONS INDUSTRY WOULD BE WELL SERVED BY REGULATORY INTERVENTION BY THE BPU IN THIS CASE? WHAT IS YOUR RESPONSE?

A. I have already addressed the basis for my position on this point earlier in this testimony, and I will not repeat that discussion here. I will reiterate two points. First, my position there exists an important nexus between the pro-competitive goals of Section 224 and the 1996 Act, and regulations to ensure new telecommunications providers have fair and nondiscriminatory access

to poles, conduit, and other facilities owned and controlled by incumbent utilities, is fully consistent with the findings of the FCC and other regulatory agencies, including the BPU, whose responsibility it is to protect and promote the public interest, while balancing the interests of the utilities who own these facilities and the ratepayers they serve.

Second, my testimony does not endorse, as Dr. Makholm alleges (at 27) giving "special preferences or protections to firms like TCG in newly open market." To the contrary, my testimony endorses providing firms such as AT&T with the same general protections that Congress, the FCC, and state regulatory agencies including the BPU, have deemed necessary and appropriate in order to promote the important public policy goals of competition in the telecommunications industry.

PSE&G Adjustments to BPU Rate Formula

Q. IN HIS DISCUSSION OF PRICE/COST RATIOS, DR. MAKHOLM IDENTIFIES TWO ADJUSTMENTS TO YOUR CALCULATION OF THE BPU'S REGULATED RATE FORMULA, FURTHER DISCUSSED IN MR. CHADWICK'S TESTIMONY. ARE THESE ADJUSTMENTS APPROPRIATE?

A. No, they are not. As mentioned above, PSE&G's adjustments – one to account for "securitization effects" in the deferred tax accounts, and the other to adjust the percentage of conduit capacity attributed to AT&T - are not justified, and in my opinion, appear to be results-driven, i.e., designed to produce a higher rate.

Q. COULD YOU PLEASE EXPLAIN THE SECURITZATION ADJUSTMENT TO DEFERRED TAXES THAT PSE&G MADE AND THE REASONS WHY YOU BELIEVE THIS PARTICULAR ADJUSTMENT IS NOT APPROPRIATE?

A. The securitization adjustment included in PSE&G's calculation of the formula rate is not appropriate for several reasons. PSE&G's stated rationale for removing the $1.4-million in accumulated deferred taxes booked to FERC Account 283 is that those dollars related to taxes

associated with the roughly $4-billion in stranded assets that the Company was allowed to securitize as a regulatory asset over time.[27] PSE&G argues that "[s]ince the $1.4-million is unrelated to electric distribution plant (or distribution operations), it must be excluded from the conduit formula."[28] PSE&G further argues that "[l]eaving it in would grossly overallocate deferred taxes to conduit and understate the true cost we are tying to calculate."[29] I disagree with the logic underlying PSE&G's securitization adjustment for a number of reasons.

The essence of PSE&G's argument that the $1.4-million should be removed from FERC Account 283 is because it does not relate to *distribution* plant. PSE&G's argument is not valid, however, because unlike depreciation, accumulated deferred taxes is *not* prorated to conduit on the basis of distribution plant. As explained above, accumulated deferred taxes is prorated to conduit on the basis of total *electric* plant. Because accumulated deferred tax expenses are prorated to conduit plant on the basis of the ratio of conduit plant to total electric plant, the appropriate level of aggregation for accumulated deferred tax-related expenses is supposed to be at the level of total electric plant – not distribution plant.

If it is truly PSE&G's intention to isolate accumulated deferred tax expenses on a more granular level, and specifically at the level of distribution plant, then to do it right, PSE&G would also have to correspondingly change the basis used to prorate that expense to conduit plant, namely from total electric plant to distribution plant. It did not do that. When one is prorating expenses on the basis of relative net investment, as is the case with the BPU formula, it is incorrect to increase the level of granularity of the expense, without a corresponding change to the level of granularity of the net investment used to prorate the expense. To be most accurate and avoid

[27] PSE&G Response to AT&T-32. See also Makholm at 24, and Chadwick at 12.
[28] *Id.*

self-serving manipulation of the formula, the two components involved in the proration should be consistent.

As a general proposition, and as is the case here, when one changes the two components of the calculation consistently, there are offsetting effects so that the net effect of changing the basis of the proration is mitigated. The accumulated deferred tax expense associated with distribution plant only as determined by PSE&G is *smaller* than the corresponding expense associated with total electric plant. However, the *ratio* of conduit plant to distribution plant used to *prorate* the expense is *larger* than the ratio of conduit plant to total electric plant. PSE&G has adjusted the one component, i.e., the expense, that works to its benefit (i.e., results in a higher maximum allowable rate), but has ignored the other component, i.e., the prorating of that expense, that would work to offset that benefit. PSE&G should not be allowed to pick and choose in this manner.

Q. BASED ON WHAT YOU'VE JUST DESCRIBED, COULDN'T ONE MITIGATE PSE&G'S ERROR BY PRORATING THE ADJUSTED ACCUMULATED DEFERRED TAXES TO CONDUIT ON THE BASIS OF DISTRIBUTION PLANT, RATHER THAN NOT INCLUDING A SECURITIZATION ADJUSTMENT AS YOU HAVE DONE?

A. Seemingly, one could correct PSE&G's error by prorating the adjusted accumulated deferred taxes to conduit plant on the basis of distribution plant instead of electric plant to be more consistent with the rationale offered by PSE&G in support of its securitization adjustment to accumulated deferred tax expenses. However, there are a number of problems with doing so.

Once one starts to make *selective* adjustments to the FERC Form 1 uniform reporting system, one starts to dilute the benefits of using the BPU formula approach. Indeed, one of the prime advantages of using the BPU approach is that it relies on publicly available information. This

[29] *Id.*

information is reported in a uniform reporting system available to all parties to the transaction and is so straightforward that it can be updated annually without agency intervention. This allows each year's costs to be substituted for those in place during the prior year, thus precluding the need for an extended rate case.

In this manner, the BPU formula is a fair and efficient self-adjusting formula, where new rates are based on the latest year-end actual publicly reported costs, and rates can be brought current automatically, with a minimum of private, administrative effort, and no regulatory involvement. Over the years, federal and state regulators have found the benefits of using such a clear-cut approach outweighs any potential increase in accuracy such as might result from further tinkering with the accounts specified in the formula to include or exclude every possible scintilla of cost that may or may not be causally related to poles or conduit. As noted above, the BPU formula already provides for recovery of much more than the marginal costs of attachment.

By its very nature, the use of the prorating method to allocate costs - which results from the fact it is not practical from an operational or cost perspective to require the utility to track all expenses at the level of individual plant accounts - assumes a less than perfect causal relationship. But there is a general balancing, or tradeoff, inherent in a formulaic approach that relies on a uniform reporting system. In certain instances, prorated expenses may be over-allocated to conduit plant vis-a-vis to the true (unknown) economic cost, while in others, prorated expenses may be under-allocated to conduit plant vis-a-vis the true economic cost. The balance is destroyed, however, once selective adjustments are allowed, since there is a natural presumption that the party proposing the selective adjustment is doing so because it is in that party’s interest to do so.

Allowing selective adjustments to the BPU formula serves to introduce complexity, uncertainty, and open up the process to litigation each year the formula rate is updated. Once one starts tinkering with the formula to exclude certain line items from an aggregate account, such as PSE&G has done selectively with FERC Account 283 in the case of its securitization adjustment, one opens up a Pandora's Box. This is because in order to determine whether, on the whole, the accuracy of the expenses allocated to conduit plant has been improved relative to the status quo formula, one would need to undertake a comprehensive review of each and every line item associated with not only this particular aggregate expense account, but all the other expense accounts allocated to conduit plant on the basis of prorated investment. It does not appear PSE&G has undertaken such a comprehensive review, nor in my opinion, would such a review be beneficial from an overall economic societal welfare perspective.

Q. WHAT IS THE EFECT ON THE REGULATED RATE OF PSE&G'S SELECTIVE ADJUSTMENT FOR SECURITIZATION?

A. Based on my calculations, the effect of PSE&G's adjustment would be to artificially increase the regulated rate, to the benefit of PSE&G vis-à-vis third party renter, by $0.10 per conduit foot.

Q.HOW DID YOU ARRIVE AT THAT FIGURE?

A. In calculating accumulated deferred taxes attributable to conduit, which under the BPU formula, is the sum of FERC Accounts 281, 283, 283, and 190 prorated to conduit plant, PSE&G removed $1.4-million in deferred taxes booked to FERC Account 283. This resulted in an adjusted balance of $471-million, as opposed to the actual book balance of $1.884-billion as recorded in FERC Account 283. Substituting PSE&G's reduced adjusted balance in Account 283 in the calculation of both components of the formula, i.e., the net linear cost of conduit, and

the carrying charge factor,[30] has the effect of increasing the maximum allowable rate from $0.64 to $0.74. For purposes of isolating the effect of PSE&G's securitization adjustment only, both these figures are derived using PSE&G's occupancy factor assumption, which for the reasons discussed below, I disagree.

Q. WHAT IS YOUR RESPONSE TO PSE&G'S TESTIMONY CONCERNING THE OCCUPANCY FACTOR?

A. As noted in my direct testimony (at 24-25), consistent with the economic principle of cost causation underlying the BPU formula approach, the appropriate number of inner ducts to use in the formula is the number of inner ducts *present in the ducts being occupied* by the third party attacher. Mr. Fea testified in his direct case (at 2-3) that the actual number for conduit occupied by AT&T occupancy is 3, and PSE&G has presented no evidence to refute Mr. Fea's testimony. Mr. Fea presents additional testimony on this issue in his rebuttal. As discussed in my direct testimony (at 24), the FCC has held that actual data on the presence of inner ducts is effective rebuttal to the half-duct convention. Accordingly, in my opinion, it is correct, based on the principle of cost causation and in keeping with FCC policy, to calculate the regulated rate formula based on an inner duct number of 3, not the 2 that PSE&G uses based strictly on the half-duct convention.

Q. WHAT IS THE EFFECT ON THE REGULATED RATE OF PSE&G'S ADJUSTMENT TO THE OCCUPANCY FACTOR?

[30] Deferred income taxes are used in the BPU formula to calculate net investment (it is subtracted from gross investment, as is accumulated depreciation, to arrive at a "net" investment figure). Accordingly, deferred income taxes enters into the calculation of both the net linear cost of conduit and the carrying charge factor components of the BPU formula. In deriving net linear cost of conduit, it is subtracted from gross conduit investment, so that it is negatively related to that component of the formula (i.e., a decrease in the amount of deferred taxes increases the net linear cost of conduit). In deriving the carrying charge factor, it appears in the denominator of the various carrying charge elements, since expense amounts are expressed as a percentage of net investment, so that is positively related to the carrying charge factor component of the formula. The first effect outweighs the second effect, so that overall, the effect of decreasing deferred incomes taxes (as results from PSE&G's securitization adjustment) is to increase the maximum allowable rate.

A. As noted in my direct testimony (at 30), the effect of using an occupancy factor of .50 (corresponding to the presumption of 2 inner ducts per conduit) versus an occupancy factor of .33 (corresponding to the more realistic figure of 3 inner ducts per conduit) is to increase the maximum allowable rate by 50%. Put another way, even if one were to accept Mr. Chadwick's securitization adjustment, changing the occupancy factor to .33 would reduce his computed rate from $.74 to $.50 per foot per year.

Q.MS. KRAVTIN, IN YOUR DIRECT TESTIMONY YOU IDENTIFIED TWO REASONS WHY YOU BELIEVE THE $0.42 RATE YOU CALCULATED USING THE BPU FORMULA IS UNDERSTATED RELATIVE TO THE ACTUAL COSTS PSE&G INCURS IN CONNECTION WITH AT&T'S OCCUPANCY OF ITS CONDUIT. DID PSE&G RESPOND TO YOU ON THAT ISSUE?

A. No, it did not. Neither Dr. Makholm nor Mr. Chadwick substantively responded to my testimony (at 31-33) that identified key discrepancies with regard to the number of conduit feet in PSE&G's system and the total conduit investment booked to Account 366, Conduit Plant. As regards to the number of conduit feet, Mr. Chadwick merely states (at 3) that "PSE&G's terminology [] differs from that used by AT&T and the Federal Communications Commission" (and I would add, the BPU as well). This cursory statement is not a substantive response to the discrepancy that arises when the terms "conduit" and "inner duct" are used interchangeably, since the two terms have very different meanings outside of PSE&G. PSE&G was asked in follow-up discovery to provide workpapers showing how the "conduit" feet identified by PSE&G in a previous response were derived. PSE&G's initial response indicated the company required additional time to respond, but in the supplemental response, PSE&G indicated there were no additional workpapers to provide.[31]

[31] See PSE&G Response to AT&T-12 and AT&T-36 (initial and supplemental).

As to the discrepancy I identify regarding Account 366 total conduit investment (i.e., the figure reported by PSE&G on the FERC Form 1 significantly exceeds the figure derived from PSE&G's internal accounting records), neither company witness presented any testimony in response. As discussed in my direct testimony (at 32), PSE&G was asked in discovery to provide a reconciliation of the disparate conduit investment figures, but did not do so.

Accordingly, the questions raised in my direct testimony regarding these key discrepancies remain unanswered, as does my conclusion that the maximum allowable rate I calculated based on the BPU formula, if anything, may be overstated. When one takes into account the additional fact that PSE&G is able to impose make ready charges for any non-recurring or out-of-pocket costs it incurs in connection with a conduit attachment by AT&T, PSE&G is more than ensured full cost recovery under the BPU formula.

Q. MS. KRAVTIN, DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY AT THIS TIME?

A. Yes, it does.