

EXHIBIT C

**Before the
Arkansas Public Service Commission**

In the Matter of a Rulemaking
Proceeding to Establish Pole
Attachment Rules In Accordance
With Act 740 of 2007

Docket No. 08-073-R

**REPORT OF
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INTRODUCTION

Qualifications

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. I have also provided expert testimony and reports in proceedings before the Federal Communications Commission (FCC) and before international agencies including the Canadian Radio-television and Telecommunications Commission, the Ontario Energy Board, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation in federal district court, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience is provided in Attachment 1 to this Report.
3. Over the past decade, I have been actively involved in a number of state regulatory commission proceedings involving cost methodologies and the allocation of costs of incumbent local exchange carriers (ILECs). 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, and have testified extensively on, is access to poles, ducts, conduits, and rights-of-way. Most recently, I submitted initial and reply reports in the FCC's ongoing proceeding, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303. In 2006, I submitted testimony and was subject to live cross-examination before the FCC's Chief Administrative Law Judge, on issues pertaining to utility compensation for pole attachments in *In the Matter of Florida Cable Telecommunications Association, Inc., et. al. v. Gulf Power*

Company, Initial Decision, FCC 07D-01, 22 FCC Rcd 1997 (2007) (appeal pending) (“*FCTA*”). Previously, I submitted declarations on pole attachment, conduit and rights-of-way issues before the FCC in a pole attachment rulemaking proceeding, CS Docket No. 97-98, and in a pole attachment complaint proceeding *Cavalier Telephone v. Dominion Virginia Power*, Case No. EB-02-MD-005. I have also testified on matters relating to the costing and pricing of utility and incumbent local exchange carriers’ pole attachments in proceedings before the New Jersey Board of Public Utilities (Docket EO0511005), the Ontario Energy Board (RP-2003-024), the District of Columbia Public Service Commission (Formal Case No. 1006), the New York Public Service Commission (Cases No. 02-M-1636 and No. 98-C-1357), the Georgia Public Service Commission (Docket 7061-U) and the South Carolina Public Service Commission (Docket 97-374-C).

Purpose and Summary of Report

4. The purpose of this Report is to respond to certain matters raised in General Staff’s Petition, Initial Comments, and Proposed Pole Attachment Rules (“Proposed Rules”), *In the Matter of a Rulemaking Proceeding to Establish Pole Attachment Rules in Accordance with Act 740 of 2007*, filed with the Commission on April 17, 2008, as they pertain to the pole attachment rate formula and certain other rules contained in Staff’s Proposed Rules.

5. This Report addresses and explains the following points:

- Utilities possess monopoly control of poles and conduits, and cable operators and other attaching entities often have little practical choice but to attach their facilities to utility poles;
- Due to the necessary shared use of poles by cable operators and other attaching entities, monopoly owned pole networks are considered “essential” or bottleneck” facilities, access to which must be effectively regulated;

- Without effective regulation of poles, as required by both federal and state law, utilities have both the ability and incentive to charge excessive, over-compensatory pole attachment rents and impose unreasonable and unjust terms and conditions;
- Curbing monopoly abuses, such as the unilateral imposition of monopoly rents (*i.e.*, additional rent over and above an economically-efficient competitive market rate), is the primary purpose of pole attachment regulation;
- Shared occupancy on utility poles produces an economic “win-win” situation for both the cable attacher and the utility pole owner, benefiting consumers of both electric and communications services, and society overall, when attachment rates are kept reasonably close to economically-efficient marginal costs (*i.e.*, the additional costs incurred by the pole owner in order to accommodate or host a cable attachment that would not exist “but for” the presence of the particular cable attachment);
- The FCC cable rate formula (which covers an allocation of ongoing utility operating costs, plus a return on capital), together with “make-ready” payments (up-front payments by cable operators to utilities that, by design, cover any additional costs incurred by the pole owner in accommodating access), provides recovery of much more than marginal costs, is not a subsidized rate, and puts pole owners in a better position following access by an attacher;
- In the absence of a competitive market for poles (which there assuredly is not), the FCC cable rate formula, plus make-ready payments, most closely approximates (yet generously exceeds) the rate for pole attachment that utilities would receive if there were a competitive market;
- Staff’s proposed pole attachment rate formula undermines effective pole attachment regulation by allocating a disproportionate amount of pole costs to attaching entities (close to 30% in the case of two attaching entities), ignoring established economic and public policy principles;

- Staff's proposed pole attachment formula introduces unnecessary complexity by containing inputs such as the number of attaching entities that cannot be fully verified by attachers;
- Staff's proposed pole attachment rate methodology is based on ill-conceived "benefits-received" and "revenue-requirement" philosophies that are inconsistent with established economic and legal just compensation standards associated with pole attachments, and that stand in stark contrast to the appropriate "cost-causer pays" standard inherent in the cost-based just and reasonable principles embodied in Section 224 of the Communications Act.
- It is wholly inappropriate under any regulatory regime to allow a utility to consider the value (or benefit) an attacher receives so as to charge an attacher the "replacement cost" of a pole attachment, as that rewards the pole owner for its monopoly position, inefficiently places excess, but not incurred, costs on attachers, and allows multiple recoveries for a utility's basic asset;
- The inability to extract additional pole rent over and above a compensatory rate from captive attachers is *not* a "cost" to which utilities are entitled. By mistakenly embracing the utility view that it is, Staff's proposed methodology would enable the utility to further exploit its monopoly ownership of the pole network, contrary to effective pole attachment regulation and at the expense of broadband deployment;
- Staff's proposed rules focus incorrectly on an accounting attribution of the utility's electric services revenue requirement to third-party attachers, as opposed to a truly economic attribution of pole attachment costs to attaching entities based on those costs that attachers are causally responsible for, and in doing so, undermine Arkansas' broadband deployment goals, particularly in the more rural areas;
- Cost attribution to cable attachers under Staff's proposed rules are reflective of monopoly rate levels, similar to those produced by stand alone/avoided cost approaches, and conflicts with the just and reasonable rate requirement of the Arkansas statute.

- The FCC’s well-established, cost-based “cable rate” methodology, which the vast majority of states (including Arkansas for investor-owned utilities for the past 30 years) use to calculate pole attachment rates, has been found by the FCC, state public utility commissions and courts, including the Supreme Court, to provide just compensation, and no additional compensation – as appears to be driving Staff’s proposed rules – is necessary;
- Staff’s proposal to strip out for separate recovery by the utilities certain costs from administrative cost accounts included in both the FCC’s cable and Staff’s rate formulas would unnecessarily complicate the application of a rate formula, increase substantially the risk of double cost recovery, and require full rate hearings to resolve;
- All the costs associated with processing an attachment request and estimating make-ready costs are fully recovered in the administrative carrying charges factored into both Staff’s formula and the cable rate formula;
- There are a multitude of administrative costs being recovered in the pole formula rate that have nothing to do with poles or pole attachments and for which it is inappropriate to allow the utility to recover from attachers, but which attachers nevertheless pay;
- To the extent Staff’s proposal to start stripping out certain administrative costs for special treatment is adopted, then a similar effort must be made to remove any and all non-pole related expenses from the pole formula in accordance with economic principles.
- The cost allocation methodology embodied in the cable rate formula, which assigns the cost of “unusable space” in the same proportion as it assigns “usable space,” offers significant advantages over Staff’s proposal, including greater consistency with fundamental economic principles of cost causation, administrative simplicity, more closely mimics a competitive market outcome, and avoids the complicating need for data on the number of attaching entities;

- Staff's proposal to assign the cost of unusable space based on the average number of attaching entities on the pole, is not consistent with the dynamic nature of pole capacity (whereby the sharing of poles among multiple users does not as a rule result in exhaustion of the shared resource), and is not economically justified;
- Staff's over-compensatory pole attachment rate methodology will have a negative impact on the deployment of and competition for residential voice and other advanced broadband services particularly in rural areas, where there are less attaching entities on poles, and at the same time, there is no evidence that increased utility pole revenues will result in any meaningful reduction in residential electric rates;
- Staff's definition of "Insufficient Capacity," as "[t]he inability of a . . . pole owner to accommodate a new Pole Attachment or Overlapping without performing Make-Ready Work," conflicts with fundamental economic principles and years of customary pole construction and attachment practices here in Arkansas as well as every other state and under federal law;
- From an economics perspective, the only time there is insufficient capacity on a pole is in those instances where Make-Ready, including a pole change-out, is infeasible due to terrain, obstructions, zoning restrictions and other such objective conditions; while those situations exist, they are few and far between;
- Under federal law, the parties must agree that capacity is insufficient before access to utility poles can be denied, and denials must be applied by the utility in a non-discriminatory manner;
- Staff's proposed rule that exempts existing agreements from Commission review conflicts with the clear language in the statute, and also with the fundamental unequal nature of the bargaining relationship between monopoly pole owner and third-party licensee;

- Given the pole owner's superior bargaining position due to its monopoly ownership of essential pole facilities, it would be incorrect to view transactions or even formal executed agreements between attachers and pole owners as "voluntarily" negotiated or "free market" benchmarks over which the Commission's regulatory authority need not apply;
- The ability to review contracts, whether negotiated or proposed, facilitates good faith bargaining between the parties and would serve to eliminate the need for Commission intervention in the first instance; and
- Staff's proposed rules regarding pole modification are not fully consistent with key principles of cost-causation as necessary to ensure just and reasonable, and non-discriminatory rates for third-party pole attachers, and should be amended to include specific language from §224(h)-(i) applying these principles to pole replacements and rearrangements.

UTILITY POLES ARE ESSENTIAL BOTTLENECK FACILITIES TO WHICH CABLE AND OTHER THIRD PARTIES NEED ATTACH.

6. Utilities have absolute control over access to poles, conduits and utility rights-of-way facilities. Historically, the utilities' 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. The established utility pole networks that resulted from these deliberate policies have been paid for over the years by the utilities' monopoly ratepayers for whom those networks were built and maintained.

7. Third party attachers, such as cable operators, did not have the same opportunity to construct their own pole networks. Due to a host of real-world constraints, including zoning, environmental, municipal ordinance, financial, social, and aesthetic and other restrictions, it is not practical or possible to build a second set of poles. In any given area, there is generally one utility pole owner with surplus space. There is no other regulated or unregulated entity that leases pole or conduit in sufficient number or location so as to provide the cable operator or other

third-party attacher with a viable alternative to the leasing of pole or conduit space from the existing utility.

8. Because utility pole owners have a monopoly over pole networks, cable operators often have no choice but to attach to utility-owned facilities. This necessary shared use of established, monopoly-owned pole networks is described in the economics and public policy literature as access to or use of “essential” or “bottleneck” facilities.¹ Where a utility has absolute control over essential facilities, effective regulation of these facilities is necessary to curb monopoly abuses, such as excessive prices and restrictive access.

9. In 1978, Congress passed the Pole Attachments Act, in recognition of the fact that cable operators typically have no practical alternative to the use of utility pole facilities and to address monopoly abuses by utilities, including excessive monopoly rents, that the utilities’ absolute control over access to poles allows them to impose.² In this regard, nothing has changed since Congress enacted the Pole Act in 1978. Indeed, even in 1996 when the Pole Act was amended in conjunction with passage of the Telecommunications Act (“Telecom Act”), Congress continued to recognize that, without continued vigilance over pole owners and effective pole attachment regulation, pole owners would abuse their monopoly status, even more so because they were given the ability to compete.³

¹ See *NCTA v. Gulf Power*, 534 U.S. 327, 330 (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 charge monopoly rents.”

² From the legislative history in connection with the 1978 Pole Attachments Act: “Owing to a variety of factors, including environmental or zoning restrictions and the costs of creating 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,” S. Rep. No. 95-580, at 13 (1977); also “[P]ublic utilities by virtue of their size and exclusive control over access to pole lines, are unquestionably in a position to extract monopoly rents from cable TV systems in the form of unreasonably high pole attachment rates.” *Id.* From the 2002 Eleventh Circuit Court decision, “As the owner of these ‘essential facilities,’ the power companies had superior bargaining power, which spurred Congress to intervene in 1978.” *Alabama Power v. FCC*, 311 F.3d 1357, 1362 (11th Cir. 2002) (“*Alabama Power*” or “*APCo*”).

³ “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

10. Fundamentally, it was the lack of viable market-based alternatives for pole and conduit space that led Congress in adopting the Telecom Act to extend protections previously afforded cable operators to new telecommunications providers, and also to require utilities to provide non-discriminatory access to these essential pole and conduit facilities for both cable operators and telecommunications carriers.⁴ As the legislative history and language in the Telecom Act suggests,⁵ in expanding the Commission'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.

SHARED OCCUPANCY ON POLES, PRICED AT EFFICIENT COST-BASED RATES, PRODUCES AN ECONOMIC "WIN-WIN" FOR UTILITIES AND ATTACHERS, AND PRODUCES KEY BENEFITS FOR CONSUMERS.

11. As clearly articulated by Congress in the earlier legislative history in connection with the 1978 Pole Act (and reiterated in connection with the 1996 Telecom Act)⁶ sharing arrangements for pole users are efficient, practical, and necessary for the public good.⁷ Cable operators are occupying otherwise available and unused space on existing poles.⁸ In a 2007 decision, the FCC's Chief Administrative Law Judge described the situation as one in which "the cable operator occupies space that would otherwise be vacant" because "space is available for all those who request space."⁹

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." *APCo*, 311 F.3d at 1361-63.

⁴ See 47 U.S.C. § 224 (1997).

⁵ See 47 U.S.C. § 224(f) (Supp. II 1996).

⁶ 47 U.S.C. § 224(f) (Supp. II 1996).

⁷ "Sharing arrangements minimize unnecessary and costly duplication of plant for all pole users, utilities as well as cable companies." S. REP. NO. 95-580, at 16 (1977).

⁸ "CATV offers an income-producing use of an otherwise unproductive and often surplus portion of plant." *Id.* at 13.

⁹ *FCTA* at 10.

12. For use of this otherwise vacant space on utility poles, under the FCC's cable rate formula, cable operators are paying well in excess of the marginal costs associated with their occupancy, including a "fair return on the utility's investment."¹⁰ In addition, utilities receive make-ready payments to cover the cost of any out-of-pocket costs they incur in connection with the cable attachments, plus they enjoy the benefit of any and all improvements to their pole assets fully funded by those make-ready charges. As detailed further below, under the cable rate formula, utility pole owners are definitively better off financially after a cable attachment than before.¹¹ The FCC and the courts have consistently found that the regulated cable rate provides utility pole owners with full and just compensation for cable television system pole rentals.¹² In this context, both the cable operator attaching to the poles as well as the utility owner of the poles have benefited substantially from the shared arrangement, producing an economic "win-win" situation for the private parties involved in the transaction.

13. In addition to the respective benefits to the parties directly involved (i.e., the private benefits of the transaction), there are important public benefits that accrue to the society at large from shared pole arrangements at the cable rate formula. From a "societal welfare" point of view, there is economic value to society associated with the efficient use of resources, i.e., the use of resources resulting in the lowest overall cost to society and the best possible utilization of those resources as compared with alternative uses.

14. Utility distribution networks including poles are a classic case of what economists refer to as a "natural monopoly," meaning "economies of scale are so persistent that a single firm can serve the market at a lower unit cost than two or more firms."¹³ As a consequence, the shared use of a utility's existing distribution network results in a lower overall cost to the economy as a whole in terms of the consumption of society's resources. Resources that would otherwise be used (unnecessarily and more expensively) to duplicate existing pole networks are instead freed up

¹⁰ Id.

¹¹ "Significantly, when an attacher pays the cost of getting on a pole, Gulf Power stands to earn more." Id. at 7.

¹² See, e.g., *Alabama Cable Telecomms. Ass'n v. Alabama Power*, 16 FCC Rcd 12209 at ¶52 (2001) ("ACTA").

¹³ F.M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally, Chicago, 1980, at 482.

and can be put to more productive uses – in particular, ones that can provide concrete benefits to consumers such as the provisioning of new and improved services and at lower prices to consumers.

15. The closer the prices charged for the shared use of the natural monopoly pole facilities are to the owner's marginal costs of attachment, the more efficient the outcome in terms of maximizing the productive use of societal resources. Perhaps more importantly, it creates conditions more likely to simulate and therefore stimulate competition market performance, with its wide-ranging benefits to consumers in the form of lower prices, greater choices among new and innovative broadband services, and enhanced productivity and economic development opportunities. Because of the positive impacts associated with such conditions, it makes economic sense to ensure cable's access to essential pole facilities continues at levels that more closely approximate the competitive market standard of marginal costs. The possibility of lost value to consumers and society in general from allowing utilities to charge too high a price for pole attachments relative to the marginal costs of the attachments is all the more troubling given the relative ease with which cable and other third party attachers have historically been accommodated through a utility's normal and customary make-ready arrangements.

16. To summarize, it continues to be efficient, practical, and necessary for cable and other third party attachers to occupy space on utilities' poles. Moreover, such arrangements are economically beneficial to *all* parties involved, including the utility, as well as to society at large. Notwithstanding the economic "win-win" of cable and other third party attachers' shared occupancy of utility poles, utilities continue to have the ability and incentive to exploit their monopoly ownership of the poles and to extract additional rent from attachers well in excess of the economically efficient or marginal costs of pole attachment. Staff's proposal produces rates far in excess of not only the FCC's cost-based and fully compensatory cable rate, but also the even higher FCC telecom rate., Those higher rates, in conjunction with other proposed rules that strongly disadvantage third-party attachers, would enable the utility to further exploit its

monopoly ownership of the pole network, contrary to effective pole attachment regulation and at the expense of broadband deployment in Arkansas, which already lags behind the nation.¹⁴

With compensation and attacher-funded upgrades from Make-Ready, in addition to the cable rate, utilities are *better off* after accommodating cable attachments.

17. Under the current regulatory regime, in addition to the cable formula rate, the utility is also allowed to charge cable operators make-ready charges to recover any one-time additional costs incurred in the provision of pole attachments. Because of this additional compensation over and above the cable formula rate (which can be quite substantial), plus the fact that any upgrades to the pole made (and paid for) through the make-ready process become property of the utility, the pole owner is likely made *even better off* after the accommodation of an additional cable attachment. This can occur in any of the following ways:

- The utility receives in excess of the marginal costs it incurs through the combination of make-ready plus the cable rental rate;
- The utility ends up with greater available pole capacity as compared with pre-attachment, because cable attachments place minimal space demands on the pole and poles come in standard, 5-foot incremental heights;
- More space is available on the pole to accommodate additional uses and/or users for which the utility can realize additional sources of revenue; and
- The utility has the benefit of a newer, stronger pole for its own operations at the cable company's expense, and can realize savings (or deferred capital expenditures) to its own build-out program, as recognized by the FCC.¹⁵

¹⁴ Based on data compiled by the FCC, Arkansas' broadband deployment averages 73%, which ties it with South Dakota for last in the continental U.S., and just below New Mexico's 77%, as compared to the national average of 96%. FCC Wireline Competition Bureau, *High Speed Services for Internet Access: Status as of June 30, 2007* (rel. Mar. 2008), Table 14. See also Toby Manthey, *Internet Access Subject of Forum*, Arkansas Democrat Gazette, Aug. 29, 2007, available at <http://nwanews.com/adg/Business/199894> (quoting United States Senator Mark Pryor), where Arkansas is shown to rank 47th out of 50th states.

18. Taken together, the *combination* of rental rates - which cover a proportionate share of the operating costs (administration, maintenance, inspections, etc.) and the capital costs (depreciation, taxes, and a return on investment) based on the costs of the entire pole - and make-ready charges (which cover any non-recurring costs incurred by the utility in connection with the attachment) ensures the utility recovery of much more than the marginal cost of attachment¹⁶ Under these conditions, neither utilities nor their electric ratepayers can be said to be worse off as a result of the application of the cable formula rate, and in fact, with make-ready, utilities are more likely better off following an attachment by a third party.

**STAFF'S PROPOSED RULES UNDERMINE EFFECTIVE POLE ATTACHMENT
REGULATION AND IGNORE ESTABLISHED ECONOMIC AND POLICY
PRINCIPLES GOVERNING POLE PRICING AND ACCESS.**

19. There are numerous components to Staff's proposed rules that would undermine effective pole attachment regulation governing the pricing of and access to poles, and have negative consequences for Arkansas consumers. These include a rate formula that allocates a disproportionate amount of pole costs to attaching entities, relies on unverifiable data on the number of attaching entities, and is based on ill-conceived non-cost-based principles. Other aspects of Staff's proposed rules that seriously undermine pole attachment regulation include a requirement to separately account for administrative costs that permit the double recovery of costs, and a definition of insufficient capacity that would effectively shut down a cable operator's ability to make a new attachment.

¹⁵ "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." *ACTA*, 16 FCC Rcd. 12209 at ¶ 58.

¹⁶ "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 must 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.*" *Alabama Power*, 311 F.3d at 1369, 1370 (emphasis added).

Staff's proposed allocation of unusable space costs based on the number of attachers versus relative-use, and designating additional space as unusable although it is used by and is of direct benefit to utilities, is not economically justified.

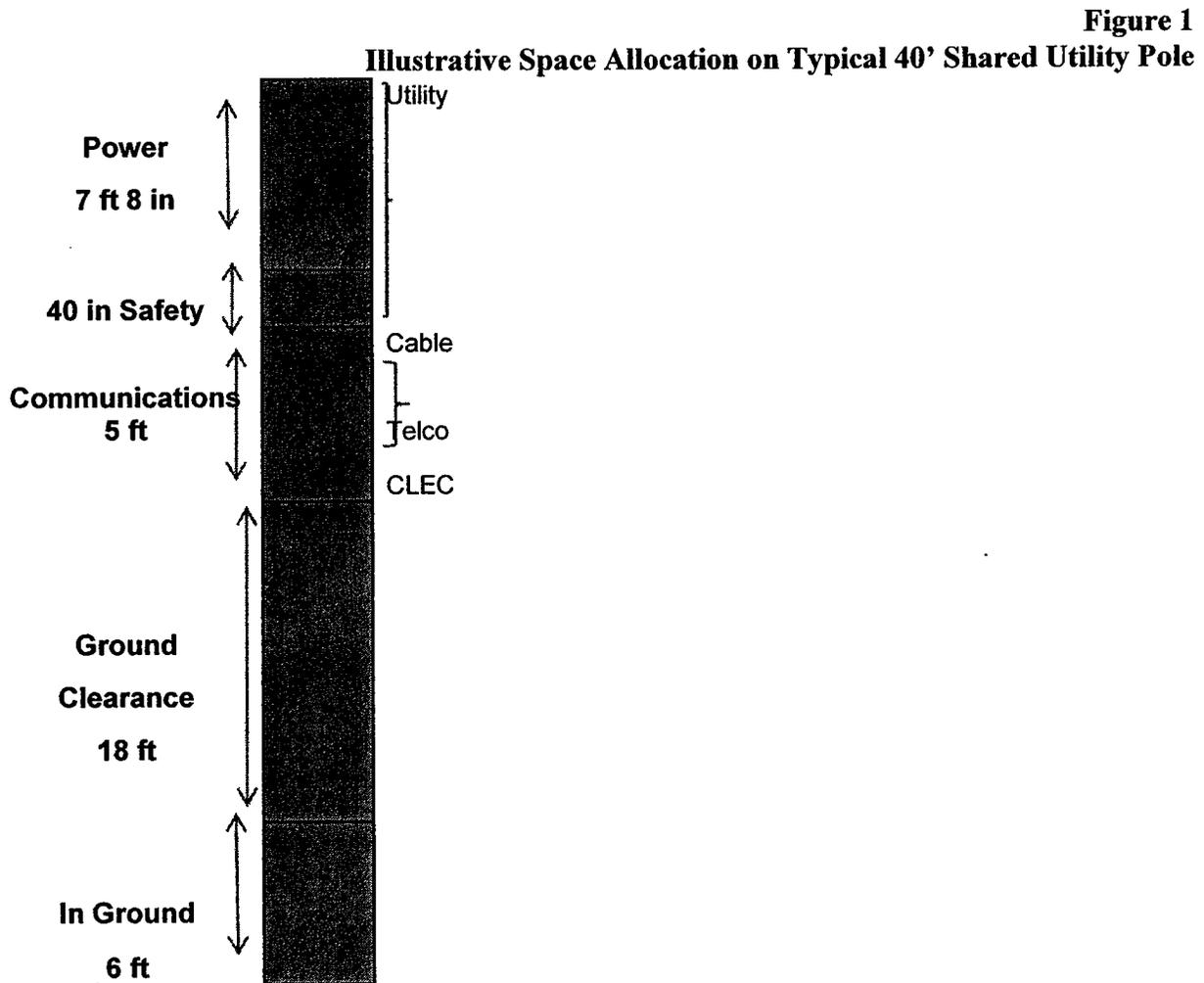
20. Under Staff's proposed pole rate formula, pole costs are allocated to attaching entities as follows: (1) "[t]he usable space on the pole is allocated to an attaching entity based on the amount of space occupied by the attachment;" (2) "[o]ne-third of the cost of the unusable space on the pole is directly assigned to the public utility pole owner;" and (3) "[t]he remaining two-thirds of the cost of the unusable space are allocated to the attaching entities and public utility pole owner equally" (Proposed Rules at 10). Staff's proposal is modeled after the FCC's Telecom rate formula methodology in that costs associated with useable and unusable space on the pole are allocated in the two distinct ways, i.e., costs associated with usable space (pertaining to the direct costs of attachment) are allocated based on the relative use or occupancy of the usable space in the same manner as the FCC cable formula, whereas costs relating to the unusable space (indirect or common costs associated with poles) are allocated on a per attacher basis.

21. The Staff formula is further tweaked, however, to make it even more favorable to the monopoly pole owner. Specifically, for a 37.5' pole, Staff's defines an additional 3.33 feet of so-called safety or separations space (classified by the FCC as usable space to the utility) as unusable, for a total unusable space allocation of 27.33,' and usable space allocation of 10.17'. Under both the FCC's Cable and Telecom rate formulas, the presumptions are 24' of unusable space and 13.5' of usable space on a 37.5' pole. In addition, Staff would allow the utility to establish its own service-area specific input for the average number of attachers.

22. Both of Staff's modifications are highly problematic in that they exacerbate an already excessive space (and cost) allocation to attachers under the FCC Telecom Formula. This excessive space allocation results from the use of an unrealistically short pole height (today, more poles in use are 40' and 45' tall, versus the 37.5' used in both the FCC's Cable and Telecom Formulas), and also the Telecom formula's allocation of unusable space on a *per-attacher* basis. As discussed further below, the allocation of unusable space on a per-attacher basis, in and of itself overallocates costs to attachers, because, as an economic matter, the

indirect costs associated with unusable pole space do not vary according to the number of attaching entities. Staff's proposed space adjustments only compound the existing overallocation by shifting costs associated with space that is of direct benefit to the utilities (and categorized by the FCC as usable) into the unusable space category.

23. Figure 1 below illustrates the physical configuration of a typical shared utility pole on which power, telephone, cable, and CLEC attachers have installed facilities. In reality, there can be all manner of other devices also present on the pole including streetlights, private floodlights, traffic signals, fire and police call boxes and alarm signal wires, and municipal communications systems.



24. As shown in Figure 1, the typical pole has six feet of its height underground, and another eighteen feet reserved for clearance above ground as required to clear possible interference and

obstacles along the path of the pole network.¹⁷ Space for communications attachments, as historically specified under joint use agreements between power and telephone utilities, is available immediately above the required ground clearance. Above the communications space is a 40 inch separation (safety) or neutral space pursuant to requirements of the National Electric Safety Code (NESC). As is also common industry practice, power lines are generally located on the upper-most portion of utility poles, telephone cables are located at the minimum ground clearance of 18 feet, and cable television facilities are located one foot above telephone.¹⁸ In the post-1996 Act period, one or more competitive telecommunications providers are in some areas also attached within the shared communication space.

25. As found by the FCC, it is the common practice of utilities to use the 40 inch safety space Staff is proposing to treat as “unusable” for the “mount[ing of] street light support brackets, step-down distribution transformers, and grounded, shielded power conductors,” and to realize revenues from the rental of that space for street lights.¹⁹ This common practice has been confirmed on Arkansas poles.²⁰ Similarly, the presumptive number of attaching entities is already perhaps the most contentious element in the Telecom Formula. Both these deficiencies are discussed further in sections of this Report to follow.

26. A diagrammatic illustration of Staff’s methodology and the resulting allocation of pole costs to a cable operator are shown in Figure 2 for a presumptive 37.5’ tall pole. Staff’s methodology is calculated assuming two attaching entities, and one foot of usable space. While under Staff’s rules, the presumptive number of attaching entities is three (as in the FCC Telecom formula), two is the much more likely number to be applied in Staff’s formula. This is because, under Staff’s proposed rules, utilities are free to set their own number of attaching entities, and the lower the number of attaching entities, the higher the amount of costs the utilities can allocate to

¹⁷ See, e.g., *Second Report and Order, In the Matter of Adoption of Rules for the Regulation of Cable Television Pole Attachments*, FCC Docket No. 78-144, 72 FCC 2d 59, 1979 FCC LEXIS 374, at *68; n.21.

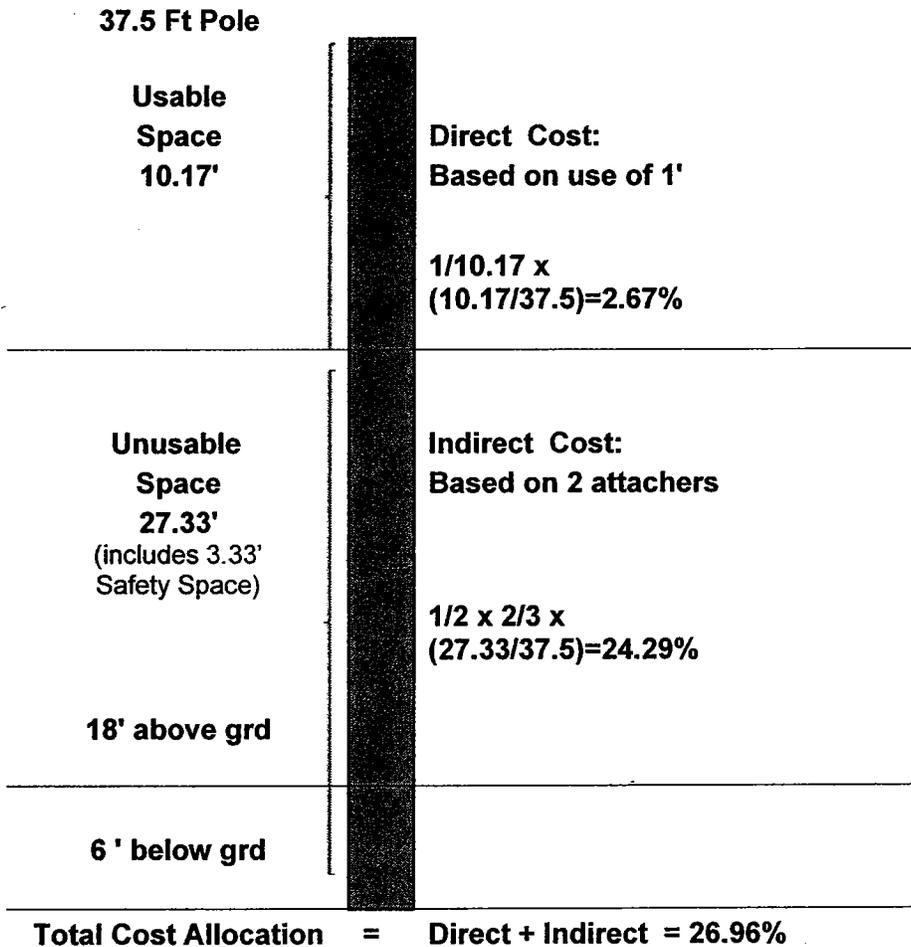
¹⁸ *Id.* at *69.

¹⁹ *Id.* at *71.

²⁰ See the Report of Michael T. Harrelson, at ¶¶ 20-21.

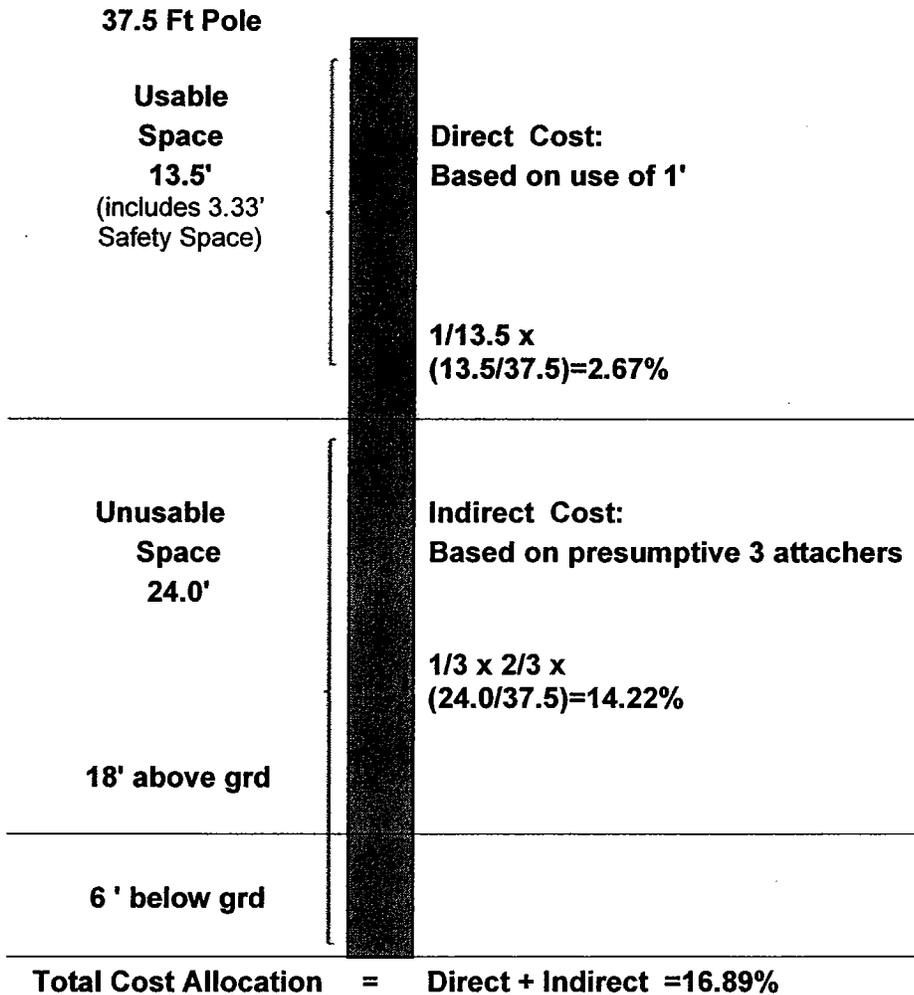
an attaching entity. As shown in Figure 2, the resulting allocation of the total costs of a pole under Staff's proposed formula would be roughly 27%.

Figure 2
Allocation of Total Pole Costs under Staff's Proposed Formula



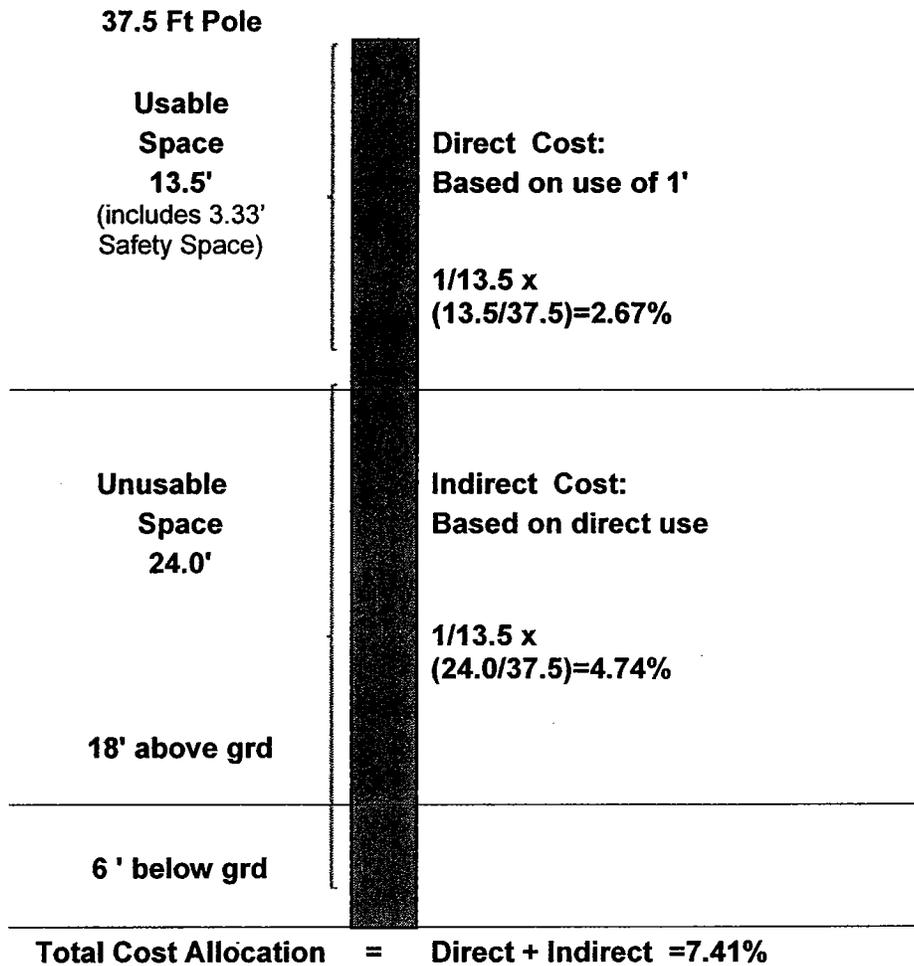
27. As shown in Figure 3 below, the FCC's Telecom Formula cost allocation is based on the standard FCC presumptions of 3 attaching entities for rural areas, 13.5' of usable space, and 24' of unusable space, but is otherwise calculated in a manner similar to Staff's proposed formula. As shown in Figure 3, the Telecom Formula allocates 16.89% of the total costs of a pole to a cable operator.

Figure 3
Allocation of Total Pole Costs under Telecom Formula



28. By contrast, the cable formula is calculated based entirely on the *relative use* of the pole, and therefore does not require any assumption as to the number of attaching entities. As discussed further below, this is one of many key advantages of the cable rate formula. As illustrated in Figure 4 below, using the FCC's cable formula methodology, 7.41% of the total costs of the pole are assigned to a cable operator.

Figure 4
Allocation of Total Pole Costs under Cable Formula



29. As shown in Figures 3 and 4 above, and mentioned earlier, under both the FCC's Cable and Telecom rate formulas, the presumptions are 13.5' of usable space and 24' of unusable space on a 37.5' pole (a blend of the once typical 35' and the now standard 40' pole). Based on these presumptions, the percentage of usable space occupied and attributable to the attacher under the FCC Cable Formula is 7.41%, and the percentage of space attributable to the attacher under the FCC Telecom Formula, calculated using the presumptive 3 attaching entities, is 16.89%.

30. Table 1 below summarizes and compares the cost allocations derived using the two FCC formulas with Staff's proposed allocation. As shown in Table 1, Staff's proposed methodology would assign nearly 60% more costs to cable attachers vis-à-vis the FCC Telecom rate, and *over 3.5 times more costs* vis-à-vis the FCC Cable rate.

Table 1
Staff's Proposed Cost Allocation vs. FCC Telecom and Cable Formulas

Rate Formula	Cost Allocation Factor	% Staff Increase
Staff (2 entities)	26.96%	
FCC Telecom (3 entities)	16.89%	59.62%
FCC Cable	7.41%	263.83%

31. However, today, more poles in use are 40' and 45' tall, versus the 37.5' used in both the FCC's Cable and Telecom Formulas. It is therefore more realistic and appropriate to calculate the pole rental formula using either the standard 40' pole, or following the FCC blended approach, using an average of 40' and 45' poles, i.e., a 42.5' pole. As shown in Table 2 below, using the more realistic pole heights, the percentage of space properly attributable to the attacher under the FCC Cable Formula falls from 7.41% to 6.25% for a 40' pole, and to 5.41% for the blended 42.5' pole. For the FCC's Telecom Formula, the percentage of space properly attributed to an attacher falls from 16.89% to 15.83% for a 40' pole, and to 14.9% for a 42.5' pole, respectively (again calculated using the presumptive 3 entities). By further way of comparison, under the Staff's recommendation for usable/unusable space, with no justified deviation from the FCC approach, or change in attachment occupancy or clearances, the percentage of usable space attributable to the attacher as calculated under the FCC Cable Formula (currently used in Arkansas and the majority of states) would balloon to 9.83%—a more than 30% increase over the current 7.41% allocation, and an over 57% increase over the more realistic pole-adjusted allocation of 6.25% shown in Table 2.

32. The more meaningful and also more striking comparison, however, is between the allocation Staff is actually proposing be applied to cable operators in Arkansas, which is based on the FCC

Telecom Formula. Using the Telecom Formula methodology, as proposed by Staff, in conjunction with Staff's recommended usable /unusable space assumptions, the space allocation would jump to 18.86% (using the 3 attacher presumption), however, to an even higher 26.96% calculated based on 2 attaching entities, as is likely under Staff's proposed rules given Staff would give the utility free reign with regard to this critical formula input. Rate comparisons based on the more realistic pole height assumptions are presented in Table 2 below. As shown below, using more realistic pole heights assumptions increases the rate impact of Staff's recommended formula even more dramatically. Pole rental rates for cable operators would be as much as 400% higher than what the cable formula rate would produce.

Table 2
Staff's Proposed Cost Allocation vs. FCC Telecom and Cable Formulas
Using More Realistic Pole Heights

Rate Formula	Cost Allocation Factor	% Staff Increase
Staff (2 entities, 37'5 pole)	26.96%	
FCC Telecom (3 entities, 40' pole)	15.83%	70.30%
FCC Telecom (3 entities, 42.5' pole)	14.90%	80.93%
FCC Cable (40' pole)	6.25%	263.83%
FCC Cable (42.5' pole)	5.41%	398.00%

33. As explained above, from both an economics and public policy standpoint, the correct benchmark against which to evaluate the appropriateness of a rate (or rate methodology) for an essential bottleneck service such as poles are the economically-efficient marginal costs (i.e., the additional costs incurred by the pole owner in order to accommodate or host a third-party attachment that would not exist "but for" the presence of the particular attachment). The relative-use methodology embodied in the cable rate formula, by charging attachers in proportion to their direct use or occupancy requirements (including attendant clearances), just as occurs in other sectors of the economy where facilities are leased, comes closest to reflecting this fundamental cost-causation principle of economics. Conversely, Staff's proposed methodology, by allocating

a disproportionately high percentage of costs of the pole to cable, despite its very small occupancy requirements, fails miserably by this standard.

34. This concept of cost-causative linkage, i.e., determining costs of occupancy of indirect or common spaces in a facility on the basis of relative use or the direct occupancy of space is a common and widely-accepted practice in the leasing of property and other facilities throughout the private and public sectors of the economy. One can readily point to other examples where usage-based allocators are used to attribute costs associated with common space and other common overhead type costs. For example, it is typical throughout commercial real estate markets for owners of office buildings to recover the costs of common spaces such as lobbies, elevators, grounds, roof decks, etc. on the basis of the tenants' direct occupancy of square footage. Consistent with the relative use methodology, a tenant occupying the top ten floors of a fourteen-story building would pay proportionately more toward common costs of the building than a tenant occupying only three floors of office space who in turn would pay proportionately more than tenants occupying an individual office suite on a single floor. Given the differences in their respective occupancies of office space, and the resulting cost burdens associated with that occupancy, it would be nonsensical to assign common costs to the tenants of this building on an equal per capita basis, i.e., totaling up common costs and simply dividing by the number of tenants (which is how the Staff formula works).

35. Electric utilities have consistently opposed a formula that allocates cost of the entire pole 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 cable rate allocation of one foot of space of usable space, and a proportionate share of unusable space, is commensurate with cable's small use requirements,²¹ and with the fundamental economic principle of cost causation, under which the entity causally responsible (i.e., the entity but for whose existence or action a cost would not have been incurred) is attributed those costs, but not materially more than those costs. Compared with electric utility facilities, cable attachments occupy considerably less space on the pole and place much less of a cost burden on

²¹ "We understand CATV cables are uniformly assigned an effective occupancy space of 1 foot, without regard to their actual 3/4 or 1/2 inch diameter." 72 F.C.C. 2d 59, n. 26.

poles than do electric conductors, not only in terms of space but also in terms of weight and required height above minimum grade. Moreover, the minimal requirements for cable attachments are not impacted by the cable operators' deployment of broadband services, so that cable's provision of broadband services does not diminish the underlying cost causative justification for the usage-based allocator embodied in the formula because the services are offered over the same attachment.

36. The space factor incorporated in the cable rate formula allocates the costs of the entire pole in direct proportion to the attacher's occupancy on (i.e., use of) the pole and is totally consistent with the fundamental economic concept of cost causation. Indeed, even with a relatively small portion (7.41%) of the overall cost of the pole attributed to cable under the cable rate formula calculation, the percentage of the pole used is fully reflected, and cable companies are paying well in excess of the marginal costs of their attachments, especially when make-ready charges, which can be thought of as the up-front payment of the marginal costs of hosting an additional attachment, are taken into account. The make-ready process affords utilities not only the full recovery of any out-of-pocket costs they incur in connection with a cable attachment, but also the full financial benefit of any improvements made to the pole (including the outright replacement of an existing pole with a new taller pole, on which the cable company then pays rent).²²

37. With limited exceptions, through the normal and customary operating practices of make-ready work whereby space on the pole can be rearranged and change-outs to a larger pole can be made, the accommodation of third-party cable attachers on utility poles is readily accomplished, without having to exclude other existing or potential users. Because of this economic reality of poles, there is no correlation between the number of users on the pole and the capacity to host additional attachments on that pole. For this reason, it would be entirely wrong to conclude that Staff's rate formula, because it allocates unusable space on the basis of number of users, is a

²² The cable attacher still pays rent for the improved pole, but the utility as owner receives sole benefit of those improvements in terms of the increased asset value of its plant, additional realizable rental revenues, and/or the deferral of the utility's own capital expenditures.

more cost-causative or economically efficient rate than the cable rate. Indeed, quite the opposite is true.

Staff's proposed pole rate formula relies on unverifiable data on the number of attaching entities, introducing additional complexity and unnecessary disputes.

38. Another problematic feature of Staff's proposed rate formula is its reliance on unverifiable data, such as for purposes of identifying the number of attaching entities in a given utility's service area. Presumptions regarding the number of attaching entities are complicating factors in a pole formula. Utilities themselves report that "[e]stablishing the average number of attaching entities per pole is often the most contentious aspect of the telecom rate calculation."²³ While as a general matter, the presumptions utilized in the Commission's rate formulas should reflect actual prevailing conditions, and utilities should be permitted to rebut the presumptive number of attaching entities used in the formula, it is critical that any revision to the presumptive number be based on credible, reliable, and verifiable data. Otherwise, the utility will be in a position to manipulate the inputs of the formula to produce higher rental rates to its own advantage.

39. Under Staff's proposed formula, the amount of costs the utility is allowed to allocate to third-party attachers varies inversely with the number of attaching entities. Accordingly, the utility is naturally incented to use the lowest number of attaching entities plausible, in this case, two, in order to produce the highest cost allocation possible. Under Staff's proposed rules, this is basically guaranteed to be the case, since utilities are free to establish the average number of attachers for their own service area based on internal data and using their own methodology, and the burden of challenging the utility falls on the attaching entity. To mount a successful challenge would be costly and time-consuming and under pure economics, the attacher would either pay the increased rate or pay to challenge the study so it would likely pay more than it should to avoid additional (but wholly unjustified) costs. Staff's proposal thus introduces additional complexity and unnecessary areas for dispute that offset the benefits of a uniform, predictable formula approach in the first instance and is simply guaranteed to raise pole rents even further.

²³ See Comments of Coalition of Concerned Utilities, filed March 7, 2008, FCC WC Docket No. 07-245, RM 11293, RM 11303, at 13.

40. Another area where Staff proposes to introduce additional complexity and unnecessary areas for dispute involves administrative costs. Under Staff's rules, certain of these types of costs, now included in the aggregate as part of the rate formula, would be singled out for special recovery. This particular proposal is discussed further below, but similar to Staff's proposal regarding the number of attaching entities, its implementation would introduce additional complexities and serve to offset the benefits to all parties of using a uniform, predictable formula approach to setting pole attachment rates.

Staff's proposed pole rate methodology is based in part on ill-conceived "benefits-received" and "revenue requirement" philosophies that are at odds with established principles of pole rate regulation.

41. On pages 9-10 of its Comments, Staff articulates the principles and/or philosophies underlying its proposed approach for the pole rate formula and other rules pertaining to the application of that formula contained in Section 4 of the Proposed Rules. These can be summarized into three overarching categories: (1) cost causation;²⁴ (2) "benefits-received;"²⁵ and (3) revenue requirement recovery.²⁶

42. The concept of cost-causation is well-established as an underpinning of pole rate regulation as embodied in the federal Pole Attachments Act, and as validated repeatedly since the passage of the Pole Attachments Act by the FCC, the certified states, the Courts, and Congress. Under cost-causation principles, all which are consistent with basic tenets of economics and legal just compensation rules, third-party attachers are held responsible *only* for the costs they cause the pole owning utility to incur, including a return on the utility's investment, such that the pole

²⁴ "Staffs proposed pole attachment rate formula allocates the cost of the pole based on cost causation and benefits-received principles." Proposed Rules at 10.

²⁵ *Id.*

²⁶ According to Staff: "The public utility pole owner recovers its investment in public utility poles through a combination of its rates for utility service and charges to attaching entities" (*Id.* at 9); "The proposed Rule provides a reasonable mechanism to determine a fair allocation of the public utility pole owner's revenue requirement associated with its poles to the public utility pole owner and each attaching entity" (*Id.*); "The rate formula set forth in Attachment A recognizes that the primary purpose of public utility poles is the provision of utility service and ensures that each attaching entity pays a reasonable portion of the revenue requirement associated with the poles." (*Id.*). These are all mistaken premises, as discussed below.

owning utility is, at a minimum, no worse off for having hosted the third-party attachment, but more typically is better off.

43. The primary purpose of pole rate regulation has historically been, and continues to be, about protecting cable operators and other third-party attachers against monopoly abuses of pole owning utilities. Fundamental to pole rate regulation is recognition of the fact that pole owning utilities, by virtue of historical incumbency, own and control existing pole plant to which cable operators and other third-parties have no practical alternative but to attach, and who in the absence of such regulation, would be in a position to limit access to these essential bottleneck facilities and/or to extract excessive monopoly rents. The purpose of pole rate regulation has decidedly *not* been about maximizing third-party contribution to the revenue requirement for the utility's core electric services (which is properly recoverable from the utility's ratepayers for whom the pole network was built and maintained), but rather to *limit* the rents that utilities are permitted to charge third-party attachers to levels more in line with what a competitive market (if one existed, which it does not) would produce.

44. According to basic economic principles, and as repeatedly found by the FCC,²⁷ costs directly associated with the utilities' provision of its core electric business (i.e., costs that would exist in the absence of third-party attachments) are properly recoverable from utility ratepayers in the rates they pay for those core services, and *not* from third-party attachers. Similarly, both the FCC and the Courts have solidly rejected the notion that compensation for use of utility poles should be based on the perceived "value" that third-party attachers receive from use of the poles based on their income, ability to pay, hypothetical reproduction cost, or any other non-cost causative based measure.

45. Under established economic and public policy standards as embodied in Section 224(d) of the Pole Attachments Act, the "benefits-received" by the attaching entity is appropriately linked, as would occur in a competitive market, to the *actual costs* to the pole owner caused by the attacher. The relative use or pro-rata sharing of common costs (i.e., the unusable space on the

²⁷ Federal Communications Commission, *Reconsideration Order*, 16 FCC Red at 12161-62, ¶ 122.

pole) under the cable formula properly recognizes *costs*, *not* “value” provided to cable attachers. The utilities’ inability to extract additional “value” from attachers in the form of monopoly rents is not appropriately considered economically or legally in setting just and reasonable pole rents

46. In this context, the other two concepts Staff relies on, namely the self-described “benefits-received” principle, and what can be described as the “revenue requirement recovery” principle, are at odds with established pole rate attachment principles. At their essence, the “benefits-received” and “revenue requirement recovery” principles, as articulated by Staff and incorporated into Staff’s proposed rate formula and associated rules, have their basis in arguments advanced by utilities in their pursuit of pole attachment rates closer to those they would be able to charge as an unregulated monopolist.

Staff’s proposed methodology mistakenly advances the utility view that the inability to extract additional “value” from attachers over and beyond a compensatory rate is a real “cost” to which utilities are entitled.

47. Under Staff’s proposed rules, the term “benefits-received” is being used improperly as a basis for the pole owner to extract additional compensation from the attacher *unrelated to the cost caused by the attacher or any real lost opportunity to the utility*, serving no valid economic or policy purpose. The additional “value” the utilities seek to recognize in a higher pole attachment rate, and that Staff’s proposed rules are presently designed to achieve, is *not* a true economic cost. Any increase to the cable rate to recover such uncaptured “value,” such as achieved through the equal attribution of common costs will result in a less economically efficient rate that will have negative consequences for competition and broadband deployment. This is particularly going to be case in more rural areas where higher pole costs are more likely to make construction in such areas uneconomic due to less favorable underlying economic conditions in those markets (e.g., lower population densities resulting in higher construction costs per capita) and where the number of attaching entities will be fewer.

48. Staff’s revenue requirement philosophy similarly lacks economic foundation. Staff’s proposed rules are based on the faulty premise that the revenue requirement associated with the public utility’s core electric services are properly recoverable in pole attachment rates charged

third-party attachers; to the contrary, as noted above, following well-established economic and policy guidelines, such costs are properly recoverable from the utility's ratepayers for whom that plant was primarily built to serve. Staff's proposed rules focus incorrectly on an accounting attribution of the utility's core electric services revenue requirement to third-party attachers as opposed to a truly economic attribution of pole attachment costs to attaching entities based on *causal responsibility*. The former accounting attribution approach serves the interests of the utility, whereas the latter economic attribution approach promotes broadband deployment and maximizes overall societal benefits.

49. Given their monopoly control over poles, utilities have the incentive to charge excessive, economically inefficient rates rather than an economically appropriate cost-based standard, such as marginal costs. One of the ways they have sought to justify higher rates is to point to the perceived "value" that attachers receive from the attachment. It has been established that the pole owner ends up being made "better off" under the current regulatory regime after an incremental cable attachment since the utility receives (through the combination of the cable rental rate and make-ready charges) well in excess of the marginal costs of the attachment and typically ends up with greater available pole capacity to rent or use for its own purposes. The fact that the utility is precluded by regulatory intervention from being able to extract additional "value" (or "benefit" using Staff's term of art) from attachers in the form of monopoly rents (rates in excess of a compensatory rate) cannot be considered as a valid opportunity cost from the standpoint of objective, economically appropriate cost-based standard.

50. To accept the utilities' position, as Staff appears to have done, that their inability to extract additional value over and above a competitive rate from attachers represents a real "cost" which the utilities are entitled, would enable and incent the utility to further exploit its monopoly ownership of the pole network, charge inefficiently high rates, and mismanage its pole space by seeking to exclude third-party attachers. This is precisely the behavior that would be expected of a utility with control of essential facilities if free from regulatory scrutiny. This behavior, however, produces outcomes directly opposite from those needed to foster competition and encourage deployment of advanced services by providers that require use of the utilities' pole

networks to effectively compete, and that would naturally be achieved if a competitive market for poles existed.

Staff's proposed cost attribution, like stand alone/avoided cost approaches, produces rates reflective of monopoly levels, and that are not just and reasonable under objective economic or legal just compensation standards.

51. Staff's proposed cost attribution approach produces rates in line with methodologies advanced by utilities and others that are based on the higher stand-alone or avoided costs of the attacher. In the case of pole attachments, because there is no competitively-functioning market for poles, there is no market process in action to drive down the costs of pole construction or any potential alternatives such as going underground to levels approximating economically-efficient marginal costs.²⁸ In the absence of free market conditions capable of constraining prices to more competitive levels, the responsibility falls to the regulator to impose pricing discipline through holding the utility to an economically-efficient marginal cost standard based on cost-causation principles.

52. Conversely, rental rates based on methodologies that serve as proxies for the hypothetical avoided cost to the attacher of stand-alone pole construction, such as Staff's, are not just or reasonable, because they embody a scenario where the utility, unconstrained by competitive market forces, is free to exploit its monopoly ownership of the poles. Under such a scenario, utilities are able to extract additional rent from captive attachers well in excess of the efficient or actual economic cost of the pole attachment, serving no valid economic or public policy purpose.

53. As a general matter, poles are extremely long-lived assets with little ongoing 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 utilities have not been deterred from investing in the appropriate amount of pole plant of the height, type and class they deem appropriate for their own operational needs. Cable operators and other third party attachers have not over-consumed

²⁸ A competitive market is defined by the existence of 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. Only under conditions approximating effective competition can market forces be relied on to bring rates down to levels consistent with marginal costs.

pole space as they would be required to pay for any over-consumption of pole space in the form of additional make-ready costs, including paying to install new poles. For the majority of poles that are not being replaced in any given year and enjoy long economic lives, replacement or stand alone 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 in order to serve their core electric utility service, costs are appropriately recoverable through regulated rates for those customers. For the poles that would not be replaced but for a third-party attacher, the costs are recoverable through make-ready charges imposed on the attacher, set unilaterally by the utility. If the third party attacher does not agree to pay the make-ready, the pole is not replaced and the attachment is not made. In effect, make-ready charges are replacement costs or stand alone costs applied at the individual pole level, and charging higher rental rates that reflect higher replacement or stand alone cost would only result in double cost recovery and an extraction of monopoly rents.

54. In addition to lacking any justification based on objective economic efficiency/cost-causation standards, pole rental methodologies based conceptually on hypothetical replacement or stand alone cost methodology also conflict with principles of just compensation, which require only that the utility be “in as good a position as it was before the taking of its pole space,” not better.²⁹ The combination of make-ready charges and the value of the upgrades to utility plant they fund, in addition to the cable rate, result in utilities being made better off following an attachment. Thus, rental rates that are even more excessive than those that already make the utility better off, such as proposed by Staff, are not just and reasonable, as required by Act 740, from the perspective of regulatory policy or just compensation criteria.

Staff’s proposed requirement to separate out certain administrative costs is an open invitation for double cost recovery, and would require full rate hearings to resolve.

55. Staff’s Proposed Rule 2.02(C) requires pole owners to “identify and separately account for the incremental engineering and administrative costs associated with a request for a Pole

²⁹ *FCTA* at 21, n. 10 (“The evidence also fails to prove that Cable Formula rents are insufficient to put Gulf Power in as good a position as it was before any taking of its pole space The Commission has already concluded that Cable Formula rates plus payment of make-ready expenses, provides compensation that exceeds just compensation. . . . Also, the Commission has twice rejected replacement cost methodology Therefore, if it were necessary to assess damages, replacement cost methodology would not be used.”) (internal citations omitted).

Attachment or Overlapping Permit and the cost of estimating Make-Ready Work.” This proposed rule is problematic at many levels, both conceptually and practically.

56. From a practical standpoint, to implement Staff’s rule, the utility would have to strip out costs from the publicly reported Administrative and General (A&G) accounts (Accounts 920-930) reported on FERC Form 1, and charge them directly to attachers. Detailed definitions of these FERC accounts are provided in Attachment 2 to this report. The proposed rule would, as a practical matter, force the Commission into annual pole attachment ratemaking for every utility as the only way “to verify that the costs associated with access . . . are just and reasonable,”³⁰ i.e., to ensure there was no double recovery of these costs. Obviously, this would substantially raise the costs, in terms of time and resources, to all the parties involved, and diminish the benefits to all of using a uniform formula approach in the first place. Indeed, the requirement to strip out individual expenses from these administrative accounts is contrary to the purpose of a formula, where parties can independently verify rates, simply and expeditiously. This provision creates a large risk of double-recovery, because without a full-blown rate case every time a pole owner changes rates (which is every year), no one would be able to know whether utilities are recovering the proper amount of rent/and or separate administrative fees.

57. As it is, the FCC Cable Formula has been overly generous in the inclusion of FERC expense accounts, producing a maximum rate that by the FCC’s own characterization is based on the upper range (the fully allocated cost) of the permissible costs identified in Section 224(d) of the Pole Attachments Act and that is well in excess of economically efficient marginal costs (all that would be required to avoid any cross-subsidy). In this context, the FCC has concluded that “[a] rate based upon fully allocated costs . . . *by definition*, encompasses all pole related costs *and additional charges are not appropriate.*”³¹ In rejecting a prior utility attempt to break out certain administrative costs similar to what Staff is now proposing, the FCC explained:

Included in the total plant administrative expenses is a panoply of accounts that covers a broad spectrum of expenses. A utility would doubly recover if it were

³⁰ Ark. Code Ann. § 23-4-1004(b).

³¹ *Texas Cable & Telecom. Ass’n v. Entergy Services, Inc.*, 14 FCC Rcd 9138, ¶ 10 (1999) (emphasis added).

allowed to receive a proportionate share of these expenses based on the fully-allocated costs formula and additional amounts for administrative expense. The allocated portion of administrative expenses covers any routine administrative costs associated with pole attachments. . . . Georgia Power has not argued persuasively that recovering these costs through direct reimbursement rather than through the annual rental rate is preferable or reasonable.³²

58. Keep in mind that utilities receive this fully-allocated cost based rate *in addition to* make-ready charges and other direct costs, such as pre-construction survey costs, designed to capture the incremental costs of attachment. Keep in mind also that it is the utilities themselves that determine the level of make-ready charges, and such charges typically include mark-ups for overhead. Whatever small amount of incremental cost relating to administrative costs that may not be captured in those make-ready charges are *more* than compensated for in the multitude of administrative costs recovered in the pole formula rate that have nothing to do with poles or pole attachment and that are therefore from an economics perspective not appropriately included in the rate formula, but which attachers nevertheless pay through the formula.

59. From a conceptual standpoint, once you open up the Pandora's box of separately accounting and charging for individual expenses currently aggregated within the publicly reported FERC accounts, you cannot ignore the fact that the FERC accounts (and the same holds true for the ARMIS reporting system for the incumbent local exchange companies) capture a great deal of costs that have nothing to do with poles or pole attachments. There are many costs contained within those accounts that are not *related* to pole attachment, and that the utility should not be allowed to recover from attachers, but are nevertheless included in the FCC formula for efficiency purposes, i.e., so that the FCC does not have to monitor whether the proper costs are "backed out" of a particular FERC or ARMIS account.

60. In particular, there are a number of expense accounts included in the administrative accounts at issue under Staff's proposed rule and incorporated in the carrying charge factor of the rate formula that fall into this category, i.e., costs that are – either entirely, or almost entirely – non-pole related expenses and that are properly *excluded* from the carrying charge factors based on

³² *CTAG v. Georgia Power Co*, 18 FCC Rcd. 16333 at ¶ 18 (2003).

fundamental economic principles of cost causation. These include Accounts 920 (administrative and general salaries, which cover officer salaries), 921 (office supplies and expenses), 926 (employee pensions and benefits), 930.1 (general advertising), and 930.2 (miscellaneous general). Full descriptions of these accounts are provided in Attachment 2. Maintenance is another area that includes many non-pole related expenses. A review of the definition of FERC Account 593 (see Attachment 2) confirms the inclusion of many non-pole related expenses.

61. From the standpoint of economic efficiency and to promote competition, the expenses captured in the carrying charge factor should include only those costs that vary directly with the use of poles by attachers, and conversely, exclude those that exist, and would continue to exist, independent of the presence of pole attachments. However, because the data required to cull out specific expenses in order to make such adjustments is not publicly reported or able to be verified and validated by other parties in the absence of a full rate investigation, as a policy matter, weighing the costs and benefits involved with the decision, it makes more sense to rely on the data publicly reported by the utilities in their FERC Form 1 or ARMIS Accounts.

62. In sum, because there is not the necessary level of granularity in the FERC or ARMIS accounting system, it may not be practically feasible to separate out every incremental cost associated with an attacher as proposed by Staff in the case of certain administrative expenses, and would, in any event undermine the very purpose of a formula and, thus, effective pole attachment regulation. Nor do I believe such an exercise is warranted, given the generous inclusion of costs provided in the pole formula rate over and above existing make-ready charges. However, to the extent it is decided to undertake such an exercise, then a similar effort must be made to remove all non-pole related expenses from the pole formula in accordance with economic principles.

THE FCC CABLE RATE FORMULA OFFERS SEVERAL SIGNIFICANT ADVANTAGES VIS-À-VIS STAFF'S PROPOSED RATE METHODOLOGY, AND PRODUCES A RATE THAT IS FULLY COMPENSATORY.

63. The allocation methodology embodied in the FCC cable rate formula which assigns indirect costs in proportion to direct costs and based on relative use or occupancy offers several distinct

and significant advantages vis-à-vis the per capita approach embodied in the telecom formula, and by extension, the rate formula proposed by Staff. The key advantages of the cable formula include the following:

- Greater consistency with the fundamental economic principles of cost causation;
- More administratively straightforward to implement and consistent in its application;
- Neutral with respect to both the level of, and the technology used to provide, the facilities-based competition that has emerged in the period following the Telecommunications Act of 1996; and
- More closely mimics the outcome of a competitive market with its resultant benefits to consumers of lower rates and a greater array of innovative and advanced service offerings.

64. As described earlier, and as explained in the legislative history of the 1978 Pole Attachments Act, the cost allocation approach embodied in the cable rate formula precisely follows cost causation principles, in a manner directly analogous to other well accepted, familiar contexts like an apartment house. As described in the legislative history:

The renter of one of the ten units pays the cost of that unit plus one-tenth of the cost of all common areas. He does not pay one-half the cost of the common areas just because only one other person occupies the other nine units, but rather he pays his one-tenth share of all the costs attributable to the building.³³

With these kinds of leasing analogies serving as models, Congress specifically designed the cable formula to allocate an appropriate share of the cost of the entire pole to cable attachers.³⁴

³³ 123 Cong. Rec. 5080 (1977) (Statement of Rep. Wirth).

³⁴ "Cable would pay its share of not just the costs of...usable space but of the total costs of the entire pole, *including the unusable portion* (below grade and between minimum clearance levels.) This allocation formula reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs

Consistent with these leasing analogies, the costs associated with a third party pole attachment is causally linked to the amount of space occupied by the third-party attachment, since those costs vary with the relative use or occupancy of space by those attaching entities and *not* according to the number of attaching entities.

65. By contrast, Staff's proposed formula, like the Telecom Formula on which it is based, by relying on the number of attaching entities (multiplied by a factor of two-thirds), introduces an artificial construct into the pricing formula – one that has no direct connection to the consumption of space on the pole or to any actual increase in cost burden placed on the utility or its ratepayers. For example, a telephone company occupying two feet of space could make two attachments on the pole, but under the Staff formula, the ILEC would be counted as a single entity and assigned the same portion of common costs as an entity occupying just one foot of space providing room for only one attachment. In the context of the leasing examples presented earlier, this would be analogous to charging the tenant occupying one floor in the office building the same amount of common costs as the tenant occupying two floors, as opposed to a more reasonable (smaller) proportionate share such as would be assigned under the Cable Formula.

66. Moreover, an economic reality of poles is that they can readily accommodate multiple attachers through the process of rearrangements and change-outs. The addition of another entity onto the pole does not result in the displacement or exclusion of another user or use by the utility. Thus, from an economic perspective, there is no underlying cost-causative rationale for allocating a common space on the pole on the basis of the number of attachers. By doing so, the total costs of pole attachment that any given attaching entity pays the utility is an arbitrary function of the number of attachers in a given service area (usually fewer in rural areas), a condition over which the attacher's own occupancy has no connection. Rather, the number of entities seeking attachment to any given set of utility poles has, and will continue, to vary from pole to pole, based on ever-changing market, regulatory, and technological factors that are largely beyond anyone's control and exceedingly difficult to predict.

of furnishing the service which has the greater amount of use." S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977) (emphasis added).

67. Because the number of attaching entities varies from pole to pole and service area to service area, the need to track the number of attaching entities adds a level of complexity and arbitrariness to the formula. Any such information is in the complete control of the utility, which also defeats the purpose of basing a formula on publicly verifiable information. The cable formula, which relies strictly on the square foot occupancy of an attachment to allocate the cost of the entire pole to an attachers and publicly verifiable information is more straightforward to implement and provides for a more consistent and predictable application of the pole attachment formula across service areas. These features are important to firms in making business case decisions to roll-out new services.

68. Another related benefit of the Cable Formula not being based on the number of attaching entities is that it does not effectively penalize firms adopting innovative new technologies, such as VoIP, which provide voice services by sending packets of information over existing wires, and therefore require no additional space on the pole and do not engender any new cost burden to the utility. In this important aspect, the Cable Formula is independent of, and hence more competitively neutral with respect to, the impact of technology and emerging competition on existing and prospective attachers than Staff's proposed formula.

69. Finally, and perhaps most importantly, from the standpoint of the Commission's objectives of promoting broadband deployment, economic theory is definitive in its preference for pricing as close to marginal cost as feasible. In this context, the cable rate, because it is much closer to (but still well in excess of) marginal cost than the telecom rate and most certainly Staff proposed rate which is even higher, it is the relatively more efficient rate – one that more closely mimics the outcome of a competitive market with its resultant benefits to consumers of lower rates and the provision of a greater array of innovative and advanced services.

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 based on a cost-causative (relative use) allocation of the utility's ongoing costs, plus a return) most closely approximates a competitive market rate.

71. It is a central tenet of economics that rates that recover the marginal costs of production are economically efficient and subsidy-free.³⁵ For a subsidy to occur, the utility must have unrecovered costs that *but for* the attacher would otherwise not exist. This is *not* the case where rental rates cover the incremental cost of attachment. From an economics standpoint, where rates cover the incremental or marginal cost of attachment, neither the utility 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).³⁶ Under these conditions, *there can be no valid claim of subsidy* or specific cost burden borne by the utility company, its ratepayers, or any other attacher as a result of the attachment, provided the rental rate exceeds the marginal cost of attachment as is indisputably the case with the existing cable formula rate. The economist's notion of cross-subsidy avoidance is consistent with the legal principle in takings law for just compensation.³⁷

**STAFF'S OVER-COMPENSATORY POLE RATE METHODOLOGY WILL
NEGATIVELY IMPACT DEPLOYMENT OF VOICE AND OTHER ADVANCED
BROADBAND SERVICES, MEANWHILE THERE IS NO EVIDENCE THAT
INCREASED POLE REVENUES WILL MEANINGFULLY REDUCE RATES FOR
UTILITY RATEPAYERS.**

72. Adopting pole rental rates that greatly diverge from an efficient competitive rate, as proposed by Staff, creates economic conditions far less favorable to those required to achieve the expressed goals of the State to promote broadband deployment. Pole attachments are an important and necessary input of production for cable operators. Having to absorb higher pole

³⁵ See, e.g., Paul A. Samuelson, *Economics*, Tenth Edition, McGraw-Hill Book Company, 1976 at 462-3.

³⁶ See, e.g., Bridger M. Mitchell, "COSTS AND CROSS-SUBSIDIES IN TELECOMMUNICATIONS," *The Changing Nature of Telecommunications/Information Infrastructure*, National Academy Press, Washington, DC, 1995. "A group of customers is being subsidized if their price is so low that the service supplier and its other customers would be better off if the service were discontinued. This circumstance occurs only when the increase in revenues to the [telephone] company from offering the service is less than the increased costs of providing it."

³⁷ "This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better." *Alabama Power*, 311 F.3d at 1369.

rents will reduce the cable industry's ability to meet financial and investment obligations including those related to the build out of infrastructure needed to support the widespread deployment of advanced information-age services and technologies, including VoIP services. Investment in marginal areas, such as rural areas of Arkansas, will be most notably impacted. Given the less favorable economic conditions in the more rural areas such as those associated with lower population densities, higher pole costs are likely to make construction in such areas uneconomic, notwithstanding the existence of surplus space on utility poles that would otherwise be available and readily utilized for deployment of advanced service and technologies.

73. While cable companies may not generally be in a position to flow through higher pole costs due to the increasing price-constraining competition they face from Direct Broadcast Satellite ("DBS") providers and other providers including ILECs and newer power company affiliates,³⁸ to the extent they are able to do in selected markets, it will raise the cost of broadband and VoIP services in those markets, thereby reducing the ability of consumers (who include electric distribution customers) to afford and enjoy the very broadband services that the Commission's policies are intended to encourage. Meanwhile, there is no evidence that increased pole revenue will result in any meaningful reduction of rates for residential electric services for which the utility remains the monopoly provider, but an increase in cable broadband and VoIP pole rents will materially impact residential price competition for voice and other advanced services offered in competitive markets.³⁹

74. Over the course of the many pole proceedings in which I have been involved, I have seen no evidence from utilities that demonstrate the process by which electric customers would receive an actual benefit if pole rentals from cable companies increase. In the period following the Telecommunications Act of 1996, electric utilities have increasingly been subject to lessened

³⁸ See, e.g., Federal Communications Commission, *Annual Assessment on the Status of Competition in the Market for Delivery of Video Programming*, Twelfth Annual Report, MB Docket No. 05-255, ¶¶ 6-7 (rel. March 3, 2006) (FCC Video Competition Report).

³⁹ Based upon data available from Charter Communications, Inc. in connection with the recent FCC Pole proceeding, increases in pole rental rates in the range of \$10 to \$17 could result in increases to the consumer (especially in rural areas) as high as \$4.95-\$8.66 per Internet subscriber per month and \$13.27-\$23.23 per voice subscriber per month. See Comments of Charter Communications, submitted March 7, 2007, FCC WC Docket No. 07-245, RM 11293, RM 11303, at 1.

forms of rate regulation in connection with the restructuring of that industry, and this is certainly the case for electric cooperatives whose operations are generally unregulated. Absent regular full-blown rate cases that would delve into the utility's records of accounting at level of granularity so fine as to be able to trace back an increase in pole rental revenues to a reduction in regulated rates, any claim that pole rental increases would actual result in lower electric rates is highly suspect, absent valid, corroborating evidence.

**STAFF'S PROPOSED DEFINITION OF INSUFFICIENT CAPACITY IS
INCONSISTENT WITH THE ECONOMIC REALITY OF POLES AND WOULD
EFFECTIVELY SHUT DOWN A CABLE OPERATOR'S ABILITY TO MAKE A NEW
ATTACHMENT.**

75. In addition to its over-compensatory pole attachment rate formula, Staff's proposed rules contain a number of provisions that also work to undermine the effectiveness of pole attachment regulation in stemming monopoly abuses. One such provision that is particularly harmful to a cable operator's ability to attach onto a utility pole is the definition of "Insufficient Capacity" as set forth in Staff's Proposed Rules and applied in Section 2.04 of those rules.

76. Staff defines "Insufficient Capacity" as "[t]he inability of a Public Utility pole owner to accommodate a new Pole Attachment or Overlapping without performing Make-Ready Work." Staff's definition comes right of out of the utility playbook used in connection with utilities' prior unsuccessful attempts to justify pole rates in excess of the FCC's regulated cable rate.⁴⁰ Because make-ready work is the normal and customary way in which a new attachment is accommodated on a utility pole, Staff's proposed definition of insufficient capacity" would enable utilities, *as matter of routine*, to deny third-party access to essential bottleneck utility pole facilities, making it nearly impossible for cable operators to make a new attachment or seek meaningful regulatory review of the denial of access. The huge barrier to third-party access that Staff's proposed definition would create has no economic or public policy justification whatsoever.

⁴⁰ See, e.g., *FCTA*, 22 FCC Rcd at ¶ 25.

77. Staff's definition of "insufficient capacity" essentially means that even if a pole owner is readily able to rearrange existing attachments (at the cost of the attacher) or change out a pole (at the cost of the attacher), just as the pole owner would do for itself, the pole owner may nevertheless deny access, if prior to that make-ready work, the third-party attachment could not be accommodated. This makes no logical sense since make-ready work is in fact the very process by which new attachments are accommodated – not only for third-party attachers, but for the utility itself as well. From an economics perspective, the only time there is truly insufficient capacity on a pole is in those limited instances where Make-Ready, including a pole change-out, is infeasible due to terrain, obstructions, zoning restrictions and other such objective conditions.⁴¹ Such instances exist, although it is only the rare exception that space cannot be rearranged or poles changed-out to make such accommodations. As recognized in a recent case before the FCC involving this very concept, "[w]hen capacity is available through rearrangement or expansion of a pole's height, *its capacity cannot be full* since there is no exclusion of another and no missed, foreclosed, or lost opportunity."

78. In this very real economic sense, pole capacity is neither static nor finite, but dynamic in nature, such that the sharing of poles does not generally result in either a physical or economic exhaustion of the shared resource. This is true even if the pole appears "crowded."⁴² Generally speaking, it is the fixed nature characteristic of most inputs that limit capacity or scale of operations. While all inputs are ultimately variable in the long run, what makes poles unique is their inherent ability to provide for greater effective capacity in the "shortest" of short-runs.

⁴¹ "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." See EB Docket 04-381, Complainants' Responses to Gulf Power's First Set of Interrogatories and Document Requests, Apr. 18, 2005, at 18.

⁴² 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, 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, as is typically the case with poles, then it is not at full capacity.

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.

79. Thus, there is no real scarcity of productive pole capacity. The notion of scarcity on a pole capable of make-ready work is a totally artificial construct created by the utilities in their efforts to obtain higher pole rents and/or deny third-party access. Indeed, the routine practice of utilities to accommodate additional pole attachments through make-ready work is the precise opposite of a state of resource exhaustion. After performing what is routine work on the pole (for which it is fully compensated by the incremental attacher through make-ready charges), the utility not only does not have to displace any existing attachment, or turn away a new attachment,, the power company is typically able to accommodate even *more* attachments after the routine make-ready work has been performed than it was before.

80. Accordingly, it makes no sense from an economics perspective to say the pole has insufficient capacity and to use such an assertion to either deny third-party access or to justify prices to those third-party attachers even further in excess of marginal cost based on scarcity value.⁴³ The relative infrequency of a true economic condition of “insufficient capacity” on poles has no substantive bearing on the validity of the underlying economic concept as it applies to poles.

81. Moreover, because make ready work is the vehicle by which utilities accommodate new attachments of their own, Staff’s proposed definition of “Insufficient Capacity” would appear to violate both federal and state law. Under federal law, the parties (utilities and third-party attachers) must agree that capacity is insufficient before any denial of access can occur, and such denials have to be applied by the utility in a non-discriminatory manner – meaning they would also apply to the utility’s *own* attachments as well as to those of third-parties. Arkansas’s pole

⁴³ In a recent case before the FCC, the utility [Gulf Power] argued that “a need to use make-ready to accommodate an attachment constitutes proof of full capacity.” Based on a full hearing record, the FCC’s Chief Administrative Law Judge rejected this notion, finding “[t]o the contrary, make-ready is the means of providing space for attachments on poles already having the capacity to expand, which is the case for practically all of Gulf Power’s poles.” *FCTA* at ¶25.

attachment law contains similar nondiscriminatory access provisions, and these are reflected in governmental policies promoting broadband.⁴⁴

STAFF'S PROPOSED RULES REGARDING POLE MODIFICATION ARE NOT FULLY CONSISTENT WITH KEY PRINCIPLES OF COST-CAUSATION AND SHOULD BE AMENDED TO INCLUDE SPECIFIC LANGUAGE APPLYING THESE PRINCIPLES TO POLE REARRANGEMENTS, AS WELL AS TO POLE CHANGE-OUTS.

82. As discussed above, the only way costs (and by extension rates based on those costs) can be “just and reasonable” in any meaningful sense is for those costs to be consistent with fundamental economic principles of cost-causation, where the entity causally responsible (i.e., the entity but for whose existence or action a cost would not have been incurred) is attributed those costs, but not materially more; Staff acknowledges this important principle of cost-causation as one of the guiding principles of its proposed rules (see Proposed Rules at 4,10), however, there are a number of instances where Staff is not consistent in its adherence to this key guiding principle.

83. One such instance occurs in connection with the attribution of pole modification costs set forth in Section 4.03 of the Proposed Rules. In subsection (B)(1), Staff properly applies the cost causation principle to pole change-outs, as set forth below:

“When an Attaching Entity, including the Public Utility pole owner, requires additional space which is not available on that pole, and the pole must be replaced by a taller pole, the entity causing the need for replacement shall pay for the replacement cost of such pole, including the cost of removing the old pole, less any salvage value plus the costs of transferring the facilities of all other attachers.”

84. Oddly, Staff does not apply this same principle to pole rearrangements, which, in addition to pole change-outs, is the normal and customary means by which new attachments (for the utility itself as well as third-parties) are accommodated on utility poles. In the absence of explicit

⁴⁴ See Ark. Code A.. § 23-4-1002.” Nondiscriminatory access for pole attachments,” see also 47 U.S.C. § 224(f), *Southern Company v. FCC*, 293 F.3d 1338 (11th Cir. 2002) at 1346-1349, and *Alabama Power*, 311 F.3d at 1361-63.

language applying cost-causation principles, given the utilities' monopoly control over poles, there is the very real risk that attachers could end up paying for all rearrangements, including those to accommodate other competitors, and also to deal with safety issues that they were not responsible for creating. Other state commissions that have certified authority over pole attachments have agreed.⁴⁵

85. Section 224, subsections (h) and (i), of the federal Pole Attachments Act⁴⁶ contain specific language to address this very issue, by establishing that once a party obtains access to a pole, that party may not be forced to incur any expense for activities undertaken that solely benefit another party, including the pole owner, unless the original party also benefits. The specific language contained in the federal statute should be adopted by the Commission as part of any rules governing pole attachments to ensure full adherence to cost-causation principles and also to principles of non-discrimination, as required by state and federal law. That language, in relevant part, is as follows:

From § 224, subsection (h):

[w]henver the owner of a pole . . . intends to modify or alter such pole . . . the owner shall provide written notification of such action to any entity that has obtained an attachment to such [pole] so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole . . . accessible.”

From § 224, subsection (i):

An entity that obtains an attachment to a pole . . . shall not be required to bear any of the costs of rearranging or replacing its attachment, if such rearrangement or replacement is required as a result of an additional attachment or the modification of an existing attachment sought by any other entity (including the owner of such pole. . . .

⁴⁵ The New York Public Service Commission agrees that “[i]f a legal attachment is made to a pole in compliance with safety standards, the legal Attacher should not be required to pay for rearrangement of its facilities for subsequent attachments,” including those of the pole owner. *Proceeding on Motion of the Commission Concerning Certain Pole Attachment Issues*, Order Adopting Policy Statement on Pole Attachments, 2004 N.Y. P.U.C. LEXIS 306 (2004) (“New York Pole Order”).

⁴⁶ 47 U.S.C. § 224(h)-(i).

**STAFF'S PROPOSED RULE EXEMPTING "VOLUNTARILY NEGOTIATED"
CONTRACTS FROM COMMISSION REVIEW MUST BE REJECTED IN FAVOR OF
EFFECTIVE REGULATORY INTERVENTION, GIVEN THE MONOPOLY POLE
OWNING UTILITY'S SUPERIOR BARGAINING POSITION VIS-À-VIS CAPTIVE
THIRD-PARTY ATTACHERS**

86. A utility's self-interested motivation, as monopoly owner of poles, is to artificially restrict the supply of pole space in order to charge an excessively high price. Unless the utility is subject to regulatory pricing standards based on well-established economic cost-causation 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 and control of the poles. The utility's incentive and ability to leverage its ownership and control of essential pole facilities has become even more heightened in recent years as the possibility of utilities directly competing with third party licensees has increased. It is only through effective regulatory intervention that pole rents remain constrained. Staff's proposed rule 1.04, effectively exempting existing utility/third-party agreements from Commission review, would give the pole-owning utility opportunity to act on its monopolist's impulses without fear of regulatory scrutiny, runs counter to good public policy, and conflicts with the clear language in the Arkansas statute authorizing the Commission to hear complaints pertaining to "disputes between a public utility and an entity over the implementation of an *existing* contract granting the entity access for a pole attachment."⁴⁷

87. By virtue of the former's ownership and control of existing pole networks, cable companies and other third party licensees negotiating pole rental fees do not enjoy even close to an equal bargaining position with regard to the setting of pole rates. The frequent suggestion by utilities that there is an equal bargaining position between itself and third party licensees over rents, or alternatively, a "free market" for poles, would require the existence of an established, active market for pole space in which cable and other third party attachers have realistic choices with regard to renting and/or providing their own pole space. Only under such conditions, where there are viable competitive alternatives for pole space available to third party attachers, would utilities not be in a position to charge exorbitantly high prices relative to cost. Rather, the utility

⁴⁷ See Ark. Code Ann. § 23-4-1004, "Authority of commission to hear complaints," emphasis added.

would be subject to the pricing disciplines of a competitive market, which would bid prices down toward cost. Such conditions do not exist in the real world.

88. The concept of a free market for poles is wholly inconsistent with the practical and economic realities of utility poles as essential facilities, and the behavior of utility owners in seeking to unilaterally impose rate increases of magnitudes many multiples greater than marginal cost. Given the leverage the utility company can bring to bear, any claim that third-party attachers have “freely negotiated” with the utility or that neither buyer nor seller is under any compulsion to buy or sell (a condition commonly used in the valuation literature to define a free market value) is without merit.⁴⁸

Transactions or even formal executed agreements between third-party attachers and utilities cannot be viewed as “voluntarily” negotiated or “free market” benchmarks.

89. Where competitive market conditions do not exist (as is the case with pole and conduit space leased from incumbent utilities), there are no competitive pressures to constrain prices charged by the seller to levels approximating marginal costs. Under such conditions, and absent effective regulatory scrutiny and intervention when necessary, the “free market” rate degenerates into an unregulated monopoly rate that incorporates “supra-normal” monopoly profit for the seller.

90. By practical necessity, firms, either early in their life cycles or in early or critical stages of their business plans, have little recourse but to accept rates well in excess of the regulated formula rate for access to essential facilities. This is the case even when those rates may not be sustainable in the long run in order for the firm to gain entry, establish a foothold in a market, or meet franchise and customer service requirements. The reality is one where third party attachers, with minimal bargaining clout, have had little practical choice but to generally accept the rates and terms for pole attachment offered by the utility, typically on a “take it or leave it” basis, in order to gain access to a bottleneck facility they need to provide service.

⁴⁸ “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.” *ACTA*, 16 FCC Rcd. 12209, at ¶ 55.

91. A common pattern for firms dependent on essential facilities under the ownership and control of incumbent utilities 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 or met their operational goals. The number of complaint proceedings and other litigation in recent years between utilities and third party attachers is clear evidence of this pattern. Given these real-world conditions, it would be incorrect to view transactions or even formal executed agreements between third-party attachers and utilities, as representative free market benchmarks over which the Commission's regulatory authority need not apply.

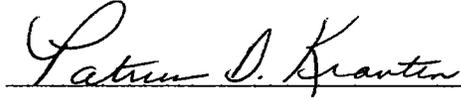
The option of regulatory intervention to settle contract disputes will serve to facilitate true negotiation among the parties and to promote lower pole rates.

92. The certainty of the FCC cable rate formula, along with the knowledge that unreasonable rates, terms and conditions will be reformed at any time during the "implementation" of a contract, provides the incentives for parties to resolve disputes over contract rates, terms and conditions and the manner in which those rates, terms and conditions are carried out without resort to formal proceedings.. If the Commission removes itself from the process in cases where agreements exist between the parties, the prices and terms of access to essential pole facilities are likely to relapse into the monopoly abuses that led to the regulation of poles in the first instance.

93. The option of regulatory intervention, including the review of existing unreasonable rates, terms and conditions in existing contracts, is critical to help ensure the negotiation process produces an outcome that effectively and efficiently balances the interests of the utility and the third-party attacher, and at the same time promotes the public policy goals of a competitive telecommunications market and the widespread deployment of advanced information-age services and technology.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 10, 2008

A handwritten signature in cursive script, reading "Patricia D. Kravtin", is written over a horizontal line.

Patricia D. Kravtin

ATTACHMENT 1

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 public 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-Term 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 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.

"Multi-product Transportation Cost Functions," MIT Working Paper, September 1982.

Record of Prior Testimony

2008

Before the **Federal Communications Commission**, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303, filed March 7, 2008, reply filed April 22, 2008.

2006

Before the **State of New Jersey Board of Public Utilities**, Office of Administrative Law, *in the Matter of 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, filed September 29, 2006; rebuttal filed November 17, 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

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*, Case 02-M-1636, 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 § 39.201 and 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 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'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.

1987

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.

1986-1982

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

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).

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.

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.

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

FERC Form 1 Account Definitions for Maintenance and Administration Expenses

Excerpted From:

[Code of Federal Regulations]

[Title 18, Volume 1, Parts 1 to 399]

[Revised as of April 1, 1999]

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**CHAPTER I--FEDERAL ENERGY REGULATORY COMMISSION, DEPARTMENT
OF ENERGY**

920 Administrative and general salaries.

A. This account shall include the 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.

B. This account may be subdivided in accordance with a classification appropriate to the departmental or other functional organization of the utility.

921 Office supplies and expenses.

A. This account shall include office supplies and expenses incurred in connection with the general administration of the utility's operations which are assignable to specific administrative or general departments and are not specifically provided for in other accounts. This includes the expenses of the various administrative and general departments, the salaries and wages of which are includible in account 920.

B. This account may be subdivided in accordance with a classification appropriate to the departmental or other functional organization of the utility.

Note: Office expenses which are clearly applicable to any group of

operating expenses other than the administrative and general group shall be included in the appropriate account in such group. Further, general expenses which apply to the utility as a whole rather than to a particular administrative function shall be included in account 930.2, Miscellaneous General Expenses.

ITEMS

1. Automobile service, including charges through clearing account.
2. Bank messenger and service charges.
3. Books, periodicals, bulletins and subscriptions to newspapers, newsletters, tax services, etc.
4. Building service expenses for customer accounts, sales, and administrative and general purposes.
5. Communication service expenses.
6. Cost of individual items of office equipment used by general departments which are of small value or short life.
7. Membership fees and dues in trade, technical, and professional associations paid by a utility for employees. (Company memberships are includible in account 930.2.)
8. Office supplies and expenses.
9. Payment of court costs, witness fees and other expenses of legal department.
10. Postage, printing and stationery.
11. Meals, traveling and incidental expenses.

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922 Administrative expenses transferred--Credit.

This account shall be credited with administrative expenses recorded in accounts 920 and 921 which are transferred to construction costs or to nonutility accounts. (See electric plant instruction 4.)

923 Outside services employed.

A. This account shall include the fees and expenses of professional consultants and others for general services which are not applicable to a particular operating function or to other accounts. It shall include also the pay and expenses of persons engaged for a special or temporary

administrative or general purpose in circumstances where the person so engaged is not considered as an employee of the utility.

B. This account shall be so maintained as to permit ready summarization according to the nature of service and the person furnishing the same.

ITEMS

1. Fees, pay and expenses of accountants and auditors, actuaries, appraisers, attorneys, engineering consultants, management consultants, negotiators, public relations counsel, tax consultants, etc.

2. Supervision fees and expenses paid under contracts for general management services.

Note: Do not include inspection and brokerage fees and commissions chargeable to other accounts or fees and expenses in connection with security issues which are includible in the expenses of issuing securities.

924 Property insurance.

A. This account shall include the cost of insurance or reserve accruals to protect the utility against losses and damages to owned or leased property used in its utility operations. It shall include also the cost of labor and related supplies and expenses incurred in property insurance activities.

B. Recoveries from insurance companies or others for property damages shall be credited to the account charged with the cost of the damage. If the damaged property has been retired, the credit shall be to the appropriate account for accumulated provision for depreciation.

C. Records shall be kept so as to show the amount of coverage for each class of insurance carried, the property covered, and the applicable premiums. Any dividends distributed by mutual insurance companies shall be credited to the accounts to which the insurance premiums were charged.

ITEMS

1. Premiums payable to insurance companies for fire, storm, burglary, boiler explosion, lightning, fidelity, riot, and similar

insurance.

2. Amounts credited to account 228.1, Accumulated Provision for Property Insurance, for similar protection.

3. Special costs incurred in procuring insurance.

4. Insurance inspection service.

5. Insurance counsel, brokerage fees, and expenses.

Note A: The cost of insurance or reserve accruals capitalized shall be charged to construction either directly or by transfer to construction work orders from this account.

Note B: The cost of insurance or reserve accruals for the following classes of property shall be charged as indicated.

(1) Materials and supplies and stores equipment, to account 163, Stores Expense Undistributed (store expenses in the case of Nonmajor utilities), or appropriate materials account.

(2) For Major Utilities, transportation and other general equipment to appropriate clearing accounts that may be maintained. For Nonmajor utilities, transportation and garage equipment, to account 933, Transportation Expenses.

(3) Electric plant leased to others, to account 413, Expenses of Electric Plant Leased to Others.

(4) Nonutility property, to the appropriate nonutility income account.

(5) Merchandise and jobbing property, to Account 416, Costs and Expenses of Merchandising, Jobbing and Contract Work.

Note C (Major only): The cost of labor and related supplies and expenses of administrative and general employees who are only incidentally engaged in property insurance work may be included in accounts 920 and 921, as appropriate.

925 Injuries and damages.

A. This account shall include the cost of insurance or reserve accruals to protect the utility against injuries and damages claims of employees or others, losses of such character not covered by insurance, and expenses incurred in settlement of injuries and damages claims. For Major utilities, it shall

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also include the cost of labor and related supplies and expenses incurred in injuries and damages activities.

B. Reimbursements from insurance companies or others for expenses charged hereto on account of injuries and damages and insurance dividends or refunds shall be credited to this account.

ITEMS

1. Premiums payable to insurance companies for protection against claims from injuries and damages by employees or others, such as public liability, property damages, casualty, employee liability, etc., and amounts credited to account 228.2, Accumulated Provision for Injuries and Damages, for similar protection.

2. Losses not covered by insurance or reserve accruals on account of injuries or deaths to employees or others and damages to the property of others.

3. Fees and expenses of claim investigators.

4. Payment of awards to claimants for court costs and attorneys' services.

5. Medical and hospital service and expenses for employees as the result of occupational injuries, or resulting from claims of others.

6. Compensation payments under workmen's compensation laws.

7. Compensation paid while incapacitated as the result of occupational injuries. (See Note A.)

8. Cost of safety, accident prevention and similar educational activities.

Note A: Payments to or in behalf of employees for accident or death benefits, hospital expenses, medical supplies or for salaries while incapacitated for service or on leave of absence beyond periods normally allowed, when not the result of occupational injuries, shall be charged to account 926, Employee Pensions and Benefits. (See also Note B of account 926.)

Note B: The cost of injuries and damages or reserve accruals capitalized shall be charged to construction directly or by transfer to construction work orders from this account.

Note C: Exclude herefrom the time and expenses of employees (except those engaged in injuries and damages activities) spent in attendance at safety and accident prevention educational meetings, if occurring during the regular work period.

Note D: The cost of labor and related supplies and expenses of administrative and general employees who are only incidentally engaged in injuries and damages activities may be included in accounts 920 and 921, as appropriate.

926 Employee pensions and benefits.

A. This account shall include pensions paid to or on behalf of retired employees, or accruals to provide for pensions, or payments for the purchase of annuities for this purpose, when the utility has definitely, by contract, committed itself to a pension plan under which the pension funds are irrevocably devoted to pension purposes, and payments for employee accident, sickness, hospital, and death benefits, or insurance therefor. Include, also, expenses incurred in medical, educational or recreational activities for the benefit of employees, and administrative expenses in connection with employee pensions and benefits.

B. The utility shall maintain a complete record of accruals or payments for pensions and be prepared to furnish full information to the Commission of the plan under which it has created or proposes to create a pension fund and a copy of the declaration of trust or resolution under which the pension plan is established.

C. There shall be credited to this account the portion of pensions and benefits expenses which is applicable to nonutility operations or which is charged to construction unless such amounts are distributed directly to the accounts involved and are not included herein in the first instance.

D. For Major utilities, records in support of this account shall be so kept that the total pensions expense, the total benefits expense, the administrative expenses included herein, and the amounts of pensions and benefits expenses transferred to construction or other accounts will be readily available.

ITEMS

1. Payment of pensions under a nonaccrual or nonfunded basis.
2. Accruals for or payments to pension funds or to insurance companies for pension purposes.
3. Group and life insurance premiums (credit dividends received).
4. Payments for medical and hospital services and expenses of employees when not the result of occupational injuries.
5. Payments for accident, sickness, hospital, and death benefits or insurance.
6. Payments to employees incapacitated for service or on leave of absence beyond periods normally allowed, when not the result

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of occupational injuries, or in excess of statutory awards.

7. Expenses in connection with educational and recreational activities for the benefit of employees.

Note A: The cost of labor and related supplies and expenses of administrative and general employees who are only incidentally engaged in employee pension and benefit activities may be included in accounts 920 and 921, as appropriate.

Note B: Salaries paid to employees during periods of nonoccupational sickness may be charged to the appropriate labor account rather than to employee benefits.

927 Franchise requirements.

A. This account shall include payments to municipal or other governmental authorities, and the cost of materials, supplies and services furnished such authorities without reimbursement in compliance with franchise, ordinance, or similar requirements; provided, however, that the utility may charge to this account at regular tariff rates, instead of cost, utility service furnished without charge under provisions of franchises.

B. When no direct outlay is involved, concurrent credit for such charges shall be made to account 929, Duplicate Charges--Credit.

C. The account shall be maintained so as to readily reflect the amounts of cash outlays, utility service supplied without charge, and

other items furnished without charge.

Note A: Franchise taxes shall not be charged to this account but to account 408.1, Taxes Other Than Income Taxes, Utility Operating Income.

Note B: Any amount paid as initial consideration for a franchise running for more than one year shall be charged to account 302, Franchises and Consents.

928 Regulatory commission expenses.

A. This account shall include all expenses (except pay of regular employees only incidentally engaged in such work) properly includible in utility operating expenses, incurred by the utility in connection with formal cases before regulatory commissions, or other regulatory bodies, or cases in which such a body is a party, including payments made to a regulatory commission for fees assessed against the utility for pay and expenses of such commission, its officers, agents, and employees, and also including payments made to the United States for the administration of the Federal Power Act.

B. Amounts of regulatory commission expenses which by approval or direction of the Commission are to be spread over future periods shall be charged to account 186, Miscellaneous Deferred Debits, and amortized by charges to this account.

C. The utility shall be prepared to show the cost of each formal case.

ITEMS

1. Salaries, fees, retainers, and expenses of counsel, solicitors, attorneys, accountants, engineers, clerks, attendants, witnesses, and others engaged in the prosecution of, or defense against petitions or complaints presented to regulatory bodies, or in the valuation of property owned or used by the utility in connection with such cases.

2. Office supplies and expenses, payments to public service or other regulatory commissions, stationery and printing, traveling expenses, and other expenses incurred directly in connection with formal cases before regulatory commissions.

Note A: Exclude from this account and include in other appropriate

operating expense accounts, expenses incurred in the improvement of service, additional inspection, or rendering reports, which are made necessary by the rules and regulations, or orders, of regulatory bodies.

Note B: Do not include in this account amounts includible in account 302, Franchises and Consents, account 181, Unamortized Debt Expense, or account 214, Capital Stock Expense.

929 Duplicate charges--Credit.

This account shall include concurrent credits for charges which may be made to operating expenses or to other accounts for the use of utility service from its own supply. Include, also, offsetting credits for any other charges made to operating expenses for which there is no direct money outlay.

930.1 General advertising expenses.

This account shall include the cost of labor, materials used, and expenses incurred in advertising and related activities, the cost of which by their content and purpose are not provided for elsewhere.

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ITEMS

Labor:

1. Supervision.
2. Preparing advertising material for newspapers, periodicals, billboards, etc., and preparing or conducting motion pictures, radio and television programs.
3. Preparing booklets, bulletins, etc., used in direct mail advertising.
4. Preparing window and other displays.
5. Clerical and stenographic work.
6. Investigating and employing advertising agencies, selecting media and conducting negotiations in connection with the placement and subject matter of advertising.

Materials and Expenses:

7. Advertising in newspapers, periodicals, billboards, radio, etc.
8. Advertising matter such as posters, bulletins, booklets, and related items.
9. Fees and expenses of advertising agencies and commercial artists.
10. Postage and direct mail advertising.
11. Printing of booklets, dodgers, bulletins, etc.
12. Supplies and expenses in preparing advertising materials.
13. Office supplies and expenses.

Note A: Properly includible in this account is the cost of advertising activities on a local or national basis of a good will or institutional nature, which is primarily designed to improve the image of the utility or the industry, including advertisements which inform the public concerning matters affecting the company's operations, such as, the cost of providing service, the company's efforts to improve the quality of service, the company's efforts to improve and protect the environment, etc. Entries relating to advertising included in this account shall contain or refer to supporting documents which identify the specific advertising message. If references are used, copies of the advertising message shall be readily available.

Note B: Exclude from this account and include in account 426.4, Expenditures for Certain Civic, Political and Related Activities, expenses for advertising activities, which are designed to solicit public support or the support of public officials in matters of a political nature.

930.2 Miscellaneous general expenses.

This account shall include the cost of labor and expenses incurred in connection with the general management of the utility not provided for elsewhere.

ITEMS

Labor:

1. Miscellaneous labor not elsewhere provided for.

Expenses:

2. Industry association dues for company memberships.
3. Contributions for conventions and meetings of the industry.
4. For Major utilities, research, development, and demonstration expenses not charged to other operation and maintenance expense accounts on a functional basis.
5. Communication service not chargeable to other accounts.
6. Trustee, registrar, and transfer agent fees and expenses.
7. Stockholders meeting expenses.
8. Dividend and other financial notices.
9. Printing and mailing dividend checks.
10. Directors' fees and expenses.
11. Publishing and distributing annual reports to stockholders.
12. Public notices of financial, operating and other data required by regulatory statutes, not including, however, notices required in connection with security issues or acquisitions of property. For Nonmajor utilities, transportation and garage equipment, to account 933, Transportation Expenses.

.....

593 Maintenance of overhead lines (Major only).

This account shall include the cost of labor, materials used and expenses incurred in the maintenance of overhead distribution line facilities, the book cost of which is includible in account 364, Poles, Towers and Fixtures, account 365, Overhead Conductors and

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Devices, and account 369, Services. (See operating expense instruction 2.)

ITEMS

1. Work of the following character on poles, towers, and fixtures:

- a. Installing additional clamps or removing clamps or strain insulators on guys in place.
- b. Moving line or guy pole in relocation of pole or section of line.
- c. Painting poles, towers, crossarms, or pole extensions.
- d. Readjusting and changing position of guys or braces.
- e. Realigning and straightening poles, crossarms, braces, pins, racks, brackets, and other pole fixtures.
- f. Reconditioning reclaimed pole fixtures.
- g. Relocating crossarms, racks, brackets, and other fixtures on poles.
- h. Repairing pole supported platform.
- i. Repairs by others to jointly owned poles.
- j. Shaving, cutting rot, or treating poles or crossarms in use or salvaged for reuse.
- k. Stubbing poles already in service.
- l. Supporting conductors, transformers, and other fixtures and transferring them to new poles during pole replacements.
- m. Maintaining pole signs, stencils, tags, etc.

2. Work of the following character on overhead conductors and devices:

- a. Overhauling and repairing line cutouts, line switches, line breakers, and capacitor installations.
- b. Cleaning insulators and bushings.
- c. Refusing line cutouts.
- d. Repairing line oil circuit breakers and associated relays and control wiring.
- e. Repairing grounds.
- f. Resagging, retying, or rearranging position or spacing of conductors.
- g. Standing by phones, going to calls, cutting faulty lines clear, or similar activities at times of emergency.
- h. Sampling, testing, changing, purifying, and replenishing insulating oil.
- i. Transferring loads, switching, and reconnecting circuits and equipment for maintenance purposes.
- j. Repairing line testing equipment.
- k. Trimming trees and clearing brush.

1. Chemical treatment of right of way area when occurring subsequent to construction of line.

3. Work of the following character on overhead services:

a. Moving position of service either on pole or on customers' premises.

b. Pulling slack in service wire.

c. Retying service wire.

d. Refastening or tightening service bracket.

EXHIBIT A

**Before the
Arkansas Public Service Commission**

**In the Matter of a Rulemaking
Proceeding to Establish Pole
Attachment Rules In Accordance
With Act 740 of 2007**

Docket No. 08-073-R

REPLY REPORT OF

PATRICIA D. KRAVTIN

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INTRODUCTION AND SUMMARY

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. On May 13, 2008, I submitted a Report in this proceeding on behalf of the Arkansas Cable Telecommunications Association (Kravtin Report). A detailed resume summarizing my educational background and experience was provided in Attachment 1 to that report. I was asked by Counsel for the Arkansas Cable Telecommunications Association to review comments filed by certain of the electric utilities, including the Electric Cooperatives of Arkansas (Electric Cooperatives), Entergy Arkansas, Inc. (AEI), and Southwestern Electric Power Company (SWEPCO) in this proceeding and to prepare a reply report responding to these comments concerning matters addressed in my earlier report. This reply report addresses the following:
 - From an economics and public policy standpoint, the existing cable rate is the best overall choice for a pole attachment rate that will promote competition and broadband deployment and will produce just and reasonable rates as required by Act 740.

 - By assigning costs of the entire pole (both usable and unusable space) in direct proportion to the attachers' relative use of the pole, the FCC cable rate is more economically efficient than both the FCC telecom rate and Staff's proposed rate which is even higher. The cable formula also offers many other key economic and policy advantages over the telecom formula, Staff's proposed formula, and any of the other methodologies advocated by the electric utilities.

 - Pole attachments are an essential input of supply for cable operators, CLECs, and other broadband providers, and the more the pole rate deviates from the rate that would be determined in a competitive market, consumers – which include the utilities' ratepayers – will reap fewer of the benefits of a competitive market.

- Based on principles of economics, one cannot assume it to be more fair or reasonable to share common costs equally among users as opposed to proportionally – indeed there are compelling reasons why in the case of pole attachments it is neither.
- The electric utilities offer no substantive economic evidence to counter the widely accepted tenet of economics that a rate for a service is not subsidized if it covers the provider's marginal costs, i.e. the additional costs incurred by the provider that would not exist “but for” the provider's offering of that particular service.
- The cable rate greatly exceeds marginal cost, and this is not even taking into account the substantial sums of make-ready payments by cable operators and others that already reimburse pole owners for the costs of hosting third-party attachments.
- Given that utilities can be shown to be financially better off as a result of hosting an additional attachment, it cannot rationally be argued that the rate is subsidized; under the utilities' distorted reasoning, the term “subsidy” means a rate that is just below a monopoly (economically inefficient and illegal) level, or does not reflect an equal assignment of unusable space.
- Claims by the electric utilities that they have had to absorb the costs of taller poles required to accommodate third-party attachments are unfounded, as are utilities' claims of other “hidden” or unreimbursed costs associated with third-party attachments.
- The anomalous pricing approaches advocated by the utilities suffer from a common set of overarching flaws, including: (1) reliance on stand alone or avoided costs to set pole rental rates instead of actual costs; (2) pole space used by and useful to the pole owning utilities is improperly attributed to attachers; (3) the sharing of common costs in equal or disproportionate measure vis-à-vis the pole owner and the actual space used by the attacher; and (4) lack of economic sense and practical application.

- Changes proposed by the electric utilities to Staff's proposed rate formula – which already results in a substantial over-allocation of costs to third-party attachers – are unjustified and would have the effect of inappropriately allocating an even greater percentage of pole costs to third party attachers and moving the rate in the opposite direction of that needed to produce a just and reasonable rate under Act 740 and to promote broadband.
- Contrary to claims by electric utilities, the safety space is not of “equal” benefit to owners and attachers, and the costs associated with this space are properly treated for purposes of cost attribution as direct costs of the utility that are incurred regardless of the presence of third-party attachers. Indeed, if such safety space is too small for a safe attachment, associated costs are usually reimbursed through make-ready paid by the new or next attacher.
- The electric utilities' argument that 100% of the safety space be attributed to attachers, by eliminating the two-thirds factor which is applied under the telecom and Staff formulas to unusable costs before it is apportioned among attaching entities, is totally nonsensical from an economics and public policy perspective.
- The current *over-recovery* of pole costs by utilities relative to their own proportional use of space on the pole is a key reason why the Commission should continue to include the utility as an attaching entity.
- The electric utilities' focus on one element of the capital cost calculation in isolation (i.e., Accumulated Deferred Income Taxes), without consideration of other changes that would dramatically reduce the capital costs included in the rate formula, should be rejected. Moreover, while there is nothing preventing the utilities from rebutting Staff's presumptive rate of return on any grounds, if the utilities are not satisfied with the actual rate of return set by the Commission, the utilities must be willing to undergo a full blown rate case to set any new rate of return.
- The electric utilities' objection to Staff's application of the cost causation principle to pole change-outs in Proposed Rule 4.03(b)(1) directly conflicts with the principle of cost

causation, results in excess cost recovery by the utility, and would impose a significant and unjustified financial penalty on third-party attachers.

- Allowing the utilities to impose separate, additional charges relating to the utility's costs to perform joint inspections – even while they acknowledge that they recover the cost of inspecting their own plant through FERC Maintenance Account 593 which is included in the carrying charge portion of the rental rate – would permit double recovery of such costs. In addition, the utilities have the ability through make ready charges to recover non-recurring costs associated with third party attachments, making possible yet another opportunity for double recovery of these costs.

THE FCC CABLE FORMULA, WITH ITS RELATIVE-USE ALLOCATION METHODOLOGY, IS THE BEST OVERALL CHOICE FOR A REGULATED POLE ATTACHMENT RATE

The FCC cable formula's relative-use approach produces a more economically efficient rate than the per-attacher approach of the FCC telecom formula or the Staff proposal.

3. The existing FCC cable rate is a logical choice from an economics and public policy standpoint for a regulated pole attachment rate. The cable formula has withstood the test of time and offers an ease of administration and implementation without the problems and complications associated with the FCC telecom formula or any of its variants, such as the one Staff is proposing. Even the utilities recognize the cable rate's relative-use based allocation methodology is "easy to calculate" whereas disputes concerning calculation of the number of attachers arise in connection with the telecom's formula per-attacher approach (Electric Cooperatives at 5, 7).
4. The cable rate formula has a number of other desirable attributes vis-à-vis the telecom rate formula (and by extension the Staff proposal which is based on that formula) that individually and collectively produce a maximum rate that more closely mimics the outcome of a competitive market, including lower rates to consumers and the provision of a greater array of innovative and advanced service offerings (*see* Kravtin Report at 33-37). In particular, by assigning costs of the entire pole (both usable and unusable space) in direct

proportion to the attacher's relative use of the pole, the FCC cable formula produces a more economically efficient rate than the FCC telecom formula, and the proposed Staff formula which, by design, will produce an even higher rate (*see* Kravtin Report at 11-15, 21-22).

5. The more that the rate for pole attachments, an essential input of supply for cable operators, CLECs, and other broadband providers, deviates from the rate that would be determined in competitive market (i.e., one based on the marginal costs of attachment), consumers will reap fewer of the benefits of a competitive market for broadband services (*see* Kravtin Report at 36-38). For these reasons, the cable rate is the best overall choice for a regulated pole attachment rate. As discussed further below, the utilities are proposing further changes to Staff's formula which would produce rates for pole attachments that are even more excessive by established economic and public policy standards, and certainly not just and reasonable under Act 740 or by any other measure.
6. Contrary to assertions by the utilities (*see* Electric Cooperatives at 2, 8), the rates produced by the cable formula is a not an unexplainable holdover from cable's infancy as an industry. Rather, it reflects a deliberate policy, reaffirmed by the FCC, the courts, and the Congress many times since the passage of the initial Pole Attachments Act, and in conjunction with and subsequent to implementation of the 1996 Telecommunications Act, to address the continuing bottleneck control of pole facilities by electric utilities, and the need to ensure access to this essential facility at a cost-based non-monopoly rate in order to promote national goals of competition and broadband deployment (*see* Kravtin Report at 8-9).

Utilities offer no substantive economic evidence to support their assertions that the cable rate is a subsidized rate.

7. It is quite remarkable that the utilities put forth no substantive economic analysis to challenge the economically efficient cable formula or support the much higher rates that Staff's proposed formula would produce. Instead, their rate justification relies totally on unsupported assertions that the FCC rate formulas subsidize third-party attachers, a notion that has been explicitly rejected by the FCC, state commissions, and the courts, as addressed in my earlier report (*see* Kravtin Report at 12-13, and at 38-39 demonstrating that the cable formula does *not* subsidize cable at the expense of electric consumers).

8. Contrary to claims by the utilities, the cable rate formula's relative use approach properly attributes the costs of poles to third-party attachers and does not produce a subsidized rate. The cable rate provides just compensation well in excess of a competitive market rate, as repeatedly found by the FCC and the courts, and by no applicable economic, regulatory, or public policy standard can be considered "subsidized" (*see* Kravtin Report at 13, 30, 37). While the utilities use the word "subsidy" repeatedly in their comments,¹ they have not presented any substantive economic analysis to support their claim or to refute well-established economic reasoning or judicial analysis.

9. As discussed further below, the utilities appear to be using the term "subsidy" synonymously with any rate that does not reflect an "equal" or what they deem to be a "full" sharing of the costs of the utility's pole network. The Electric Cooperatives (at 10) argue that third party attachers are being "subsidized," because the utilities bore the costs of constructing the pole network in the first place. This concept has no validity in practical or economic terms, especially when the substantial sums of make-ready charges paid on an up-front basis by cable operators and other third-party attachers for the additional costs of hosting an attachment, including the costs of replacing and rearranging of poles, are properly accounted for. The Electric Cooperatives reluctantly acknowledge the fact that third party attachers "often will pay to replace a pole if it is too short to accommodate their attachments," albeit in a footnote (Electric Cooperatives at 10, note 2), yet neither this nor any of the well established economic and legal principles stop them from making the discredited subsidy argument in the first place. These established principles include:

¹ *See, e.g.*, Cooperatives at 10: "One measure of the enormous *subsidy* already provided to attachers by electric utility pole owners is apparent when one considers that cable companies and competitive local exchange carriers ("CLECs") are not required to build their own distribution systems." (*emphasis added*)

- It is a widely acknowledged tenet of economics that a rate is not a subsidized rate if it covers the provider's marginal costs,² and these are precisely the types of costs that are recovered in the make-ready charges paid by cable operators and other third parties. Annual rental payments based on the cable rate formula provide payments to the pole owner *over and above* those make-ready charges (*see* Kravtin Report at 10, 23, 31-33).
- It is unquestioned (*see* Kravtin Report at 11-13) that the utility pole owner ends up decidedly "better off" after an incremental cable attachment because the pole owner recovers all its additional costs of hosting a third-party attachment through make-ready, *plus* it receives a contribution to its expenses including a return on investment (or in the case of cooperatives, their cost of debt) through rental payments, *and* it has greater available pole capacity to use itself or to rent to others. Given that the utilities are financially better off as a result of hosting an additional attachment, it cannot rationally be argued that the rate for such additional attachments is subsidized. Any claim by utilities that it has had to absorb the costs of taller poles required to accommodate attachments (*see* Electric Cooperatives at 10) is thus baseless and contradicted by their own statement on that very point on the same page (at note 2) acknowledging that third-parties pay for taller poles and those third-parties then pay rent to attach to the poles they bought for the utility.
- The economist's notion of cross-subsidy avoidance is consistent with the legal principle in takings law for just compensation, which is: (1) the standard of marginal cost as just compensation, and (2) the fact that the cable formula rate provides "for much more than marginal cost" and therefore "necessarily provides just compensation."³

² Marginal costs in this context are defined as any additional costs incurred by the utility in order to accommodate or host a third-party attachment that would not exist "but for" the presence of the particular third-party attachment.

³ "This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better." *Alabama Power v. FCC*, 311 F.3d 1357, 1369 (11th Cir. 2001). Only under a very limited set of exceptions, which the FCC's Chief Administrative Law Judge recently found did *not* exist in the vast majority of cases, would a pole owner be allowed to recover a pole attachment rate in excess of marginal cost (other than the regulated cable formula rate)

Utilities fail to identify so-called “hidden” costs associated with third-party attachments that are allegedly not recovered.

10. Perhaps because the utilities are unable to effectively counter evidence that the current cable rate in conjunction with make ready payments more than recovers the marginal costs of attachment and provides just compensation to utility pole owners, the utilities resort to making claims there are so-called “hidden” costs that are not recovered in either the rental rate or make ready charges received from third-party attachers (*see* Electric Cooperatives at 10). Such claims are simply not credible. First, it is noteworthy that the utilities do not actually identify any specific costs that are unrecovered from attachers. Rather, the utilities present only vague assertions of “additional operating and maintenance costs” and of it being more “difficult” to own and maintain poles.
11. Notwithstanding the lack of any specific evidence to support their claims, as a general proposition, the type of costs that the utilities are presumably alluding to as “hidden” costs fall into one of two basic categories, neither of which are appropriately considered as “hidden.” Such costs are either (1) recoverable from third parties in the form of make-ready, through indemnification provisions, or in the pole-related expenses that form a significant portion of the calculated rental rate, including administrative and maintenance costs; or (2) direct costs associated with the utilities’ core electric business and therefore properly recoverable from utility ratepayers and not third-party attachers.
12. Because make ready charges are set unilaterally by the utility and generally in the absence of regulatory scrutiny, it is unclear why electric utilities would allow any material “hidden” costs in connection with a third-party attachment to go unreimbursed (*see* Kravtin Report at 30). Where a taller pole is needed to accommodate a third party attacher, that attacher pays for the pole through make ready charges, as acknowledged by the utilities themselves (*see* Electric Cooperatives at 10, footnote 2). The same would be true of costs associated with pole rearrangements needed to accommodate a third-party attachment that are also included in make-ready charges.

13. Moreover, electric lines and ancillary equipment are by far the heaviest of all attachments, generating stresses and height requirements that far exceed those of third-party attachments (*see* Kravtin Report at 22-23). Following cost causation principles, any such additional costs engendered by the taller poles are not “hidden costs” of third-party attachments, but costs that would exist independently of the existence of third-party attachments and properly attributable to the utility’s core electric business, for which the pole network has been designed and maintained.
14. Furthermore, because third-party attachers are generally required to indemnify pole owners from additional liabilities associated with their attachments, and provide insurance and bonds with respect to potential liabilities, the utility cannot credibly claim any “hidden costs” associated with any higher risk associated with accommodating third-party attachers. In addition to indemnification, bond and insurance requirements, the rental rate formula also provides for recovery of certain costs relating to the pole owners’ insurance to protect against injuries and damages (*see* definition of FERC Accounts 924-925 as identified in Kravtin Report, Attachment 2).

The utilities’ rationale for requiring third party attachers to pay an equal share of the unusable space on the pole is based on a number of glaring fallacies.

15. As mentioned above, the primary basis upon which the utilities rest their claim that third-party attachers are being subsidized under the cable rate formula (and to a lesser degree under the telecom formula per-attacher approach) is the notion that third-party attachers are not paying an equal share of the unusable space (i.e., common costs) of the poles, given what the utilities allege are their equal “benefit” from such space (*see, e.g.,* Electric Cooperatives at 9, EAI at 23). The utilities’ argument in support of an equal sharing of costs is based on a number of erroneous and/or unproven premises.
16. First, an equal per capita attribution of common costs – such as the unusable space on the pole – is not necessarily the most economically efficient method of attributing such costs. From an economics perspective, it critically depends upon the underlying nature of the costs in question. In the case of pole attachments, an equal assignment of common costs is *not*

economically efficient, any more so than the assignment of an equal share of an office building's common costs would be to all tenants, regardless of how much office space each actually occupies within the building (*see* Kravtin Report at 34-36, citing applications in various sectors of the economy, including the commercial real estate market as identified by Congress in the legislative history in connection with the initial adoption of pole rate regulation). Because of the inherent properties of poles, a relative use approach to attributing common costs such as the cable formula provides is much more consistent with the fundamental principles of cost causation and just and reasonable rate standards (*see* Kravtin Report at 22-27).

17. Indeed, it cannot be assumed that an equal allocation of common space to third-party attachers results in a more "fair" sharing of costs. EAI (at 21) notes its agreement with Staff's statement that "[t]he public utility pole owner recovers its investment in public utility poles through a combination of its rates for utility service and charges to attaching entities." This statement and similar statements to this effect (*see* EAI at 22) incorrectly presume that third-party attachers somehow bear equal causal responsibility for the incumbent utility's existing pole network, so as to justify an equal sharing of the utility's revenue requirement associated with pole investment from a cost accounting point of view.
18. The utilities' pole networks were built (decades ago) and maintained under franchises granted by local authorities for the express purpose of providing consumers with core electric services. Those consumers, as ratepayers of public utility services, have already paid for the investment in the incumbent utility pole networks, as is appropriate, given those networks were built and maintained on their behalf. Consistent with this historical reality, the costs of the utilities' pole network are properly and fully recoverable from those ratepayers and have been so recovered in the past. Currently, and in the future, any additional third-party service provided over the utility's pole network are truly incremental to the provision of the core electric services by any objective standard and also helps recover costs the utility incurred and would incur regardless of the presence or absence of third-party attachments.
19. In this historical context, the appropriate benchmark from an economics and public policy perspective, against which to evaluate the "fairness" or reasonableness of a pole formula, is

not what *accounting “share”* of the core electric revenue requirement that ratepayers should pay for versus third-party attachers. Rather, it is the relationship of the pole attachment rate to any *additional economic* cost the utility incurs – over and above the core electric revenue requirement which the utility is authorized to and fully recovers from ratepayers – as a direct consequence of the existence of third-party attachments. As long as third-party attachers pay in excess of the marginal costs of their attachment (as occurs under the cable rate), the utility and its ratepayers are better off than they would have been in the absence of third-party attachments, and a fair and efficient outcome occurs. To allow the utilities to charge a proposed rate in excess of marginal costs enables the utilities to unfairly leverage their monopoly control of poles, which is itself an artifact of its historical franchise to provide widespread electric services, and contrary to the purpose of pole attachment regulation.

20. Only by inappropriately shifting the paradigm further away from the historical and economic realities of utility pole investment, as the utilities propose, can one talk about equality of cost sharing between ratepayers and attachers as being a “fair” or “reasonable” goal of pole attachment rates. Using the appropriate economics and public policy benchmark, the notion of sharing costs equally between ratepayers and attachers has no value other than to serve the pecuniary interests of the pole owning utility at the expense of consumers of broadband services, including the very ratepayers the utilities falsely suggest will necessarily derive some benefit from “cost sharing” with attachers.
21. This point highlights two more fallacies in the ratepayer vs. attacher cost sharing paradigm advanced by the utilities. The first fallacy is the notion that the utilities’ ratepayers will stand to benefit in any concrete way from any increased sharing of common pole costs with attachers. As discussed in my initial report (at 38-39), I have seen absolutely no evidence from utilities that would demonstrate the process by which electric customers would receive an actual benefit if pole rentals from cable companies increase. Similarly, I have seen no evidence from the electric cooperatives that the excessive pole rates have directly impacted electric rates. Indeed, it is highly unlikely that the utilities could make such a case here (not that they have even tried to in their comments), in the absence of the kind of regular full-blown rate cases that delve into the utility’s records of accounting at the level of granularity

that would be needed to trace back an increase in pole rental revenues to a reduction in regulated electric rates.

22. The second fallacy is the notion that the subscribers of the utilities' core electric services are an inherently different population from the consumers of the third party attachers' communications services. This is simply not the case. Consumers of broadband and electric services are often one and the same, and they will benefit from the lower prices and the more widespread availability of advanced broadband services that an efficient, marginal cost-based attribution of utility pole investment to third-party attachers will promote. Conversely, they all stand to be harmed by any significant increase in pole rental rates (see Kravtin Report at 37-38).
23. The utilities' analogy (see Electric Cooperatives at 11) between the shared use of a car (where users "chip in some small percentage...for gas and other expenses" while the owner pays the "full price of a car" that is more expensive than the owner needs) and the shared use of utility-owned poles is a silly one that breaks down at many levels.⁴ Among the many flaws in the attempted analogy is that the utilities' car analogy blatantly ignores the fact that the utility's consumers are also consumers of the third-party services, such that those consumers (and society as a whole) stand to gain from the utility owner's charging a lower, efficient third-party rental rate that encourages the shared use of the utility's asset versus a higher, monopoly level rate that discourages such use (see Kravtin Report at 11). The utilities' car analogy also ignores the natural monopoly/essential facility aspect of the owner's asset, i.e., the fact that no other entity other than the utility was granted permission

⁴ First, the poles to which third-parties are attaching are more like "pre-paid pre-owned" not "brand new." Any brand new poles placed for the specific benefit of a third-party attacher are paid for by the third-party attacher through make ready charges. Second, the utility has not had to pay "full price" for the poles in any real economic sense since the utility, pursuant to governmental authority, is fully reimbursed dollar for dollar for the cost of the pole network by its ratepayers for whose use the government allowed the utility the sole right to build the pole network in the first place. Third, the cost of any expensive "options" (e.g., extra height) purchased for the benefit of a third-party or any other out of pocket expenses incurred by the utility because of the third-party is subject to direct reimbursement from the attacher through make-ready charges. Moreover, the owner's claim that the poles being placed are taller because of the accommodation of the third-party is belied by the fact the poles being placed by the utility are for the most part "standard" 40 feet poles. Fourth, because the accommodation of a third-party attacher does not as a rule displace any other use or user from the pole, there is no loss to the owner associated with accommodating a third-party attacher. In such a scenario, the "owner" is clearly better off to have the third party attacher "chip in some small percentage" toward covering the fixed expenses of the asset (especially considering the

by the government to build the original pole network (i.e., purchase and operate the car on city streets) and that practical conditions prevent any new entity from replicating that network (see Kravtin Report at 7-10). The utilities' failed analogy is consistent with their persistent, yet highly flawed, attempts to set rental rates at levels that reflect stand alone or avoided costs, notwithstanding the hypothetical nature and inapplicability of such costs to third-party pole attachments.

A hypothetical stand-alone or avoided cost rationale is not valid for shared utility poles.

24. The utilities' primary rationale for the equal sharing of common costs is based on the concept of stand alone or avoided costs similar to the costs of pole construction or underground installation that a third-party attacher would hypothetically face if it built its own pole network (see SWEPCO at 5; EAI at 23-24). Given the existing practical impediments to building a duplicate pole network, it is incredibly disingenuous to suggest that cable companies and others strategically chose to "piggy-back" (see Electric Cooperatives at 10, 22) onto the electric utilities' network versus build a network of their own. The utilities' ownership and control of the existing pole network is an artifact of history and not any special skills, talents or entrepreneurship on the part of the utility. Indeed, the only entities in this proceeding that face risk associated with their investment are the private cable, telecom and broadband companies.

25. Even the utilities themselves recognize the inherent practicality and reasonableness of third-party attachers making use of existing utility pole networks.⁵ Yet, they persist in seeking to apply a stand-alone cost standard to the pricing of shared pole attachments, notwithstanding the inapplicability of such a standard, because of the prohibitive "rates" such a standard would produce. Indeed, utilities have long sought to exploit their "monopoly" power over poles by seeking to base pole attachment charges on the utilities' own higher, hypothetical pole replacement cost or on the hypothetical avoided cost to the attacher of stand-alone pole

attacher is paying the additional or marginal costs incurred by the utility in connection with the attachment through make ready charges), and it would be irrational for the owner to claim otherwise.

⁵ "EAI agrees that sharing poles is logical and reasonable and that each utility should not install its own pole where an existing pole is available to share." EAI at 23, footnote 18.

construction or underground installation.⁶ The FCC and the vast majority of certified state commissions have repeatedly rejected such approaches in favor of the embedded cost methodology embodied in Section 224 and the cable rate formula.⁷

26. The inherent shortcomings of applying a stand-alone cost standard to poles to share utility poles are many, including:

- Pole systems cannot practically be reproduced;
- There is no free-functioning competitive market for poles;
- Pricing at levels greater than marginal costs unjustifiably and inequitably shifts resources from the provisioning of service into monopoly profits for the pole owner;
- Absent a competitive market for poles, there is no process to drive down the costs of poles to levels approximating marginal costs;
- There is no need for economic cues to guide optimal pole investment;
- Individual poles have long-lives and are not subject to obsolescence;
- Make-ready charges cover the cost of replacement for an individual pole, so that building in a higher stand-alone cost in the rental formula duplicates cost recovery for the utility, and finally;
- Utilities receive full cost recovery for the relatively few poles that are replaced.

⁶ See *Alabama Cable Telecomm. Ass'n v. Alabama Power Co.*, 16 FCC Rcd. 12209 at ¶ 57 (2001); see also Gulf Power Company's Response to Complaint, File No. PA 00-004 (filed Aug. 9, 2000) at 9-13, 38-52.

⁷ See, e.g., *Amendment of Rules and Policies Governing Pole Attachments, Report and Order*, CS Docket No. 97-98, FCC 00-116 (rel. April 3, 2000), at ¶¶ 8-10, see also *ACTA*, 16 FCC Rcd. 12209 at ¶¶ 53, 64-70.

27. As acknowledged by Congress, the FCC, the courts, and other certified state commissions, from a practical perspective, pole systems cannot be reproduced due to zoning, environmental, financial, and other constraints, and cable operators and other third party attachers have little practical choice but to share existing utility outside plant networks (*see* Kravtin Report at 8-9). Accordingly, it makes little economic sense to use an attacher's hypothetical stand-alone network "cost" because such a network practically cannot get built.
28. Without practical and feasible alternatives to the use of the utility's network, there is no "free" or competitively-functioning market for poles. A competitive market is defined by the existence of numerous buyers and sellers, no one of which is large enough to influence the price by varying the quantity of output it sells.⁸ Under such conditions of effective competition, market forces can be relied on to bring rates down to levels approximating marginal costs. In the case of pole attachments, because there is no competitive market for poles, there is no market process in action to drive down the costs of pole construction or any potential alternatives such as going underground, in the vast majority of cases.
29. Even if it was possible for an attacher to install its own poles or conduit as an alternative to sharing the utility's network, that cost is typically much more expensive than the fully compensated cost of attaching to the utility's poles. Thus, in the absence of free market conditions, 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, would permit the utility to exploit its monopoly ownership of the poles and to extract additional rent from the attacher well in excess of the efficient or actual economic cost of the pole attachment. The shared use of poles is an economically efficient allocation of resources vis-à-vis the alternative of attachers building their own duplicative networks. As well established in the economic literature, economic efficiency is maximized when pricing more closely approximates marginal costs. Conversely, pricing at levels greater than avoidable or economic costs has the effect of shifting resources away from an economically efficient outcome. Resources that would otherwise be used toward the provisioning of service by those attaching to utility poles would

⁸ See F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Third Edition (Boston: 1990), at 16.

instead be diverted toward higher pole rentals and the concomitantly higher monopoly profits and non cost-based revenue (for coops) for the pole owner. This shift in resources reduces overall societal welfare by producing ultimately higher prices and the provision of less services for consumers from which they would derive benefit.

30. Related to the absence of a free-functioning competitive market for poles and the associated forces that produce an economically efficient allocation of resources, there is no purpose to be served by economic “cues” from reproduction or stand -alone cost-based prices to guide optimal pole investment. Poles are extremely long-lived assets with little ongoing 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 have been recovered through rates for the utility’s core regulated electric service for which the network was built and maintained. Utilities have not been deterred from investing in the appropriate amount of pole plant of the height, type and class they deem appropriate for their own operational needs, and cable operators and other third party attachers have not over-consumed pole space as they would be required to pay for any over-consumption of pole space in the form of additional make-ready costs.
31. Furthermore, the use of a hypothetical replacement or stand-alone cost methodology for pole rental rates does not make economic sense at the individual pole level either. For the majority of poles that are not being replaced in any given year and enjoy long economic lives, replacement or stand alone 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 in order to serve their core electric utility service, costs are appropriately recoverable through regulated rates for those customers. For the poles that would not be replaced but for a third-party attacher, the costs are recoverable through make-ready charges imposed on the attacher, set unilaterally by the utility. If the third party attacher does not agree to pay the make-ready as unilaterally determined by the utility, the pole is not replaced and the attachment is not made. In effect, make-ready charges are replacement costs or stand alone costs applied at the individual pole level. Thus, there is no efficiency gain in building in the higher replacement

or stand alone cost in the rental formula, as it would only result in double cost recovery and an extraction of monopoly rents.⁹

32. The utilities seem to want to have it both ways. They simultaneously claim the safe and reliable provision of electricity is paramount and is what drives construction, operation, and maintenance of poles (*see, e.g.*, EAI at 2, Electric Cooperatives at 37), yet reject the economic notion that third-party attachers such as cable and CLECs are truly incremental users facing little practical alternative to using the existing utility pole network, and as such, are properly charged a rate for their use based on a marginal cost versus a stand-alone cost pricing standard. Given that FCC cable rate formula produces rates that are much more than marginal costs, there is no valid economic basis for using a rate formula that is designed to produce even higher rates.

THE MAINE “FORMULA” ADVOCATED BY THE ELECTRIC COOPERATIVES RELIES ON STAND-ALONE OR AVOIDED COST RATIONALES AND IS HIGHLY FLAWED.

33. The electric cooperatives discuss a few alternative pricing approaches for pole attachment rates (*see* Electric Cooperatives at 11- 17). These alternative “formulas,” with their excessive allocations, rely directly (as in the case of Maine which pro-rates costs based on estimates of what each entity would pay if it had to install its own poles) or indirectly (as in the case of City of Seattle, or Delaware) on avoided cost or disguised “replacement cost” rationales that have been rejected by the FCC, the courts, and other certified state commissions. None of these alternative approaches, which, as discussed below are rarely (if ever) applied, make economic sense, or have practical application.

⁹ In addition to the flaws in economic reasoning that utilities have used to support higher pole rentals, the use of a hypothetical replacement or stand alone cost methodology is inconsistent with the principles underlying the Eleventh Circuit’s *Alabama Power Company (“APCo”)* decision. Under the terms of APCo, the only time when a utility may claim additional compensation in excess of marginal is where a utility can demonstrate the dual conditions of full capacity and actual lost opportunity to rent or use space on a given pole. For the reasons identified above, replacement or stand-alone costs have no relevant economic connection to the fundamental conditions of supply present on a given individual pole. This is a point with which the FCC’s Chief Administrative Law Judge has agreed. *FCTA* at 21, n.10 (“The evidence also fails to prove that Cable Formula rents are insufficient to put Gulf Power in as good a position as it was before any taking of its pole space The Commission has already concluded that Cable Formula rates plus payment of make-ready expenses, provides compensation that exceeds just compensation. . . . Also, the Commission has twice rejected replacement cost methodology Therefore, if it were necessary to assess damages, replacement cost methodology would not be used.”) (internal citations omitted).

34. For instance, it is my understanding that cable operators in Delaware rely on negotiated rates, rather than use the excessive Delaware formula, and the rates paid by cable operators in that state to utilities are very close to the FCC cable rate. The so-called “Seattle” formula (see Cooperatives at 11) adopted by one city and described in the unpublished *TCI Cablevision of Washington, Inc. v. City of Seattle* case is also completely inappropriate and inapplicable. In the cited case, the appeals court upheld the formula used by the City which is unregulated and afforded much “deference,” on dozens of factors. The court also held that if the City had decided to use the FCC “pro rata method of allocation,” that method “could also be reasonable.”¹⁰ Moreover, although municipalities are not regulated for pole attachments in Washington state, the Washington Utilities and Transportation Commission does in fact use the FCC cable formula to determine just and reasonable rates for third party attachments to IOU poles in Washington.¹¹ The “Seattle” formula is thus limited to one city, has only been justified under municipal deference, not economic theory, and has never been followed anywhere else even in its home state that uses the FCC formula instead for IOUs.

35. With respect to the “Indiana” formula (see Electric Cooperatives at 14, 17), Indiana has not certified to the FCC to regulate pole attachments, thus cable operators and CLECs are charged under the FCC formulas in that state.¹² The formula cited by the Electric Cooperatives is between two ILECs and a cooperative, not any cable attacher who otherwise would be entitled to the FCC formula. In that case, the Indiana Utility Regulation Commission did not pass on the adequacy of the FCC formula. Instead, the IURC allowed a higher rate because the FCC cable formula yielded rates that were lower than the parties (who are all pole owners) wanted.

36. It is also odd that the electric utilities would even mention, let alone rely on, a rejected provision in a House Bill preceding the 1996 Act in support of its contention that support

¹⁰ *TCI Cablevision of Washington, Inc. v. City of Seattle*, No. 97-2-02395-SSEA, Findings of Fact, Conclusions of Law and Judgment, III. Conclusions of Law, ¶ 30 (May 20, 1998, J. Learned, Washington Sup. Ct., King County).

¹¹ REV. CODE WASH § 80.54.040.

¹² See *In the Matter of the Complaint by United Telephone Company of Indiana dba Sprint v. Kankakee Valley Rural Electric Membership Corporation*, Cause No. 42755, approved March 22, 2006 at 15. The federal Pole Act protects cable operators and “telecommunications carriers.” However, telecommunications carrier is defined by Section 224(a)(5) to exclude “any incumbent local exchange carrier.” 47 U.S.C. § 224(a)(5).

space should be allocated by a higher percentage. Of course, the failure of the Congress to enact the provision (in favor of an alternative) demonstrates Congress' intent not to adopt such an approach. In sum, while the other approaches may technically be on the books, they are clear exceptions to the rule, and have had limited if any practical application in the post-broadband era precisely because they are such outliers relative to the well-established and widely applied FCC's pole attachment formulas.

37. The "Maine" formula advocated by the Electric Cooperatives (at 13) which is an avoided cost model, has never been applied to cable operators or CLECs because it is too complicated and results in excessively high rates. Instead, attachers and the IOU electric company use settlement rates.¹³ Indeed, because the data that would be required to actually establish (and verify) rates based on the "Maine" formula are "at a level of detail not utilized by [the electric utility] in FERC Form 1 reporting," litigation at the Maine Public Utilities Commission ensued the moment the electric utility attempted to impose it.¹⁴ Ultimately, the cable industry and the electric utility decided to settle the litigation because "the complete adjudication of the issues . . . would involve considerable resources and expenses of both parties, and for the Maine Public Utilities Commission and its Staff. . . ."¹⁵ Such a proceeding would be similar to a full-blown electric rate-making case in sharp contrast to the FCC cable formula, which is easily applied without Commission intervention.

"TWEAKS" PROPOSED BY THE UTILITIES TO STAFF'S FORMULA, WHICH ALREADY PRODUCES A RATE FAR IN EXCESS OF AN EFFICIENT RATE, ARE UNJUSTIFIED AND MOVE THE FORMULA IN THE OPPOSITE DIRECTION OF THAT NEEDED TO PRODUCE A JUST AND REASONABLE RATE UNDER ACT 740 AND TO PROMOTE BROADBAND DEPLOYMENT

38. Staff's formula tweaks the FCC telecom formula to the utility's benefit by increasing the percentage of space classified as unusable space (and subject to a per capita allocation) and by allowing the utilities to set their own number of attaching entities. In addition, Staff's

¹³ See, e.g., *In re Cable Television Cos.*, Docket No. 93-030, Pub. Util. Reports, 4th Series, slip op. (Mar. 25, 1994) (setting negotiated pole attachment rates between the cable industry and Central Maine Power Company for four years).

¹⁴ *Id.*

¹⁵ *Id.*

formula fails to adjust for recent trends including the use of taller poles and reductions in the cost of capital. The combined effect is a gross over-allocation of costs to third party attachers (20-30%) relative to a maximum efficient allocation (6-7%) (*see* Kravtin Report at 20-21). Further changes proposed by the utilities to Staff's formula, with limited exception, would have the effect of allocating an even greater percentage of pole costs to third party attachers. For the reasons discussed below, each of these proposed changes is totally unjustified and would move the rate in the opposite direction of that needed to promote broadband and just and reasonable rates.

39. The principal areas for modification to the Staff formula proposed by the utilities involve: (1) the removal of the two-third multiplier used to allocate unusable space (including the safety space which Staff improperly reclassifies as unusable) to attaching entities such that 100% of such space is divided equally among attachers; (2) the exclusion of the utility from the number of attaching entities such that third-party attachers bear 100% of the costs associated with unusable space; and (3) the treatment of Accumulated Deferred Income Taxes (ADIT), specifically proposing that ADIT not be netted out of pole costs used to calculate net bare pole costs and annual carrying charges.

Unusable Space/ Two-thirds multiplier

40. Utilities argue that the separations or safety space should be allocated as common (unusable) space as proposed by Staff, but go even further to argue the costs associated with this space should be not be subject to the telecom's formula two-thirds multiplier,¹⁶ but rather simply divided equally among attachers (*see* SWEPCO at 6, EAI at 24, Electric Cooperatives at Electric Cooperatives at 17-18). As found by the FCC, the safety space in question is used and usable by the utilities,¹⁷ and electric utilities commonly recover such expenses in make-ready and also derive income from this space from the attachment of streetlights (*see* Kravtin Report at 16). Accordingly, it is not of "equal" benefit to owners and attachers, and the costs associated with this space are properly treated as direct costs of the utility for purposes of

¹⁶ The FCC telecom formula (in simplified form) is as follows: Maximum Rate = ((Space Occupied by Attachment + (2/3 x Unusable Space ÷ No. attaching entities)) ÷ Pole Height) × Net Cost of Bare Pole × Carrying Charge Rate. 47 C.F.R. § 1.1417-18.

¹⁷ *See, e.g., Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Second Report and Order, 72 FCC 2d 59, 1979 FCC LEXIS 374, at *71 (1979).

cost attribution which are incurred regardless of the presence of third-party attachers. Indeed, if such safety space is too small for a safe attachment, associated costs are usually reimbursed through make-ready paid by the new or next attacher.

41. It is simply not true, from an economics standpoint that “the space itself would not be required but for the presence of the communications attachments” (*see* Electric Cooperatives at 8). Indeed, the utilities themselves acknowledge the use of this space to place streetlights and further that such placement is tied directly to granting of franchise to the utility.¹⁸ From an economics perspective, no allocation of this space to attachers is justified under cost causation principles as this space would exist even if there were no third-party attachments. There is no validity whatsoever to the utilities’ claim that this space exists at the insistence of cable operators (*see* SWEPCO at 6). In this context, the per-capita allocation of two-thirds the costs associated with this space, as embodied in the Staff formula, is excessive. The fact that utilities argue for 100% of this space be attributed to attachers, by eliminating the two-thirds factor which is applied under the telecom and Staff formulas to unusable costs before it is apportioned among attaching entities is totally nonsensical from economics perspective.
42. The utilities characterize the two-third multiplier embodied in the telecom formula (and upon which the Staff formula is based) as an unexplained “oddity” (*see* SWEPCO at 5, Electric Cooperatives at 10). However, it is not the least bit “odd” from an economics perspective that application of the FCC’s formulas would produce a result where electric utilities would bear up to 55% (or even more) of the costs of unusable space (*see* SWEPCO at 5). As noted earlier, economic cost causation principles would justify the utilities bearing an even higher percentage of costs, and third party attachers much lower (in the range of 6-7% versus 20-30% under Staff’s formula (*see* Kravtin Report at 20-21)). The application of the 2/3 multiplier does not produce a “discounted” rate, as incorrectly suggested by EAI (at 23). From an economic cost causation standpoint, attributing useable costs on a per-attacher basis (as opposed to on a relative-use basis) produces an over-allocation of costs, even with the application of the 2/3 factor.

¹⁸ “These attachments [streetlamps] are accommodations made to the municipalities which grant them franchises in the first place.” Electric Cooperatives at 8.

43. Moreover, the two-thirds factor is not the least bit “odd” or “mysterious” when viewed in the context of the telecom formula in its entirety and in light of Congressional expectations at the time of the 1996 Act. When Congress adopted the language prescribing the new telecom formula in the mid-1990s, the technology for facilities-based competition for telecom involved a new wire attached to the pole by a new CLEC entity. In the period immediately following implementation of the passage of the 1996 Act, and in light of the proactive measures that were being contemplated by this Commission and state regulatory agencies nationwide to open up the market for facilities-based local exchange services, there was a reasonable expectation to have assumed a greater number of attaching entities in any given service area than in fact materialized in the post-Act period.¹⁹ Had the widely-anticipated facilities-based entry occurred, the combination of a large number of attaching entities, combined with the application of the two-third factor, would have resulted in a much closer convergence between the cable and telecom rates. Indeed, it is to a large extent, based on the failure of facilities-based competition to have emerged at either the level and/or using the technology anticipated at the time of the Act, that has resulted in a telecom rate much higher relative to the benchmark cable rate than might otherwise have been expected, and that the utilities now take for granted (*see Electric Cooperatives at 8*).

Attaching entities.

44. The utilities also argue that the utility itself should not be counted as an attaching entity (*see SWEPCO at 5, Electric Cooperatives at 10*). The FCC’s logic in counting the utility itself as an attaching entity is sound and based on thoughtful analysis of the issue.²⁰

We do not believe that Congress intended for a single attacher, protected by the Pole Attachment Act, that uses one foot of space on a pole, to pay a higher (double) portion of the unusable space cost than the pole owner that controls, and uses a good portion of the rest of the usable space.²¹

¹⁹ See, e.g., *Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation's Proposed Tariff Filing to Revise the Annual Rental Charges for Cable Television Pole Attachments and to Establish a Pole Attachment Rental Rate for Competitive Local Exchange Companies*, Order Directing Utilities to Cancel Tariffs, Cases 01-E-0206, et al, at p. 3 (NYPSC, January 15, 2002) noting in particular the fact that “competition and the number of attachers has not developed as previously contemplated” as the basis for its decision not to increase pole attachment rates above the level of the existing cable rate.

²⁰ See *Consolidated Partial Order On Reconsideration*, 16 FCC Rcd 12103, ¶¶ 58-60 (2001).

²¹ *Id.* at ¶60.

45. Even before any modifications, under the FCC telecom formula, pole-owning utilities are attributed *less* than the proportion of common space commensurate with their own usage of the pole and stand to recover *more* than their pro-rata share of the pole cost given its own relative use of the pole and taking into account the totality of attachments by cable, CLEC, and ILEC attachers.²² This is even more likely the case under Staff's formula which assigns the safety space as unusable and lets the utility readily change the presumptive number of attaching entities, both of which serve to raise the percentage of costs allocated to third parties (*see* Kravtin Report at 20-21, tables showing comparison of telecom and staff formula cost allocations).
46. Given that a utility is not even required to pay for its own proportionate share of pole costs, there is no validity to any claim of over-allocation of costs to the utility associated with unusable space. The current *over-recovery* of pole costs by utilities relative to their own proportional use of the pole is another key reason why the Commission should continue to include the utility as an attaching entity.

Accumulated Deferred Income Taxes / Rate of Return

47. EAI (at 25-26) argues that accumulated deferred taxes should not be netted out of gross pole costs in the pole rate formula,²³ because the rate of return presumptively assumed in the Staff formula is already inclusive of ADIT. EAI does not make a convincing argument to alter the long-standing treatment of ADIT in pole rate formulas. First, EAI provides no evidence to support its claim that ADIT is actually being double counted. Second, independent of the actual treatment of ADIT, the 8% rate of return used in the Staff formula is very generous to the utilities based on current conditions in the capital markets. Pole rental rates provide an essentially guaranteed risk free stream of income for the utilities. If subject to a current review based on actual prevailing conditions, it is likely that the rate of return would be

²² As shown in Kravtin Report, Figure 1, the utility's own direct use is about 11 feet including the separations space which the Commission has described as "usable and used by the electric utilities" (CS-Docket No. 97-98, FCC 00-116 at ¶ 22)), as compared to cable's 1 foot. Applying the same FCC space factor used to allocate costs to cable, the utility should be allocating to itself at a minimum roughly 70% of the cost of a standard 40 foot joint-use pole [11feet/16 usable feet=68.75%].

²³ ADIT is netted out both in the calculation of net bare cost of a pole and in the calculation of the carrying charges.

lowered, as much as 50% or more to reflect current market conditions.²⁴ EAI's effort to focus on one element of the capital cost calculation (i.e., ADIT) in isolation without consideration of other changes that would dramatically reduce the capital costs should be rejected. There is nothing preventing the utilities to rebut the 8% return, if it can show it is or should be higher.

THE UTILITIES' PROPOSAL TO CHARGE THIRD-PARTY ATTACHERS FOR THE COSTS OF POLE MODIFICATIONS RELATING TO THE UTILITY'S OWN FUTURE USE DIRECTLY CONFLICTS WITH PRINCIPLES OF COST CAUSATION AND WOULD IMPOSE AN UNJUSTIFIED FINANCIAL PENALTY

48. As discussed in my initial report (at 42-43), one of the instances in the Proposed Rules where Staff appropriately adheres to the fundamental economic principle of cost-causation is in connection with the attribution of pole modification costs set forth in Section 4.03 of the Proposed Rules. In subsection (B)(1), Staff properly applies the cost causation principle to pole change-outs, in that any entity, "including the Public Utility pole owner," would be responsible for the costs of pole replacement when that entity was the one "causing the need for replacement."²⁵
49. It is perhaps not that surprising that some utilities take objection to this rule (*see* Electric Cooperatives at 34-35), given their rejection of cost causation principles generally as applied to pole attachment rates in favor of a monopoly rent approach. Third-party attachers through the process of make-ready are already charged the full costs of replacement for all poles that need to be changed out to accommodate their attachment. Moreover, notwithstanding the fact that they have paid in full for the replacement pole, any additional revenue streams, increased asset value, or reduced capital expenditures made possible by that replacement inure to the sole benefit of the pole-owning utility (*see* Kravtin Report at 12, 23). What the utilities appear to be arguing here is that, on top of that, they want to require third-party attachers to pay to change out poles to accommodate any presently unknown but potential

²⁴ By way of comparison, the current rate of return on ten-year government treasury bonds is in the 3-4% range.

²⁵ "When an Attaching Entity, including the Public Utility pole owner, requires additional space which is not available on that pole, and the pole must be replaced by a taller pole, the entity causing the need for replacement shall pay for the replacement cost of such pole, including the cost of removing the old pole, less any salvage value plus the costs of transferring the facilities of all other attachers." Section 4.03(B)(1).

future attachment of the utility as well as any of their own subsequent attachments. The utilities' proposal, if adopted, conflicts with the principle of cost causation, would result in excess cost recovery by the utility, and would impose a significant and unjustified financial penalty on third-party attachers. In effect, utilities are seeking the Commission to require third-party attachers pay as the currently do under the make-ready process to change out or rearrange that plant as required to accommodate the third-party's own attachment (at the utility's avoided cost), but in addition to that be required to pay to build out the utility's plant as required by the utility to provide core electric service (and at the utility's avoided cost) the costs of which they recover from electric ratepayers, then finally to pay annual rental charges for the right to occupy the poles the attacher has fully paid to replace not only to meet its own needs but the future needs of the utility. Clearly, such a proposal should be rejected as it goes against all established principles underlying pole rate regulation and any just and reasonable rate recovery (*see* Kravtin Report at 25-28, 43; 47 U.S.C. §§ 224(h) and (i)).

**THE UTILITIES' PROPOSAL TO ASSESS THIRD-PARTY ATTACHERS
ADDITIONAL CHARGES RELATING TO THE UTILITY'S OWN INSPECTION
EXPENSE CREATES AN UNECONOMIC COST BURDEN AND WOULD RESULT IN
DOUBLE RECOVERY OF SUCH EXPENSES**

50. The Staff correctly proposes in Rule 3.02.B. "to allocate costs of such inspections to attaching entities." The only "problem" according to the utilities with Rule 3.02B is that the rule, as presently drafted, allocates to each entity only those costs relating to the entity's "own expense." Nevertheless, all utilities propose cable and other third-parties should pay the utility's costs to perform joint inspections, even while they acknowledge that they recover costs of inspecting their own plant through FERC Maintenance Account 593 which is included in the carrying charges of the rental rate²⁶ (*see* Electric Cooperatives at 31; EAI at 18-20; and SWEPCo at 3). Allowing the utilities to impose separate, additional charges would permit double recovery of such costs. In addition, the utilities have the ability through make ready charges to recover non-recurring costs associated with third party attachments, making possible yet another opportunity for the double recovery of these types of costs. As noted in the earlier discussion of other allegedly "hidden" costs claimed to exist by utilities,

²⁶ "...the costs of EAI's periodic inspection of its own plant are recorded in FERC accounts included in EAI's pole attachment rate calculation." EAI at 19.

because make ready charges are set unilaterally by the utility and generally in the absence of regulatory scrutiny, there is no reason to believe that electric utilities would allow any material “hidden” costs incurred in specific connection with a third-party attachment, including those related to inspections, to go unreimbursed.

51. That the utilities perceive Staff’s proposed language to be problematic highlights the infirmities in the utilities’ philosophy regarding pole attachment rates. Using cost causation principles as the criteria for cost attribution is not a “problem.” It is the appropriate economic treatment that each party pays those expenses for which it is causally responsible. In rejecting Staff’s cost causation language, the utilities signal the true motivation underlying their position, and that is to increase the amount of money they receive from a third party entity above and beyond those costs relating to the entity’s “own expense” to “all” inspection-related expenses (see EAI at 20). Further, to suggest, as EAI does (at 20) that “the need for a public utility pole owner to carry out such a joint safety inspection would not arise but for the occurrence of safety and reliability problems attributable to non-utility communications plant attached to the public utility’s infrastructure” is simply not credible in light of (1) known utility safety and reliability problems (see Report of Michael T. Harrelson), and (2) the fact that third party attachers are subject to a detailed permitting process and pay through make ready and other reimbursements (e.g., pre-construction inspection costs) for all non-recurring costs relating to their attachment on the pole.

52. Through the regulated rate, attaching entities specifically share in the cost of inspection-related activity, and under the cable rate formula, in an appropriate cost causal proportion. Owners are reimbursed for any additional expenses they incur in connection with the presence of third-party entities, contrary to the suggestion of the utilities (see SWEPCo at 3). Furthermore, utilities are also fully reimbursed for this category of expense from their core electric ratepayers. No further reimbursement (in what would effectively be in the form of double or even triple recovery of such expenses) should be needed to “incent” pole owners to perform this task. Nor should the utilities be allowed to improperly shift responsibility for functions associated with the provision of their core electric services (for which they are fully reimbursed) onto third party attachers.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: June 2, 2008

A handwritten signature in cursive script, reading "Patricia D. Kravtin", is written over a horizontal line.

Patricia D. Kravtin

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

In the Matter of

Implementation of Section 224 of the Act;
Amendment of the Commission's Rules and
Policies Governing Pole Attachments

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WC Docket No. 07-245

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March 7, 2008

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SUMMARY

The *Notice*'s tentative proposal to raise pole attachment rents for cable operators who provide broadband Internet access would constitute a massive wealth transfer from consumers of broadband Internet and competitive facilities-based voice services to utility companies who have long abused their monopoly over poles. Imposing such a “pole tax” on cable-delivered broadband services conflicts with both the Commission’s broadband deployment policy and well-settled precedent for how utilities should be compensated for attachments to their monopoly poles.

Pole attachment regulation emerged after Congress, courts, the United States Justice Department and the Commission recognized that utility poles are essential facilities for the delivery of competitive communications services. The 1978 Pole Attachment Act and the Commission’s cable pole formula were implemented to address chronic efforts by incumbent telephone companies and electric utilities to use their monopoly control over poles to limit competition and extract excessive rents. Nothing has changed about this fundamental relationship between pole owners and attachers except that the economic incentives to abuse monopoly pole power have grown—as both ILECs and electric utilities increasingly compete with cable and other attachers in providing voice, data, and video services.

The Commission and the courts have on *every occasion* found the current cable pole rate to be more than fully compensatory to utility owners. Yet, the *Notice* fails to mention any of this well-settled precedent. The *Notice*'s new claim that the cable rate is a subsidy from utility ratepayers to cable and broadband companies is built upon a surprising misunderstanding of how the cable rate formula actually works. The *Notice* repeatedly claims that the cable formula does not compensate utilities for the cost of “unusable” space on poles—a claim that in the past the

Commission itself has called “a complete mischaracterization of the Pole Attachment Act and the Commission’s rules.”

In fact, the Commission’s cable pole rate rules substantially overcompensate utility pole owners. First, the cable attacher is required to pay *up front* “make-ready” for all costs necessary to rearrange lines or replace poles to attach cable to surplus pole space. In addition, cable must then pay an annual rent covering its share of the costs of the entire pole, *usable and unusable* space. Economists Harold Furchtgott-Roth and Patricia Kravtin agree that under well-settled principles of economics there is no subsidy arising from the cable pole rate.

State public service commissions with specific responsibility to protect against cross subsidies from electric consumers to pole attachers also have rejected such claims of subsidy. The vast majority of certified states have specifically rejected a penalty rate for advanced services—finding it would undermine broadband deployment and facilities-based voice competition.

The *Notice* also suggests that ILECs require parity with cable for pole rents paid to electric utilities. However, this proposal does not reflect an understanding of the substantial differences between the expansive joint pole ownership and use rights enjoyed by ILECs and the inferior and subordinate pole rights licensed to cable. For ease of reference, the following chart sets forth some of these substantial differences:

COMPARING ILEC AND CABLE RIGHTS ON ELECTRIC UTILITY POLES

ILEC RIGHTS

- **Guaranteed 2 to 3 feet of space**
- **Multiple attachments + FiOS lines**
- **Can displace cable**
- **Individual lines are heavier and multiple lines attached equates to more pole load**
- **Pays no make-ready for normal space**
- **Build plant at will -- no pre-clearance**
- **Receives billions of dollars of annual USF subsidies based in part on pole expenses**
- **Pays an “adjustment rate” based only on a small percentage of joint use poles that are out of balance with the utility**

CABLE RIGHTS

- **Requests 1 foot of space**
- **1 attachment**
- **Can be displaced by telco, power**
- **Lightest attachment**
- **Pays millions of dollars of make-ready annually, including purchasing new poles (on which cable subsequently pays rent)**
- **Seeks permission pole-by-pole, and waits for approval thereby slowing deployment**
- **Receives minimal USF subsidies**
- **Pays rent for all poles used**

To the extent that the Commission determines that it has the authority to set the pole rent for competitive local exchange carriers (“CLECs”) at the cable rate, it should do so. CLECs who attach to poles under the same obligations as cable operators should pay no more than cable. But *increasing* cable’s pole rent will not bring parity or enhance competition: it will inhibit voice

competition and raise unjustified barriers to broadband deployment, particularly to rural communities. The *Notice*'s proposed rate increase is a complete reversal of Congressional policy and of the Commission's prior decision not to penalize cable's deployment of broadband modem service. That Commission policy helped to ignite broadband deployment by cable and to make cable VoIP a successful facilities-based competitor to ILEC monopoly voice services. Cable's deployment of broadband and VoIP has greatly benefited consumers by saving billions of dollars annually in lower voice service charges and by providing improved service and features.

As to procedural issues, the Commission must continue to serve as an effective and available forum to remedy pole abuses. The Commission has recently explained, and the courts have agreed, that limiting challenges to pole agreements would only undermine effective pole attachment regulation and increase litigation.

Nor should the Commission be swayed by claims that cable threatens the safety of pole infrastructure—such claims have been found to be unsubstantiated when recently examined by the Commission. A detailed exhibit to these Comments demonstrates how all attachers have a responsibility for maintaining safe plant, which field personnel typically address in the ordinary course of business. The exhibit also identifies a number of construction practices by utilities that regularly place cable attachers out of compliance—although cable is still often required by utilities to pay to correct such violations.

The Commission's current cable rate more than fully compensates utility pole owners while promoting the important Commission goals of broadband deployment and facilities-based voice competition. For these reasons, the Commission should not adopt its proposed new pole tax and should apply the cable rate to all protected Section 224 attachers.

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

In the Matter of)	
)	
)	
Implementation of Section 224 of the Act;)	WC Docket No. 07-245
Amendment of the Commission's Rules and)	
Policies Governing Pole Attachments)	
)	

COMMENTS OF COMCAST CORPORATION

Comcast Corporation (“Comcast”) hereby responds to the above-captioned Notice of Proposed Rulemaking¹ (“*Notice*”) regarding the rates, terms and conditions for pole attachments under Section 224 of the Communications Act (“Act”). The *Notice* tentatively proposes to establish a uniform rate for all pole attachments used for broadband Internet access and further proposes that such uniform rate should be *higher* than the current cable rate that the Commission and the courts have on every occasion found to be more than fully compensatory to utility owners.

Utility poles are essential facilities over which utilities have long exercised monopoly power. Continued effective pole regulation is critical to control utility abuse of that power. The pole rate increase proposed in the *Notice* will constitute a massive wealth transfer from consumers of broadband Internet and competitive facilities-based voice services to utility pole owners. Imposing such a “pole tax” on cable-delivered broadband services conflicts with both

¹ *Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, Notice of Proposed Rulemaking, FCC 07-187, 22 FCC Rcd 20195 (2007) (hereinafter “*Notice*”).

the Commission’s broadband deployment policy and well-settled precedent for how utilities should be compensated for attachments to their monopoly poles. In 1998, the Commission rejected this very pole tax in order to promote such deployment and competition—and was upheld by the Supreme Court in 2002. States regulating pole rates agree that the cable rate is not a subsidized rate and that an increase in that rate will undermine broadband deployment and facilities-based competition.

These comments will demonstrate that the Commission’s tentative conclusion to raise broadband pole rents—thereby increasing the cost of deploying competitive broadband and voice over Internet protocol (“VoIP”) services—is based upon: (1) a fundamental misunderstanding of the rationale for the current cable rate; and (2) a complete failure to recognize the substantial differences between cable’s inferior pole license rights and the more expansive joint use rights enjoyed by ILECs.

Consistent with Congressional intent, court rulings, Commission decisions, economic theory and basic public policy principles, the Commission should lower pole rents for all regulated attachers, including CLECs, to the cable rate, not raise the cost of this monopoly component that is essential to the success of competitive networks.

I. INTRODUCTION

The 1978 Pole Attachment Act was passed by Congress in the face of substantial evidence of abuse by monopoly pole owners including the imposition of “exorbitant fees and other unfair terms . . .” on cable operators.² With passage of the Pole Attachment Act, Congress

² *Amendment of Commission’s Rules and Policies Governing Pole Attachments; Implementation of Section 703(e) of the Telecommunications Act of 1996*, Consolidated Partial Order On Reconsideration, FCC 01-170, 16 FCC Rcd

intended to stop utilities from engaging in “unfair pole attachment practices . . . and to minimize the effect of unjust or unreasonable pole attachment practices on the wider development of cable television service to the public.”³ The passage of the Pole Attachment Act, its extension to telecommunications carriers in 1996 and scores of decisions by courts and this Commission, all recognize that diligent pole regulation is essential to prevent pole owners from abusing their monopoly control of this scarce, bottleneck resource and is necessary to promote the deployment of competitive communications networks.⁴

Despite this long and continuing history of utility pole owners exercising monopoly power, the *Notice* essentially proposes to impose a new and unjustified tax on Internet and VoIP services by *raising* pole rents paid to monopoly pole owners.⁵

This proposal is premised on the fundamentally false claim that the cable rate is a subsidy.⁶ As a result, the *Notice* threatens to derail the Commission’s successful post-1996 Act

12103, 12116-17 ¶ 21 (2001) (hereinafter “2001 Reconsideration Order”) (citing S. Rep. No. 95-580 (1977), reprinted in 1978 U.S.C.C.A.N. 109) (hereinafter “1977 Senate Report”).

³ Pub. L. No. 95-234, 92 Stat. 35 (1978) (“1978 Pole Attachment Act”), codified at Communications Act of 1934, as amended (“Communications Act”), 47 U.S.C. § 224; 1977 Senate Report at 14, 1978 U.S.C.C.A.N. at 122. See also *FCC v. Florida Power Corp.*, 480 U.S. 245, 247 (1987) (recognizing that Congress enacted the 1978 Pole Attachment Act “as a solution to a perceived danger of anticompetitive practices by utilities in connection with cable television service.”).

⁴ *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, FCC 98-20, 13 FCC Rcd 6777, 6780 ¶ 2 (1998) (hereinafter “1998 Pole Order”) (FCC observes that the purpose of Section 224 is to “ensure that the deployment of communications networks and the development of competition are not impeded by private ownership and control of the scarce infrastructure and rights-of-way that many communications providers must use in order to reach customers.”), *aff’d*, *Southern Co. Servs., Inc. v. FCC*, 313 F.3d 574 (D.C. Cir. 2002) (court notes that utilities often exploit market position to charge excessively high attachment rates and that to restrain this practice Congress sought a mechanism whereby unfair pole practices may come under review and sanction); *Common Carrier Bureau Cautions Owners of Utility Poles*, 1995 FCC LEXIS 193, at *1 (1995) (“Utility poles, ducts and conduits are regarded as essential facilities, access to which is vital for promoting the deployment of cable television systems.”).

⁵ *Notice*, 22 FCC Rcd at 20196 ¶ 3 (“With regard to rates, we tentatively conclude that all attachments used for broadband Internet access service should be subject to a single rate, regardless of the platform over which those services are provided, and that that rate . . . should be greater than the current cable rate, yet no greater than the telecommunications rate.”).

policies that facilitated the cable industry's deployment of cable modem and VoIP services and to undermine the long anticipated introduction of facilities-based competition to break the ILEC voice monopoly. The Commission, the courts, and the states have all previously and uniformly rejected the utilities' contention that the regulated rates constitute a subsidy to cable.⁷

Repeatedly, the cable rate has been found to be *more than compensatory* because:

- Just compensation for pole attachment rent is the marginal cost of making an attachment.
- Through the make-ready process, the cable industry pays *all* such marginal cost's (totaling millions of dollars annually) required to rearrange existing poles or to build sufficiently tall new poles—and to correct preexisting utility safety violations—in order for cable to attach.
- New poles paid for by cable during cable make-ready become the utilities' property.
- After paying all make-ready, cable attachers *additionally* pay rent based upon cable's proportionate share of annual costs of the *entire* pole—*unusable* as well as the useable space.

⁶ The *Notice* seeks comment on “whether cable operators should continue to receive such subsidized pole attachment rate at the expense of electric consumers.” *Notice*, 22 FCC Rcd at 20203 ¶ 19. *See also* Statement of Chairman Martin: “I do not think electric consumers should be subsidizing any broadband companies.” *Id.* at 20230.

⁷ *See, e.g., 2001 Reconsideration Order*, 13 FCC Rcd at 6786-91 ¶¶ 15-25; *Florida Power*, 480 U.S. at 253-54 (finding that it could not “seriously be argued, that a rate providing for the recovery of fully allocated cost, including the cost of capital, is confiscatory.”); *Alabama Power Co. v. FCC*, 311 F.3d 1357 (11th Cir. 2002); *Detroit Edison Co. v. Michigan Public Serv. Comm’n*, 1998 Mich. App. LEXIS 832, *6-7 (Nov. 24, 1998) (hereinafter “*Detroit Edison Co.*”), *aff’g Consumers Power Co., Detroit Edison Co., Setting Just and Reasonable Rates for Attachments to Utility Poles, Ducts and Conduits, Case Nos. U-010741, U-010816, U-010831*, Opinion and Order, 1997 Mich. PSC LEXIS 26 (Feb. 11, 1997); *Trenton Cable TV, Inc. v. Missouri Public Serv. Co.*, PA-81-0037, at ¶ 4 (rel. Jan. 25, 1985) (“Since any rate within the range assures that the utility will receive at least the additional costs which would not be incurred but for the provision of cable attachments, that rate will not subsidize cable subscribers at the expense of the public.”). *See* Exhibit 1, Report of Patricia D. Kravtin ¶¶ 67-72 (hereinafter “*Kravtin Report*”); and Exhibit 2, Declaration of Harold W. Furchtgott-Roth at 9-17 (hereinafter “*Furchtgott-Roth Report*”).

Inexplicably, the numerous Commission and court rulings that contradict the “subsidy” premise for the rate increase proposal have been ignored in the *Notice*.⁸ Further, as recognized by economist Harold Furchtgott-Roth, “[t]he current cable rate is higher than the marginal cost of adding a cable attachment to a pole and thus is not a subsidy.”⁹

Similarly, the *Notice*’s concern that the continued payment of unregulated pole rents by ILECs “could impact the vitality of competition to deliver telecommunications, video services and broadband Internet access service”¹⁰ completely misses the fact that ILECs have pole attachment rights and benefits that are far superior to cable in their agreements with electric utilities. In adopting the 1978 Pole Attachment Act, Congress acknowledged the interrelationship between the amount paid for a pole attachment and the rights received in return.¹¹ Cable pays millions in make-ready charges to utilities covering all marginal costs needed to rearrange or build poles tall enough for cable. Cable then pays rent—based on *fully* allocated costs. In return, cable receives a limited and subordinate “license” to a foot of surplus pole space that displaces no one and precludes no competing service. In contrast, ILECs are typically guaranteed 2 to 3 feet of space for multiple attachments, can displace cable attachments, and install facilities that are heavier, more numerous and place more load on poles. In addition, ILECs typically pay no make-ready and are not required to apply in advance of

⁸ The Commission’s failure to acknowledge this precedent belies the Commission’s assertion that it will be guided by the “overarching concerns embodied in the statute and our precedent” *Notice*, 22 FCC Rcd at 20196 ¶ 2.

⁹ Furchtgott-Roth Report at 1 (Furchtgott-Roth goes on to explain: “In basic terms, marginal cost means the additional cost of supplying an additional unit of output (in the case of poles, the cost of attaching one more line to a utility pole that would not have been incurred but for the attachment).” *Id.* at 11-12.

¹⁰ *Notice*, 22 FCC Rcd at 20201-02 ¶ 15.

¹¹ *1977 Senate Report* at 19, 1978 U.S.C.C.A.N. at 127 (“The level of pole attachment fees is intimately connected with the terms and conditions of pole space leasing agreements.”).

attaching facilities to suit their business needs.¹² These critical differences are nowhere acknowledged in the *Notice*. For ease of reference, we provide the following chart showing these differences:

COMPARING ILEC AND CABLE RIGHTS ON ELECTRIC UTILITY POLES

ILEC RIGHTS	CABLE RIGHTS
<ul style="list-style-type: none"> ▪ Guaranteed 2 to 3 feet of space ▪ Multiple attachments + FiOS lines ▪ Can displace cable ▪ Individual lines are heavier and multiple lines attached equates to more pole load ▪ Pays no make-ready for normal space ▪ Build plant at will -- no pre-clearance ▪ Receives billions of dollars of annual USF subsidies based in part on pole expenses ▪ Pays an “adjustment rate” based only on a small percentage of joint use poles that are out of balance with the utility 	<ul style="list-style-type: none"> ▪ Requests 1 foot of space ▪ 1 attachment ▪ Can be displaced by telco, power ▪ Lightest attachment ▪ Pays millions of dollars of make-ready annually, including purchasing new poles (on which cable subsequently pays rent) ▪ Seeks permission pole-by-pole, and waits for approval thereby slowing deployment ▪ Receives minimal USF subsidies ▪ Pays rent for all poles used

Only Commission review of the joint use agreements between ILECs and electric utilities will allow for a true “apples to apples” comparison of pole rights and obligations, and such a review should be undertaken as part of this rulemaking.

Section 706 of the Telecommunications Act of 1996 (“1996 Act”) directs the Commission to encourage broadband deployment by removing barriers to infrastructure investment, and the Commission is authorized to fashion its pole attachment rules to accomplish

¹² See Kravtin Report ¶¶ 96-102.

this goal.¹³ As recently as 1998, the Commission refused to raise rents for broadband attachments by cable and defended that decision successfully to the Supreme Court in 2002.¹⁴ Yet, the *Notice* inexplicably now proposes to reverse both Congressional intent and recent FCC decisions on pole attachments that have helped to promote new broadband deployment and unprecedented local voice competition. The *Notice's* proposal also conflicts with decisions of state public service commissions that carefully have considered, and then rejected increasing cable pole rents based upon the transmission of Internet, VoIP and other advanced services. The states have found that such increased costs would be detrimental to broadband deployment, competition and consumer welfare.¹⁵

This sudden policy reversal stands in sharp contrast to the Commission's dedication to lowering cost barriers for ILEC entry into video. To protect these "fledgling new entrants," the FCC created an asymmetrical franchising regime that provides the ILECs streamlined franchising, unprecedented restrictions on build-out requirements, and public, educational and

¹³ *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984*, Report and Order and Further Notice of Proposed Rulemaking, FCC 06-180, 22 FCC Rcd 5101, 5103 ¶ 4, 5110 ¶ 18 (2007) (hereinafter "*First 621 Order*").

¹⁴ *1998 Pole Order*, 13 FCC Rcd at 6794 ¶¶ 31-32; *NCTA v. Gulf Power Co.*, 534 U.S. 327, 339 (2002) (noting Congress' general instruction to the FCC to "accelerate deployment of [broadband] capability by removing barriers to infrastructure investment.").

¹⁵ See, e.g., *Rulemaking to Amend and Adopt Rules in OAR 860, Divisions 024 and 028, regarding Pole Attachment Use and Safety (AR 506) and Rulemaking to Amend Rules in OAR 860, Division 028 Relating to Sanctions for Attachments to Utility Poles and Facilities (AR 510)*, Order No. 07-137, 2007 Ore. PUC LEXIS 115, at *22-24 (Apr. 10, 2007) (hereinafter "*Oregon Pole Attachment Rulemakings*"); *Order Instituting Rulemaking on the Commission's Own Motion Into Competition for Local Exchange Service*, R.95-04-043, I.95-04-044, Decision 98-10-058, 1998 Cal. PUC LEXIS 879 (Oct. 22, 1998) (hereinafter "*California Competition Decision*"); *Consideration of Rules Governing Joint Use of Utility Facilities and Amending Joint-Use Regulations Adopted Under 3 AAC 52.900 – 3 AAC 52.940*, Order Adopting Regulations, 2002 Alas. PUC LEXIS 489 (Oct. 2, 2002) (hereinafter "*Alaska Joint Use Order*"); *Petition of the United Illuminating Company For A Declaratory Ruling Regarding Availability Of Cable Tariff Rate For Pole Attachments By Cable Systems Providing Telecommunications Services and Internet Access*, Docket No. 05-06-01, Decision, 2005 Conn. PUC LEXIS 295, at *11-12 (Dec. 14, 2005) (hereinafter "*Connecticut Rate Order*"). See discussion at 21-23, *infra*.

governmental (“PEG”) fees that are capped proportional to market share in each franchise area.¹⁶

The proposal to increase cable’s pole costs goes in exactly the opposite direction—imposing new and unwarranted costs on cable’s efforts to bring true facilities-based voice competition to more Americans. The *Notice*’s rate increase proposal decreases the incentive to deploy broadband in rural areas, and will neutralize price competition that VoIP has introduced into the market. The American consumer will be the loser.

II. POLE OWNERS HAVE ABUSED THEIR MONOPOLY CONTROL OVER POLES

It is undisputed that utility poles and conduit space are essential facilities over which utilities have monopoly control.¹⁷ Local franchises, environmental restrictions, and economic barriers preclude cable operators and others from placing additional poles in areas where there are existing poles.¹⁸ “Utility company poles provide, under such circumstances, virtually the only practical physical medium for the installation of television cables.”¹⁹ The U.S. Congress,²⁰ federal

¹⁶ See *Implementation of Section 621(a)(1) of the Cable Communications Policy Act of 1984*, Second Report and Order, FCC 07-190, 22 FCC Rcd 19633, 19636 ¶ 8, 19639-40 ¶ 14 (hereinafter “*Second 621 Order*”); *First 621 Order*, 22 FCC Rcd at 5114 ¶ 26.

¹⁷ *Alabama Power*, 311 F.3d at 1361-62; Furchtgott-Roth Report at 6-8; Kravtin Report ¶¶ 7-8.

¹⁸ See, e.g., 123 Cong. Rec. 35006 (1977) (statement of Rep. Wirth, sponsor of 1978 Pole Attachment Act) (“The cable television industry has traditionally relied on telephone and power companies to provide space on poles for the attachment of CATV cables. Primarily because of environmental concerns, local governments have prohibited cable operators from constructing their own poles. Accordingly, cable operators are virtually dependent on the telephone and power companies. . . .”); 123 Cong. Rec. 16697 (1977) (statement of Rep. Wirth) (“Cable television operators are generally prohibited by local governments from constructing their own poles to bring cable service to consumers. This means they must rely on the excess space on poles owned by the power and telephone utilities.”); *1977 Senate Report* at 13, 1978 U.S.C.C.A.N. at 121 (“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.”); H.R. Rep. No. 95-721, at 2 (1977) (“Use is made of existing poles rather than newly placed poles due to the reluctance of most communities, based on environmental considerations, to allow an additional, duplicate set of poles to be placed.”).

¹⁹ *Florida Power*, 480 U.S. at 247.

²⁰ *1977 Senate Report*, 1978 U.S.C.C.A.N. 109.

district and circuit courts and the Supreme Court,²¹ the Commission,²² and the Department of Justice²³ have documented the monopoly abuse of these essential facilities even when pole owners were merely in an “unholy alliance between the electric utility companies and the telephone companies” intent on limiting competition from cable.²⁴ As incumbent telephone companies began to regard the “broadband” cable television market as a threat to and natural extension of their core communications business, they moved to suppress cable expansion. Cable operators seeking to attach their facilities to the poles faced delays in installation, overcharges, restrictive tariffs forbidding competitive telecommunications, and efforts to force them into “lease-back” arrangements in which the pole owner would have sole control over the installation, maintenance, and operation of the cable attachments.²⁵

²¹ See, e.g., *Gulf Power*, 534 U.S. at 330 (finding 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.”); *Southern Co. Servs., Inc. v. FCC*, 313 F.3d 574 (D.C. Cir. 2002) (court notes that utilities often exploit market position to charge excessively high attachment rates and that to restrain this practice Congress sought a mechanism whereby unfair pole practices may come under review and sanction); *United States v. Western Elec. Co.*, 673 F. Supp. 525, 564 (D.D.C. 1987) (cable TV companies “do depend on permission from the Regional Companies for attachment of their cables to the telephone companies’ poles and the sharing of their conduit space. . . . In short, there does not exist any meaningful, large-scale alternative to the facilities of the local exchange networks. . . .”), *aff’d in relevant part*, 900 F.2d 283 (D.C. Cir. 1990); *General Tel. Co. of Southwest v. United States*, 449 F.2d 846, 851 (5th Cir. 1971) (construction of systems outside of utility poles and ducts is “generally unfeasible”).

²² See, e.g., *Twixtel Technologies, Inc.*, DA 90-929, 5 F.C.C.R. 4547, 4548 (Com. Car. Bur. 1990), Letter from FCC Common Carrier Bureau (July 9, 1990) (basis of telco-cable cross-ownership rule is “the Commission’s traditional concerns with carrier denial of access to essential poles and conduit”); as the FCC stated, “we know from experience that, as a practical matter, a CATV operator desiring to construct his own system must have access to those poles.” *Better TV, Inc.*, 31 F.C.C.2d 939, 956 (1971), *recon. denied*, 34 F.C.C.2d 142 (1972).

²³ See *United States v. AT&T*, No. 74-1698, Plaintiffs’ First Statement of Contentions and Proof (D.D.C., filed Nov. 1, 1978) (Justice Department’s cataloging of BOC dominance of pole and conduit facilities. “The cost of building a separate pole system was prohibitive, and many municipalities simply forbade this alternative”).

²⁴ *Cable Television Regulation Oversight: Hearings Before the Subcomm. on Communications of the House Comm. on Interstate and Foreign Commerce, Parts 1 & 2*, 94th Cong. (1976) at 822 (Rep. Van Deerlin) (“1976 Oversight Hearings”).

²⁵ “Lease-back” arrangements provided for telephone company ownership and control of all aerial plant with the cable operator paying for “channel service” for delivering cable television programming to its subscribers over that plant as opposed to owning and deploying the coaxial cable plant itself. See, e.g., *Communications Act Amendments of 1977: Hearings on S. 1547 Before the Subcomm. on Communications of the Senate Comm. on Commerce, Science, & Transportation*, 95th Cong. (1977) (“S. 1547 Hearings”); *1976 Oversight Hearings* at 795-97; *1977 Senate Report* at 13, 1978 U.S.C.C.A.N. at 121; *Better TV, Inc.*, 31 F.C.C.2d at 967 (independent operators “quickly took the hint about the lack of manpower to perform make-ready work and accepted channel service rather than run

When negotiations failed and most state PSCs failed to intervene,²⁶ Congress passed the 1978 Pole Attachment Act²⁷ and gave the FCC an explicit mandate to regulate the rates, terms and conditions of pole attachments²⁸ and to provide a readily available forum for the resolution of pole complaints.²⁹ Pursuant to this authority, the FCC promulgated regulations to bring pole rental rates in line with costs and to address unreasonable pole practices.³⁰

The 1996 Act opened the way for the electric utility industry to enter other communications businesses and intensified the anticompetitive behavior of these utilities against attachers nationwide.³¹ As explained by the Eleventh Circuit in 2002:

By 1996, the economic landscape surrounding pole attachments had undergone a fundamental change. Electric utilities saw the telecommunications arena as a logical and potentially lucrative choice for the diversification of their businesses.

the risk of having the competing channel service customer get such a head start as to make a grant of its request for a pole attachment agreement an empty and worthless gesture.”); *Applications of Telephone Companies for Section 214 Certificates*, 21 F.C.C.2d 307, 323-29 (1970) (cable systems “have to rely on the telephone companies for either construction and lease of channel facilities or for the use of poles for the construction of their own facilities.”); *General Tel. Co. of California*, 13 F.C.C.2d 448, 463 (1968) (by control over poles, telco is in a position to preclude an unaffiliated CATV system from commencing service).

²⁶ Protracted and expensive antitrust litigation was also recognized as an insufficient remedy to utility pole abuse. See *TV Signal Co. of Aberdeen v. American Tel. & Tel. Co.*, 462 F.2d 1256 (9th Cir. 1972); *TV Signal Co. of Aberdeen v. American Tel. & Tel. Co.*, 617 F.2d 1302 (8th Cir. 1980); *TV Signal Co. of Aberdeen v. American Tel. & Tel. Co.*, Memorandum Opinion and Interlocutory Order, 49 R.R.2d 328, 1981-1 Trade Reg. Rep. (CCH) 63,944 (D.S.D. 1981) (cable operator eventually prevailed in antitrust litigation, but by that time, 12 years later, it was bankrupt).

²⁷ Pub. L. No. 95-234, 92 Stat. 35 (1978), codified at 47 U.S.C. § 224.

²⁸ 47 U.S.C. § 224(b)(1).

²⁹ *1977 Senate Report* at 22, 1978 U.S.C.C.A.N. at 129-30.

³⁰ *Adoption of Rules for the Regulation of Cable Television Pole Attachments*, First Report and Order, 68 F.C.C.2d 1585 (1978); *Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Second Report and Order, 72 F.C.C.2d 59 (1979); *Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Third Report and Order, 77 F.C.C.2d 187 (1980); *Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, Report and Order, 2 FCC Rcd 4387 (1987), *aff’d*, *Monongahela Power Co. v. FCC*, 655 F.2d 1254 (D.C. Cir. 1985) (per curiam); *Amendment of Rules and Policies Governing Attachment of Cable Television Hardware to Utility Poles*, Memorandum Opinion and Order on Reconsideration, 4 FCC Rcd 468 (1989). FCC regulations do not apply to railroads, electric or telephone co-ops or government-owned utilities. Some individual states (like Washington and Louisiana) may regulate co-op poles.

³¹ See *Implementation of Section 34(a)(1) of the Public Utility Holding Company Act of 1935, as added by Section 103 of the Telecommunications Act of 1996*, Report and Order, FCC 96-376, 11 FCC Rcd 11377, 11378 ¶ 1 (1996) (allowing electric utilities to enter the telecommunications industry).

Cable companies were fearful that the [electric] utilities' prospective entry into the telecommunications market would endanger their pole attachments, as utilities would be unwilling to rent space on poles to competing entities. Congress elected to address both these matters in the 1996 Telecommunications Act.³²

Despite the Pole Attachment Act and Commission oversight, utility pole owners continue to resist attempts to curb their unreasonable pole-related conduct. Utilities have been found to engage persistently in various tactics setting rates at unlawful levels,³³ requiring unreasonable pole attachment agreement terms and conditions,³⁴ denying and delaying pole access³⁵ and imposing illegal non-rate costs.³⁶

The business incentives for electric and telephone utilities to harm cable operators through abusive pole rates and practices have never been greater. Electric utilities are offering BPL and fiber technologies to compete with cable and competitive telecommunications services,³⁷ while the voice/data/video competition between cable and ILECS continues to

³² *Southern Co.*, 293 F.3d at 1341-42.

³³ See, e.g., *RCN Telecom Serv. of Philadelphia, Inc. v. PECO Energy Co.*, 17 FCC Rcd 25238 (2002) (rejecting PECO's attempt to charge a "market rate" of \$47.25 per pole); see also *Alabama Power Co.*, 311 F.3d 1357 (11th Cir. 2002) (affirming the FCC's decision to "reject the [\$38.81 per pole] price demanded by" Alabama Power); *Gulf Power*, 534 U.S. 327 (Supreme Court rejects electric utility efforts to charge unregulated monopoly rates for cable attachments carrying cable modem traffic); *Connecticut Rate Order*, 2005 Conn. PUC LEXIS 295, at *11-12 (PSC rejects electric utility effort to charge unregulated monopoly rates for cable attachments carrying cable modem traffic).

³⁴ See *Cable Television Ass'n of Georgia v. Georgia Power Co.*, DA 03-3411, 18 FCC Rcd 22287 (2003) (finding pole agreement that was unilaterally imposed by electric utility contained numerous unreasonable terms and conditions contrary to federal law).

³⁵ See *Cavalier Tel. LLC v. Virginia Elec. & Power Co.*, DA 00-1250, 15 FCC Rcd 9563 (2000) (mandating that the electric utility facilitate CLEC's access to poles), *vacated by settlement*, DA 02-3319, 17 FCC Rcd 24414 (2002) (hereinafter "*Cavalier Settlement Order*"). The vacatur notwithstanding, the FCC affirmed that its decision to vacate did "not reflect any disagreement with or reconsideration of any of the findings or conclusions contained" in the original order issued in 2000. See *Cavalier Settlement Order*, 17 FCC Rcd at 24420-21 ¶ 19.

³⁶ See *Knology, Inc. v. Georgia Power Co.*, FCC 03-292, 18 FCC Rcd 24615 (2003) (finding that electric utility improperly required cable attacher to pay to correct safety violations of other attachers and the utility); *Texas Cable & Telecomm. Ass'n v. Entergy Servs., Inc.*, DA 09-1118, 14 FCC Rcd 9138, 9144 ¶ 17 (1999) (finding that attaching parties "are required to pay only the direct costs for necessary surveys actually performed.").

³⁷ The list of utilities that have tested, deployed, or invested in BPL grows every year. See, e.g., Press Release, Ameren Subsidiary, River City Internet Group and Telkonet, Inc. Partner to Deliver In-Building Broadband Over Power Line Services (BPL) to Multi Dwelling Market (Sept. 26, 2006), available online at http://stlpressreleases.com/show_release.php?company_id=15&pr_id=151 (visited Feb. 17, 2008); Greg Lovett, *Broadband over Power Lines: "BPL" – The Ameren Experience*, Aug. 3, 2005, available online at

intensify.³⁸ Meanwhile, the Commission, Congress, and the courts have all found that monopoly bargaining power still lies in the hands of the pole owners.³⁹

III. THE CABLE POLE RATE OVERCOMPENSATES UTILITIES

a. The Cable Formula Allocates Cost of the Entire Pole, Including Unusable Space.

The *Notice* proceeds under a fundamental misconception in asserting that the cable rate is a subsidy.⁴⁰ Congress, the courts, the Commission and state public service commissions have found this utility claim false time and time again over the past 30 years.⁴¹ Given the central role

www.icc.illinois.gov/downloads/public/en/050805ecBPLPresAmeren.doc (visited Feb. 17, 2008); *Telkonet and Amperion Announce Strategic Partnership; Offer Customers Greater BPL Deployment Flexibility*, Business Wire, Nov. 16, 2004 (identifying AEP as the primary Amperion investor), available at http://findarticles.com/p/articles/mi_m0EIN/is_2004_Nov_16/ai_n6361094 (visited Feb. 17, 2008); *Is broadband set to make powerlines sing?*, CNET News, Feb. 24, 2004, available online at http://www.news.com/Is-broadband-set-to-make-power-lines-sing/2100-1034_3-5163739.html (visited Feb. 19, 2008); *DirectTV Announces Plan to Provide Service via BPL*, Aug. 16, 2007, <http://www.arrl.org/news/stories/2007/08/16/102/?nc=1> (visited Feb. 18, 2008). The United Power Line Council (UPLC) actively maintains a web registry which shows there are now approximately 200 separate BPL deployments nationwide. See <http://www.bpldatabase.org/listing/> (visited Feb. 17, 2008). The UPLC maintains this registry as required by 47 C.F.R. § 15.615. See also <http://www.bpldatabase.org/> (visited Feb. 17, 2008). The United States Department of Commerce's National Telecommunications & Information Administration's recent broadband report cites an estimated 400,000 BPL subscribers in the country today, a figure projected to climb to 2.5 million by the year 2011. *Networked Nation: Broadband In America 2007*, National Telecommunications & Information Administration (Jan. 2008), at 26, available at <http://www.ntia.doc.gov/reports/2008/NetworkedNationBroadbandinAmerica2007.pdf> (visited Feb. 18, 2008).

³⁸ Kravtin Report ¶¶ 33-35, 111.

³⁹ Furchtgott-Roth Report at 3-8; Kravtin Report ¶¶ 111-113.

⁴⁰ *Notice*, 22 FCC Rcd at 20203 ¶ 19.

⁴¹ See, e.g., Congress has confirmed that the FCC formula is "just and reasonable" in 1982, 1984, 1992, and 1996. See Communications Amendments Act of 1982, Pub. L. No. 97-259, 96 Stat. 1087 (1982); Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (1984); Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992); and Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996); *2001 Reconsideration Order*, 16 FCC Rcd at 12113-19 ¶¶ 15-25; *Alabama Cable Telecomms. Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209, 12236 ¶ 60 (2001) ("respondent's repeated claims that cable attachers do not pay for any costs of unusable space is a complete mischaracterization of the Pole Attachment Act and the Commission's rules.") (hereinafter *ACTA v. APCO*); *Florida Power*, 480 U.S. at 253-54 (finding that it could not "seriously be argued, that a rate providing for the recovery of fully allocated cost, including the cost of capital, is confiscatory."); *Alabama Power*, 311 F.3d 1357; *Detroit Edison Co.*, 1998 Mich. App. LEXIS 832, at *6-7 ("Edison . . . asserts, in a conclusory fashion, that the rate adopted by the PSC is unjust and unreasonable because it would require Edison's customers to subsidize the activities of the attaching parties. However, instead of explaining why the PSC's embedded costs method fails to provide adequate compensation, Edison merely states, as if it were a matter of fact . . . that the embedded costs method results in an unfair subsidy. . . . In any event, our review of the record reveals that there was competent,

the alleged “subsidy” plays in the *Notice*’s proposed pole rate increase, it is astonishing that the *Notice* contains no mention of extensive and well-settled precedent finding there is no subsidy.

As explained in the Kravtin Report:

While economists may disagree on many things, there is perhaps one central tenet upon which there is solid agreement, and that is the notion that rates that recover the marginal costs of production are economically efficient and subsidy-free. For a subsidy to occur, the utility must have unrecovered costs that *but for* the attachment would otherwise not exist.⁴²

Because the cable pole rate more than compensates utilities for their marginal costs resulting from adding cable attachments, there is no subsidy.

One key source of the Commission’s subsidy misconception arises from its incorrect premise that the “cable rate does not include an allocation of the cost of unusable space.”⁴³ In 2001—and in direct contrast to its statement in the *Notice*—the Commission observed that “under the *Cable Formula*, the costs of unusable space are allocated based on the portion of usable space an attachment occupies, the space factor.”⁴⁴ The current *Notice* fundamentally misstates the Commission’s own pole rate formula—and the Commission itself has found prior

material, and substantial evidence to support the PSC’s conclusion that a rate based on the embedded costs method would enable utilities to recover their historical investment”); *Trenton Cable TV, Inc. v. Missouri Public Serv. Co.*, PA-81-0037, at ¶ 4 (rel. Jan. 25, 1985) (“Since any rate within the range assures that the utility will receive at least the additional costs which would not be incurred but for the provision of cable attachments, that rate will not subsidize cable subscribers at the expense of the public.”)

⁴² Kravtin Report ¶ 67. *See also* Furchtgott-Roth Report at 9 (“Although pole rental rates have been regulated under Section 224, the cable rate is not a ‘subsidized rate ... at the expense of electric consumers’ as suggested in the NPRM.”) A key factor in determining that the cable rate is fully compensatory is that cable’s use of pole space is in almost all cases “nonrivalrous” and therefore no opportunity is lost by utilities in making attachment space available for such attachments. In a rivalrous situation, marginal cost would not be the proper measure of just compensation, rather the value of the lost opportunity would be the appropriate measure. *See* Kravtin Report ¶¶ 83-93.

⁴³ *Notice*, 22 FCC Rcd at 20204 ¶ 22. Other references in the *Notice* recognize the fact that the cable rate does recover for unusable space cost. *Id.* at 20207 ¶ 29 (the cable and telecommunications formulas “differ only in the manner in which the costs associated with the unusable portion of the pole are allocated.”).

⁴⁴ *2001 Reconsideration Order*, 16 FCC Rcd at 12131 ¶ 53.

such misstatements by others to be “*a complete mischaracterization of the Pole Attachment Act and the Commission’s rules.*”⁴⁵

Contrary to the *Notice’s* assumption, the cable rate pays proportionately for the costs of the *entire* pole—*unusable* as well as the usable space. As the legislative history of the 1978 Pole Act explained, this cost allocation approach is analogous to other well accepted, familiar contexts such as an apartment house:

The renter of one of the ten units pays the cost of that unit plus one-tenth of the cost of all common areas. He does not pay one-half the cost of the common areas just because only one other person occupies the other nine units, but rather he pays his one-tenth share of all the costs attributable to the building.⁴⁶

Consistent with this common and equitable cost allocation approach, Congress specifically designed the cable formula to allocate an appropriate share of the cost of the entire pole to cable attachers:

Cable would pay its share of not just the costs of...usable space but of the total costs of the entire pole, *including the unusable portion* (below grade level and between grade and minimum clearance levels.) This allocation formula reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs of furnishing the service which has the greater amount of use.⁴⁷

This is the same method that other FCC common carrier costing rules require. As explained in the Kravtin Report:

Part 64 of the Commission’s rules establishes methodology dealing with the allocation of costs between regulated and non-regulated activities specifically designed to prevent the

⁴⁵ *ACTA v. APCO*, 16 FCC Rcd at 12236 ¶ 60 (emphasis added).

⁴⁶ 123 Cong. Rec. 5080 (1977) (statement of Rep. Wirth); Kravtin Report ¶¶ 56-66.

⁴⁷ *1977 Senate Report* at 20, 1978 U.S.C.C.A.N. at 128 (emphasis added).

cross-subsidization of the latter. Under Part 64, carriers are instructed to allocate indirect costs (such as common costs defined as costs that cannot be directly assigned to either regulated or non-regulated activities) “based upon an indirect, cost-causative linkage to another cost category...for which a direct assignment or allocation is available.”⁴⁸

In the pole attachment context:

the costs of the *entire* pole, i.e., “the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole”⁴⁹— including direct (usable) and common (unusable) space alike—are allocated to an attachers based on a “cost-causative linkage...for which a *direct* assignment or allocation is available” — namely, an attachers’ occupancy of usable space on the pole.⁵⁰

As a result of the clear direction from Congress, the Commission’s implementing rules⁵¹ have, for more than 30 years, required cable operators to pay an allocated portion of the entire pole cost—usable and unusable space.⁵² There should have been no confusion about this critical fact in the *Notice*.

b. The Cable Rate Overcompensates Utilities.

The Commission’s cable pole rate overcompensates utilities for all of their costs incurred in connection with cable attachments on utility poles. The *Notice* is wrong in suggesting that the cable rate subsidizes cable attachers. On four separate occasions—in 1982,⁵³ 1984,⁵⁴ 1992,⁵⁵ and

⁴⁸ Kravtin Report ¶ 57.

⁴⁹ 47 C.F.R. § 224(d).

⁵⁰ Kravtin Report ¶ 57 (emphasis added).

⁵¹ 47 C.F.R. §§ 1.1401 *et seq.*

⁵² Indeed, the vast majority of certified states use the cable rate. *See, e.g., California Competition Decision*, 1998 Cal. PUC LEXIS 879, at *88 (“Since the 7.4% allocation applies to the cost of the *entire* pole, it results in a fair cost apportionment in deriving attachment rates, either for cable or telecommunications services.”) (emphasis added). *Alaska Joint Use Order*, 2002 Alas. PUC LEXIS 489, at *6-7 (“We believe it is fair to assign the unusable portion of the pole based on how the usable portion of the pole is assigned. We are not convinced from the record that alternative formulas before us are any more accurate and reasonable than the existing CATV formula.”)

⁵³ Communications Amendment Act of 1982, Pub. L. No. 97-259, 96 Stat. 1087 (1982).

⁵⁴ Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (1984).

⁵⁵ Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992).

1996⁵⁶—Congress has recognized that the cable rate is “just and reasonable.” Moreover, the cable rate has been found repeatedly by the federal courts,⁵⁷ this Commission,⁵⁸ state courts (reviewing state public service commission decisions)⁵⁹ and state public service commissions⁶⁰ to be *more than compensatory* and not a subsidy.

As a constitutional “just compensation” matter, utilities are only entitled to the incremental costs associated with third-party pole attachments, which are minimal in most

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

⁵⁷ *Florida Power*, 480 U.S. at 253-54 (finding that it could not “seriously be argued, that a rate providing for the recovery of fully allocated cost, including the cost of capital, is confiscatory.”).

⁵⁸ See *2001 Reconsideration Order*, 16 FCC Rcd 12113-19 at ¶¶ 15-25; *Trenton Cable TV, Inc. v. Missouri Public Serv. Co.*, PA-81-0037, at ¶ 4 (rel. Jan. 25, 1985) (“Since any rate within the range assures that the utility will receive at least the additional costs which would not be incurred but for the provision of cable attachments, that rate will not subsidize cable subscribers at the expense of the public.”).

⁵⁹ In affirming the Michigan PSC’s adoption of the FCC formula in Michigan, the Court of Appeals of the State of Michigan rejected identical arguments made by Detroit Edison:

Edison . . . asserts, in a conclusory fashion, that the rate adopted by the PSC is unjust and unreasonable because it would require Edison’s customers to subsidize the activities of the attaching parties. However, instead of explaining why the PSC’s embedded costs method fails to provide adequate compensation, Edison merely states, as if it were a matter of fact . . . that the embedded costs method results in an unfair subsidy. . . . In any event, our review of the record reveals that there was competent, material, and substantial evidence to support the PSC’s conclusion that a rate based on the embedded costs method would enable utilities to recover their historical investment.

Detroit Edison Co., 1998 Mich. App. LEXIS 832, at *6-7.

⁶⁰According to the Oregon Public Utility Commission in adopting the cable formula just last year:

[Utilities] argue that the telecommunications rate formula better considers the impact of several occupants on a pole. However, the cable formula has been found to fairly compensate pole owners for use of space on the pole. In addition, use of the cable rate will allow parties to rely on the case law interpreting that rate, providing guidance in forming their contracts. Based on the legislative history, as well as consideration of the many arguments made by the participants, we conclude that we will follow the cable rate formula and the subsequent FCC and court decisions interpreting it.

Oregon Pole Attachment Rulemakings, 2007 Ore. PUC LEXIS 115, at *24 (internal citations omitted).

Likewise, the California PUC, which applies the FCC cable formula in California, at Cal. Pub. Util. Code § 767.5 ruled:

[T]he formula does not result in a subsidy since the formula is based upon the costs of the utility. A subsidy would require that the rate be set below cost. The fact that the rate is below the maximum amount that the utility could extract for its pole attachment through market power absent Commission intervention does not constitute a subsidy. The embedded cost formula prescribed in § 767.5 applies to capital costs, net of accumulated depreciation, and also allows for recovery of the annual operating expenses of the utility’s poles and support structures. This formula will therefore reasonably compensate incumbent Utilities for their ongoing operating expenses related to providing access to their support structures.

California Competition Decision, 1998 Cal. PUC LEXIS 879, at *88-89.

cases.⁶¹ The FCC’s cable formula is already far more generous than the just compensation standard—providing monopoly pole owners a rent representing a proportional share of all costs of the pole (*both usable and unusable space*).⁶²

Additionally, cable operators and other attachers are required by utilities to pay all “make-ready costs” associated with installing or rearranging attachments in the field, including: the cost of engineering “ride outs” or field visits to examine the poles to confirm that space exists and to specify the point of attachment; “line shifting” or rearrangement costs, in the event utility or third-party wires need to be relocated to accommodate the cable facilities; and all of the “change out” costs of removing the old pole and installing a new, taller pole (which the utilities retain title to) if there is insufficient space on an existing pole. *Therefore, the marginal costs of attachments are already collected by utilities through make-ready charges.*⁶³ The annual pole

⁶¹ *Alabama Power*, 311 F.3d at 1370-71 (“any implementation of the [FCC cable pole attachment rate] (which provides for much more than marginal cost) necessarily provides just compensation”). See Furchtgott-Roth Report ¶¶ 1, 10-11; Kravtin Report ¶¶ 38-40, 67-72.

⁶² See pp. 12-15, *supra*. The Commission allocates annual pole costs to cable operators through a set of presumptions and references to existing utility financial reports filed with the Federal Energy Regulatory Commission (“FERC”). The Commission’s formula for cable attachments begins with the annual carrying costs for the *entire* pole—maintenance, depreciation, administrative overhead, taxes, and return on investment at the rate authorized by the applicable state PSC. Each cost input is taken directly from each utility’s specific, publicly-reported cost information (FERC Form 1). Although the Commission publishes a schedule of the FERC accounts that are presumptively included in the cost calculation, the FCC actually tailors the cost calculation to individual showings by utilities. *Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, Report and Order, 2 FCC Rcd 4387, 4404 (1987) (hereinafter “*1987 Pole Order*”). These costs for the whole pole are then allocated by the amount of space used by cable operators. The formula uses presumptions, for a population of 35- and 40-foot poles, that 13.5 feet of space above minimum grade clearance is “usable” and that cable attachments “use” one foot of space. 47 C.F.R § 1.1418. Thus, a cable attachment is assigned 1/13.5 of the annual carrying costs of the entire pole. This presumption is explicitly rebuttable. 47 C.F.R § 1.1404(g). Utilities can and do submit their actual plant records so that a utility with shorter poles (and therefore less usable space) can assign proportionately more cost to each foot of usable space. To the benefit of the pole owner, a cable or telecommunications attachment is presumed to occupy one foot of pole space for formula purposes although the attachment is actually much smaller and may only occupy one inch in diameter. Second Report and Order, 72 FCC Rcd at 69-70 (regarding cable attachments); *1998 Pole Order*, *supra* note 4 at ¶ 91 (regarding telecommunications attachments); *Amendment of Rules and Policies Governing Pole Attachments*, Report and Order, FCC 00-116, 15 FCC Rcd 6453 ¶ 22 (2000) (hereinafter “*2000 Pole Order*”).

⁶³ Kravtin Report at ¶¶ 67-72; Furchtgott-Roth Report at 10-11. Georgia Power representatives reported at a January 2008 meeting of the Utilities Telecom Counsel that it received \$2.25 million for make-ready in 2007 alone. See

rent charged is on top of the make-ready charges. Consequently, the annual pole rental fees paid by attachers represent “found money” to the utilities and help them to fund fixed pole operating expenses that exist whether or not there are any attachers.⁶⁴

In its *Alabama Power* decision, the Eleventh Circuit confirmed that the cable pole rate overcompensates utilities because it provides substantially more than the marginal cost of attachments:

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. See In the Matter of Ala. Cable Telecomm. Ass'n et al. v. Ala. Power Co., 16 FCC Rcd 12,209, ¶ 69 n.154 (2001). Indeed, such costs were paid in the present case.⁶⁵

The court went on to specifically find that the cable rate “*provides for much more than marginal cost.*”⁶⁶

note 86; Kravtin Report ¶ 98 n.65. In addition to these substantial make-ready costs, cable attachers are typically subject to other significant expenses imposed by utilities for attachment audits and safety on post-construction inspections that ILECs escape. Exhibit 3, Attachment 3 (Declaration of John Eichhorn).

⁶⁴ As explained in the Kravtin Report, the provision of space on poles is not a “zero sum” game where the attacher gains at the expense of the utility or its rate payers. To the contrary, the utility and its rate payers would simply bear the same costs as without the attacher but without any contribution towards those costs. Kravtin Report ¶¶ 12-14, 69-74, 82, 94. This fact was recognized by Congress when it enacted the 1978 Pole Attachment Act. See *1977 Senate Report* at 16, 1978 U.S.C.C.A.N. at 124 (“CATV offers an income-producing use of an otherwise unproductive and often surplus portion of the plant”). Nevertheless, pole rents continue to increase annually in any event despite regulation. For example, in 2001, the average electric utility pole rent for an attachment was \$5.62. By 2005, the average rent had increased to \$7.53.

⁶⁵ *Alabama Power*, 311 F.2d at 1368-69. The Commission’s decision, which *Alabama Power* upheld, further explained that, 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. *ACTA v. APCO*, 16 FCC Rcd at 12235 ¶ 58.

⁶⁶ *Alabama Power*, 311 F.2d at 1369 (emphasis added); Kravtin Report ¶¶ 67-72.

As explained in the Furchtgott-Roth Report, “rather than find fault with the cable rate, the Commission and the court specifically concluded that the proper regulatory rate for pole attachments was marginal cost, *lower* than the Section 224 cable rate. . . .”⁶⁷ Kravtin agrees:

In addition to the cable formula rate, the utility is also allowed to charge cable operators make-ready charges to recover any one-time additional costs incurred in the provision of pole attachments. Because of this additional compensation over and above the cable formula rate (which can be quite substantial), plus the fact that any upgrades to the pole made (and paid for) through the make-ready process become property of the utility, the pole owner is likely made *even better off* after the accommodation of an additional cable attachment. This can occur in any of the following ways:

- The utility receives in excess of the marginal costs it incurs through the combination of make-ready plus the cable rental rate;
- The utility ends up with greater available pole capacity as compared with pre-attachment, because cable attachments place minimal space demands on the pole and poles come in standard heights;
- More space is available on the pole to accommodate additional uses and/or users for which the utility can realize additional sources of revenue; and
- The utility has the benefit of a newer, stronger pole for its own operations at the cable company’s expense, and can realize savings (or deferred capital expenditures) to its own build-out program, as recognized by the Commission.⁶⁸

In light of the above, there is no basis in law, economics or policy to increase the pole attachment rates paid by cable companies that carry broadband, VoIP and other advanced services.

c. The Telecommunications Rate Is Inappropriate for New Services.

Because the cable formula more than fully compensates utilities for attachment space, there is no legal or policy rationale to use the telecommunications rate as a guide post for a broadband service pole rate increase. While Congress created the telecommunications rate as

⁶⁷ Furchtgott-Roth Report at 10.

⁶⁸ Kravtin Report ¶ 69.

part of a political compromise in extending pole access rights to CLECs in 1996, it also created a 10-year phase-in period over which the CLEC industry was anticipated to grow and attach more lines to poles, which would have made the surcharge considerably cheaper when fully implemented. However, the CLEC industry never developed in that fashion. The New York PSC acknowledged this problem:

To allow increased pole attachment rates at this time, when competition and the number of attachers has not developed as previously contemplated, is contrary to the public interest under PSL §119-a, in that it would undermine efforts to encourage facilities-based competition and to attract business to New York.⁶⁹

Technology then evolved to allow voice and data to be delivered over cable facilities without the need for additional attachments. As a result, the number of additional attachers anticipated to be phased in over 10 years (which would have reduced the telecommunications rate down to, and even below, the cable rate) never materialized. As observed in the Kravtin Report:

In this context, and for the reasons delineated and discussed further below, the Commission's tentative conclusion to close the disparity between the two rates by increasing the cable rate up to a level closer to the telecom rate further compounds these past failures and moves precisely in the opposite direction from policies that would promote competition and the deployment of broadband services.⁷⁰

Any increase in the cable pole rate for attachments used for broadband, VoIP and other advanced services will undermine the key broadband deployment and facilities-based

⁶⁹ *Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation's Proposed Tariff Filing to Revise the Annual Rental Charges for Cable Television Pole Attachments and to Establish a Pole Attachment Rental Rate for Competitive Local Exchange Companies*, Order Directing Utilities to Cancel Tariffs, Case 01-E-0026, 2002 N.Y. PUC LEXIS 14, at *4 (Jan. 15, 2002) (hereinafter "NY Pole Attachment Order"). See also Kravtin Report ¶¶ 50-55.

⁷⁰ Kravtin Report ¶ 55.

competition goals of the Communications Act—as both the Commission and the states have recognized on many occasions.⁷¹

IV. STATES HAVE REJECTED INCREASED POLE RATES FOR NEW SERVICES

Several states that have certified their pole jurisdiction to the Commission have also considered whether to adopt a separate rate for attachments transmitting broadband and advanced services. States have rejected setting a separate and higher rate, recognizing that increasing rates above the cable rate is unnecessary and *overcompensatory* and would undermine competition and broadband deployment. For example:

- Last year the **Oregon** PUC rejected a separate, higher pole rate than the FCC cable rate. “[Utilities] argue that the telecommunications rate formula better considers the impact of several occupants on a pole. However, the cable formula has been found to fairly compensate pole owners for use of space on the pole... we will follow the cable rate formula and the subsequent FCC and court decisions interpreting it.”⁷²
- In 2005, the **Connecticut** DPUC upheld the State’s cable-based formula rate of \$5.83 for all attachments of the electric utility United Illuminating (“UI”) and declined to impose an “unusable space” surcharge, noting “the Department is not persuaded that there are any incremental real costs to UI from a pure cable company wire that provides only cable services and a cable company wire that also provides internet and telecommunication services. Therefore, there do not appear to be any real cost impacts to UI as a result of this ruling.”⁷³ In this proceeding the utility’s expert witness admitted under oath that cable lines pose no additional burden when they carry data or voice.⁷⁴
- The **California** PUC has ruled “There is generally no difference in the physical connection to the poles or conduits attributable to the particular service involved. In many cases, a cable operator may not be able to delineate exactly what particular services are being provided to a customer at a given time because the customer can use the connection for various services, depending on the equipment attached to the connection at the customer’s premises. . . . Moreover, such an approach promotes the

⁷¹ See discussion at pp. 21-23 and 30-35, *infra*.

⁷² See note 60 *supra*, *Oregon Pole Attachment Rulemakings*, 2007 Ore. PUC LEXIS 115, at *24.

⁷³ See *Connecticut Rate Order*, 2005 Conn. PUC LEXIS 295, at *11-12.

⁷⁴ *Id.* at *11 n.4. [Cite to Kowalski quote]. Mr. Kowalski, while serving as an expert in this case, is an attorney who usually represents utilities in pole attachment matters. [*Id.* Tr. 9-12-05, pp. 116-117.]

incentive for facilities-based local exchange competition through the expansion of existing cable services. . . . We conclude that the adoption of attachment rates based on the [cable rate] formula provides reasonable compensation to the utility owner, and there is no basis to find that the utility would be lawfully deprived of any property rights.⁷⁵

- The **Alaska** PUC explained in 2002: “The CATV formula is reasonable and should be the default formula for calculating pole attachment rates if the pole owner and the attachers cannot negotiate their own agreement. We find that the formula provides the right balance given the significant power and control of the pole owner over its facilities.”⁷⁶
- The **New York** PSC expressed the same concerns: “To allow increased pole attachment rates at this time, when competition and the number of attachers has not developed as previously contemplated, is contrary to the public interest under PSL §119-a, in that it would undermine efforts to encourage facilities-based competition and to attract business in New York.”⁷⁷

The determinations by state commissions regarding the sufficiency of the cable rate to compensate utility pole owners for the provision of new services are compelling precedent for the Commission. In each certified state, Section 224 requires that in regulating pole attachment rates, terms and conditions the state consider “the interests of the subscribers of the services offered via such attachments, as well as the interests of the consumers of the utility services.”⁷⁸ Thus, the organic law of each certified state requires a consideration of both utility and cable consumer interests. Given this mandate, the states have found no subsidies result from the cable formula and that the lower pole rate will encourage broadband and VoIP deployment and competition.⁷⁹

⁷⁵ *California Competition Decision*, 1998 Cal. PUC LEXIS 879 (internal citations omitted).

⁷⁶ *Alaska Joint Use Order*, 2002 Alas. PUC LEXIS 489, at *6.

⁷⁷ *NY Pole Attachment Order*, 2002 N.Y. PUC LEXIS 14, at *4.

⁷⁸ See 47 U.S.C. § 224(c)(2)(B); 47 C.F.R. § 1.1412(a)(2).

⁷⁹ Furchtgott-Roth Report at 12-15. See also Vermont Policy Paper and Comment Summary on PSB Rule 3.700, at 6, available at <http://www.state.vt.us/psb/rules/proposed/3700/PolicyComments3700.pdf> (The Vermont Public Service Board believed that the reduction in pole attachment costs to cable companies, resulting from application of the formula, would “lead to cable services becoming available in some additional low-density rural areas. . . . [Thus

Moreover, state commissions have found that increased pole rents will not result in any consumer benefit through reductions in utility charges. When adopting the cable rate for all pole attachments (regardless of the services offered over the attachment) state PSCs with responsibility to prevent cross subsidies from electric customers to attachers have found that no such subsidy exists. On the contrary, higher pole rents will only harm consumers through unwarranted rate increases at the expense of broadband and VoIP competition. There is no evidence that increased pole revenue will result in any meaningful reduction of residential electric utility rates, while it is *crystal clear* that an increase in cable broadband and VoIP pole rents will materially impact residential competition for voice and other advanced services.

As pointed out in the Furchtgott-Roth Report, utilities do not consider the level of pole rents received from attachers as a material issue that impacts their investment, deployment or infrastructure. In utility filings with the Securities and Exchange Commission, pole attachment revenues are not even mentioned as either a source of revenue or as a cause of any subsidization.⁸⁰

creating] even more value for Vermonters as cable TV companies are increasingly offering high-speed Internet service to new customers.”); Vt. Pub. Ser. Bd. R. § 3.706(D)(2)(c). The *Notice* inquires whether the Maine pole rate formula should be considered in establishing ILEC (and possibly other attachers’) pole rents. *Notice*, 22 FCC Rcd at 20227-28 ¶ 32. As explained in the Kravtin Report, “[b]ecause the Maine approach fundamentally is based on the concept of stand-alone costs, it suffers from the same flaws in economic reasoning as the hypothetical replacement or avoided cost approaches proposed by utilities over the years.” Kravtin Report ¶ 22-23. Although utilities have been staunch advocates of the Maine approach for many years in pole rate proceedings in certified states, in every case the defects in the approach have been recognized by the PSCs and the proposals rejected (typically in favor of the FCC cable rate).

⁸⁰ Furchtgott-Roth Report at 16-17.

V. BECAUSE ILECs OBTAIN GREATER POLE ATTACHMENT BENEFITS FROM UTILITIES, “PARITY” WITH CABLE POLE RATES IS NOT JUSTIFIED

The legislative history of the 1978 Pole Attachment Act recognized the complex nature of pole attachment rights and that different attachers and/or joint users could have vastly superior or inferior rights on a given pole justifying different pole rent levels.

The level of pole attachment fees is intimately connected with the terms and conditions of pole space leasing agreements. The reasonableness of a utility’s pole attachment practices must be judged with reference to the compensation that it receives from cable companies for the service provided. For example, a pole attachment fee designed to recover all of the utility’s fully allocated costs might justify giving cable operators all of the rights with respect to poles as other utility users, subject only to higher priority that exists for the maintenance of telephone and electric service. Alternatively, a fee designed to recover only the utility’s avoidable costs, which could be expected to be minimal since most of those costs are the outlays that should be fully recovered in the make-ready charges, would justify treating cable as a clearly secondary use subordinate in every respect to the provision of electric and telephone service...[T]he fairness of any term or condition of a CATV pole-leasing agreement will have to be judged in relation to other contract provisions, prevailing practices in the industries involved, and the particular pole rate charges, matters which cannot be precisely translated into statutory language.⁸¹

Despite this specific Congressional guidance, the current *Notice* proposes that ILECs should pay electric utilities the same pole rent as cable notwithstanding any disparity in rights. The argument for “parity” is based upon the fundamentally false assumption that the only difference between cable and ILEC relations with electric utilities is the pole rent. It is apparent that the Commission has not yet reviewed the joint use agreements between ILEC and electric utilities so that a true “apples to apples” comparison of rights and obligations can be made.

ILECs have far greater rights and place far greater burdens on the pole. Cable operators have been treated strictly as licensees—despite paying the fully allocated costs of the pole. By

⁸¹ 1977 Senate Report at 19, 21, 1978 U.S.C.C.A.N. at 127, 129.

contrast, ILECs have been treated as joint owners of a shared network of electric utility and telephone company poles and party to joint use agreements. As observed by Kravtin: “[a]s joint owners, ILECs are afforded an entirely different and more favorable set of rights, terms, and conditions for pole attachment, including more planning oversight and control, albeit with certain responsibilities that go hand-in-hand with those privileges.”⁸²

The following are some of the fundamental differences in the electric utility attachment relationship enjoyed by ILECs as compared to cable:

- ILECs have the right to require the utility build a “standard” or “normal” pole *with enough telephone space for twice the attachments that cable makes.*⁸³
- Cable can access a utility pole *only* if there is “left over” space or if cable is willing to prepay make-ready to build poles tall enough for cable lines. After buying a replacement pole (for \$6,000 to \$12,000 per pole), cable then deeds ownership of the pole to the utility and receives no compensation (indeed cable then starts paying rent to the utility on the new pole as if the utility had purchased and installed that facility itself—effectively double paying for the attachment).⁸⁴
- Cable is often called upon to pay to fix and/or replace poles that were in violation of safety requirements even if the violation occurred before cable attaches or if the violation is caused by the utility or the ILEC.⁸⁵ Cable pays to cure these safety violations by pole owners.⁸⁶

⁸² Kravtin Report ¶ 97.

⁸³ *Id.* ¶ 99.

⁸⁴ *Id.* ¶ 100; Exhibit 3, Attachment 3 (Declaration of John Eichhorn); Kravtin Report ¶¶ 96-102.

⁸⁵ See *Knology, Inc. v. Georgia Power Co.*, FCC 03-292, 18 FCC Rcd 24615, 24629 ¶ 37 (2003); see *Kansas City Cable Partners v. Kansas City Power & Light Co.*, Consolidated Order, 14 FCC Rcd 11599, 11606-07 ¶ 19 (Cable Serv. Bur. 1999) (“Correction of the pre-existing code violation is reasonably the responsibility of KCPL and only additional expenses incurred to accommodate Time Warner’s attachment to keep the pole within NESC standards should be borne by Time Warner.”). See also Exhibit 3, Attachment 3 (Declaration of John Eichhorn).

⁸⁶ Attached as Exhibit 3 is an explanation, along with supporting representative photographs addressing pole safety and construction issues (the “Safety Exhibit”). The *Notice* appears to accept as true that attachers are responsible for all safety violations on poles. *Notice*, 22 FCC Rcd at 20211 ¶ 38. As explained in the Safety Exhibit, however, in the real world, utilities and attachers alike are interested in maintaining safe plant. Outside pole plant is subject to constant environmental and other impacts that cause utilities and attachers to undertake regular efforts to maintain plant and correct any deficiencies that are identified. While pole owners continually point the finger at cable and other attachers as the chief cause of safety violations on poles, when these accusations are exposed to cross-examination under oath, the charges are discovered to be unsupported efforts to impose unreasonable costs and

- Cable deployment of competitive services is slowed because cable operators must submit applications for new or modified attachments and wait to have them approved before making attachments. ILECs have superior rights of pole ownership and access. ILECs can deploy their distribution plant when and where they wish without enduring the delays or attempts at leverage sought by utilities through the permitting process. For example, Verizon deploys FiOS quickly by building without submitting any applications, awaiting approval, performing make-ready or paying for post-construction inspections. By contrast, cable does not have similar rights to expand its plant in response to competitive or operational needs, pays for make-ready and post-construction inspections, is a mere licensee and is subordinate to and preemptible by ILECs (*i.e.*, ILECs can and often do force existing cable facilities into non-compliance or into a make-ready scenario).⁸⁷
- Cable pole agreements are contracts of adhesion—with utilities often insisting on numerous self help remedies, burdensome audit and inspection requirements, termination rights and security requirements. ILECs are not generally subject to such onerous provisions.⁸⁸
- Telephone companies place more physical stress on poles, by use of banjo tight fiber, heavier copper and more lines—which increases the amount of stress on and costs of the pole.⁸⁹ Utility attorneys have recently acknowledged the greater stress and demands that ILEC plant places on poles compared to cable.⁹⁰

burdens on third party attachers. *See Florida Cable Telecomms. Ass'n v. Gulf Power Co.*, Initial Decision, FCC 07D-01, 22 FCC Rcd 1997, 2002 ¶ 17 (2007) (hereinafter “*FCTA Initial Decision*”). *See also FCTA Initial Decision*, Bowen Cross, Apr. 25, 2006, Tr., at 1066-76 (Gulf Power witness admits under cross-examination that NESC violations alleged to have been caused by communications attachers may have been caused by Gulf Power). *See Exhibit 3, Attachment 2* (Gulf Power Transcript). *See also Cable Television Ass'n of Georgia v. Georgia Power Co.*, DA 03-2613, 18 FCC Rcd 16333, ¶ 12 (2003) (“Georgia Power contends that the terms and conditions of the New Contract are warranted in light of the numerous violations of safety and prudent engineering procedures that the Cable Operators have committed. . . . While we emphatically share Georgia Power’s concerns about safety, the record does not support its assertions that the host of new contract provisions are necessary to ensure safe operations. . . . Indeed, Georgia Power cannot point definitively to a single incident of property damage or personal injury caused by one of the Cable Operators.”). As demonstrated in the Safety Exhibit, electric and telephone utilities routinely place cable and third party attachers out of compliance with safety codes by installing additional facilities on poles *after* the third party has paid to make it compliant (fixing the utilities’ pre-existing violations in the process). The vast majority of outside plant issues have been handled cooperatively between utilities and attachers in the ordinary course of business. There is no compelling reason for the Commission to intervene in this area which works in most cases and where individual solutions turn on countless unique facts in the field.

⁸⁷ Exhibit 3, Attachment 3 (Declaration of John Eichhorn); Kravtin Report ¶¶ 97-100.

⁸⁸ Exhibit 3, Attachment 3 (Declaration of John Eichhorn).

⁸⁹ *See Exhibit 3, Attachment 1* (Illustrative photographs of Verizon FiOS attachments in Maryland. These Verizon FiOS attachments were strung “banjo tight,” which causes their wires to illegally touch Comcast’s wires (which were properly sagged to relieve pole tension in accordance with the NESC) at mid-span, and create excessive pole loading due to both tension and the weight of multiple thick attachments).

⁹⁰ Remarks of Thomas St. Pierre, Senior Counsel, American Electric Power, at Utilities Telecom Council 2008 Pole Attachment Meeting (Washington, DC Jan. 14-15, 2008) (observing that ILECs use more space, have more and heavier attachments and should pay more for attachments). *See Exhibit 3, Attachment 1* (photographs 23 and 24

- ILECs are paid numerous subsidies for costs (including pole expenses) that most cable operators are not eligible to receive.⁹¹ In 2007 alone, telephone companies received federal subsidies of nearly \$4.5 billion in high-cost support from the Universal Service Fund (USF).⁹² Telephone companies also receive annual subsidies in excess of \$1.3 billion more from twenty-six state universal service programs.⁹³ Pole expenses are included in carriers' accounting reports used to qualify them for federal universal service subsidies, and the ongoing subsidies are therefore used in part to pay their rents for pole attachments.⁹⁴

As these factors demonstrate, the ILECs *should* be paying a far higher pole rate than cable. Cable's inferior pole rights do not include the greater pole space occupied by the ILECs, the value implicit in the ILECs' ability to access poles without make-ready expenses, the more advantageous manner in which pole change-outs are treated compared to cable, or the larger space occupied and the other superior rights that ILECs joint owners enjoy.⁹⁵ Increasing the rate cable pays for broadband and VoIP attachments on the premise that it would create "parity" with

illustrating multiple, heavy telephone attachments). On the other hand, in the United Illuminating case in Connecticut, the utilities attorney admitted under oath that cable lines impose no additional burden when they carry data or voice. ("Notwithstanding the testimony of witness Reed and UI's many references to its need to alleviate the cost burden on its ratepayers as cited in the footnote above, UI's expert witness Kowalski testified that there is no additional cost burden.") *Connecticut Rate Order*, 2005 Conn. PUC LEXIS 295, at *11. See note 73, *supra*. See also Kravtin Report ¶ 41 n.33-34, ¶ 99 n.67.

⁹¹ The Commission has acknowledged the barriers facing new facilities-based competitors to ILECs arising from the advantages ILECs have from constructing networks over many years under rate of return regulation and from the support of an elaborate system of explicit and implicit subsidies. See *Promotion of Competitive Networks in the Local Telecommunications Markets*, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, FCC 99-141, 14 FCC Rcd 12673, 12684-85 ¶ 19 (1999).

⁹² *High-Cost Universal Service Support*, WC Docket No. 05-337; *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Recommended Decision, FCC 07 J-4, n.27 (Federal-State Joint Board on Universal Service rel. Nov. 20, 2007). In 2006, high-cost support payments totaled nearly \$4.1 billion. See Universal Service Administrative Company 2006 Annual Report at 40 (2006), available at <http://www.usac.org/res/documents/about/pdf/usac-annual-report-2006.pdf>.

⁹³ See Testimony of the Honorable Philip Jones, Commissioner, Washington Utilities and Transportation Commission, before the Committee on Commerce, Science and Transportation of the United States Senate on behalf of National Association of Regulatory Utility Commissioners (NARUC) (June 13, 2006), available at <http://www.naruc.org/Testimony/Jones061306.pdf>.

⁹⁴ See 47 C.F.R. §§ 32.6410, 32.6411, 36.341. In 2007 alone, Verizon received almost \$270 million in such subsidies. This amount does not include additional subsidies received by Verizon Wireless. CenturyTel received over \$257 million in USF subsidies. In addition, the ILEC wireless subsidiaries are highly subsidized. AT&T (and its wireless affiliates), for example, received approximately \$53 million in the last quarter of 2007 in support of its wireless services. See Universal Service Administrative Company Quarterly Administrative filings for 2007, available at <http://www.usac.org/about/governance/fcc-filings/2007>.

⁹⁵ Kravtin Report ¶¶ 96-109; Furchtgott-Roth Report at 19; Exhibit 3, Attachment 3 (Declaration of John Eichhorn).

ILEC pole rates would, instead, place cable at a distinct cost disadvantage given cable's far inferior pole rights. The rate proposal will simply impose additional barriers to entry on cable's efforts to deploy broadband and to expand voice competition.

In addition, policy changes of the magnitude proposed in the *Notice* cannot be considered without a full and fair review of the agreements among electric utilities and ILECs. These agreements will show that cable and other third-party attachers are the ones disadvantaged by the current pole relationships.⁹⁶ The *Notice* does not evidence any review of these agreements by the Commission to date.

Moreover, the Commission often applies different regulated rates to similar and even identical services in recognition of the complex underlying interrelationships of the systems. As explained in the Furchtgott-Roth Report:

In regulated industries, the Commission often prescribes non-uniform rates for the same service with the same physical cost structure. For example, business users usually pay higher rates than residential customers for similar if not identical telecommunications services. Termination rates paid by carriers for international calls are higher than those for interstate calls which in turn are higher than those for local calls. Special access rates for a carrier within a metropolitan area can vary widely. Some carriers charge access rates and special access rates based on rate-of-return regulation; others are under price caps; and many carriers charge different rates in different jurisdictions with no clear differences in cost structures. Yet for these services and others, physical costs may be similar if not the same both across carriers and customer classes. In all of these contexts, the Commission has been sensitive to the enormous complexity of rates in complex systems. It has not simply unwound intercarrier compensation by fiat, much less has it replaced it with a "uniform" rate formula.⁹⁷

⁹⁶ Kravtin Report ¶¶ 96-109, Figure 4; Kravtin Report, Attachment 3.

⁹⁷ Furchtgott-Roth Report at 18.

Yet, in this proceeding, the *Notice* proposes a parity of pole rates without ever exploring the significant differences between ILEC and cable pole attachment rights and benefits, including the underlying cost basis of the cable formula.⁹⁸

It is abundantly clear, however, that ILECs are not being handicapped in deploying new services, as the *Notice* presumes. Verizon reports more than 1 million FiOS subscribers. AT&T reports 231,000 subscribers, is purportedly growing at a pace of 10,000 per week and forecasts 1 million U-verse customers by the end of 2008.⁹⁹ ILEC video deployment is facilitated by streamlined state video franchise laws that provide for more favorable entry requirements than existing cable operators experienced.¹⁰⁰ Further, the FCC's rules provide for a 90-day shot clock for local processing of ILEC franchise applications as well as limitations on local build out requirements and fees that are not available to existing cable competitors.¹⁰¹ And because of the ILECs' superior pole attachment rights, they are able to deploy DSL or video service with no

⁹⁸ This concern for regulatory parity should be contrasted with the Commission's failure to address AT&T's ploy to avoid cable service regulation in deploying its U-verse cable service. *Office of Consumer Counsel v. Southern New England Tel. Co.*, 515 F. Supp. 2d 269 (D. Conn. 2007) (court determined that AT&T's U-verse is cable service).

⁹⁹ News Release, Verizon Caps Successful Year With Strong 4Q Results, January 28, 2008, <http://newscenter.verizon.com/press-releases/verizon/2008/verizon-caps-successful-year.html> (943,000 total FiOS TV customers at year-end; Verizon now has more than 1 million FiOS TV customers.) AT&T U-verse Media Kit, <http://www.att.com/gen/press-room?pid=5838> (231,000 U-verse TV subscribers in service, as of end of 4Q07 and approximately 12,000 new customers installed per week as of mid-December 2007).

¹⁰⁰ See California (Cal. Pub. Util. Code §§ 5800-5970); Connecticut (Conn. Gen. Stat. §§ 16-1 & 16-331 *et seq.*); Florida (Fla. Stat. §§ 610.102 *et seq.*); Georgia (Ga. Code Ann. §§ 36-76); Illinois (220 Ill. Comp. Stat. 5/21 & 5/70); Indiana (Ind. Code § 8-1-34); Iowa (Iowa Code § 477A); Kansas (Kans. Stat. Ann. §§ 12-2021 *et seq.* & 17-1902 *et seq.*); Michigan (Mich. Comp. Laws §§ 484.3301 *et seq.*); Missouri (Mo. Rev. Stat. § § 67.2677 – 67.2714); Nevada (Nev. Rev. Stat. § 711); New Jersey (N.J. Stat. Ann. §§ 48:5A-1 *et seq.*); North Carolina (N.C. Gen. Stat. §§ 66-350 *et seq.*); Ohio (Ohio Rev. Code Ann. §§ 1332 *et seq.*); South Carolina (S.C. Code Ann. §§ 58-12-300 *et seq.*); Texas (Tex. Util. Code Ann. §§ 66.001 *et seq.*); Virginia (Va. Code Ann. §§ 15.2-2108 *et seq.*); Wisconsin (Wis. Stat. § 66.0420).

¹⁰¹ See *First 621 Order*, 22 FCC Rcd 5101; *Second 621 Order*, 22 FCC Rcd 19633.

impact on their pole rents—even as they add physical lines, load and stress to poles, and displace cable attachments, in the process.¹⁰²

VI. RAISING CABLE’S POLE RENTS WILL INHIBIT VOICE COMPETITION AND BROADBAND DEPLOYMENT

a. The Rate Increase Proposal Is a Reversal of Congressional and FCC Policy.

Increasing the rent paid to electric utilities and ILECs for cable pole attachments used to transmit VoIP and other broadband services conflicts with the central goals of the Telecommunications Act of 1996 (“1996 Act”) to promote broadband deployment and competition in the local voice services market.¹⁰³ If the Commission is to remain faithful to the pro-competitive, market-opening provisions of the Communications Act, the cable rate should remain applicable for all attachments over which cable deploys its broadband and VoIP services.¹⁰⁴ The Commission has repeatedly determined that lower pole rents promote broadband deployment, but the *Notice* would impose a significant new “tax” on broadband deployment and services.

In 1998, the Commission found that increasing the cable pole rate for the provision of Internet services would conflict with Congressional objectives to promote the deployment of broadband and new advanced services:

¹⁰² Exhibit 3, Attachment 3 (Declaration of John Eichhorn); Kravtin Report ¶¶ 99-100.

¹⁰³ “[T]he Commission and each State commission . . . shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing . . . price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.” See § 706(a) of the 1996 Act.

¹⁰⁴ The *Notice* states that the Commission seeks to ensure that its regulatory framework “remains current and faithful to the pro-competitive, market-opening provisions of the Act in light of our experience over the past decade, advances in technology, and developments in the market for telecommunications and video services.” *Notice*, 22 FCC Rcd at 20196 ¶ 1. Nothing that has occurred over the last decade has diminished the monopoly market power of utilities with regard to poles or the bottleneck nature of those facilities that justified the original adoption of Section 224 in 1978. In fact, the incentive to abuse that power has increased. Kravtin Report ¶¶ 33-34, 110-111.

In specifying this rate, we intend to encourage cable operators to make Internet services available to their customers. We believe that specifying a higher rate might deter an operator from providing non-traditional services. Such a result would not serve the public interest. Rather, we believe that specifying the [cable rate] will encourage greater competition in the provision of Internet service and greater consumer benefits.¹⁰⁵

In 2002, this decision was successfully defended to the Supreme Court, which stated that the Commission's interpretation was consistent with Congress' general instruction in 1996 to "encourage the deployment" of broadband Internet capability and, if necessary, "to accelerate deployment of such capability by removing barriers to infrastructure investment."¹⁰⁶

Congress passed the 1996 Act to facilitate and accelerate deployment of advanced services and information technologies to all Americans.¹⁰⁷ In particular, Congress intended that the traditionally monopolistic local exchange market be opened to competition in order to unleash the "benefits competition will bring to consumers of local services. . . ."¹⁰⁸ Congress and the Commission were particularly interested in promoting facilities-based competition to the local telephone monopoly:

[T]he greatest long-term benefits to consumers will arise out of competition by entities using their own facilities. Because facilities-based competitors are less dependent than other new entrants on the incumbents' networks, they have the greatest ability and incentive to offer innovative technologies and service options to consumers. Moreover, facilities-based competition offers the best promise of ultimately creating a comprehensive system of competitive networks, in which today's incumbent LECs no

¹⁰⁵ *1998 Pole Order*, 13 FCC Rcd at 6794 ¶ 32.

¹⁰⁶ *Gulf Power*, 534 U.S. at 339. See also Kravtin Report ¶¶ 79, 95.

¹⁰⁷ S. Rep. No. 104-230, at 1 (1996) (Conf. Rep.). See also *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325, 11 FCC Rcd 15499, 15505 ¶ 1 (1996) (hereinafter "*Local Competition First Report and Order*").

¹⁰⁸ *Promotion of Competitive Networks in Local Telecommunications Markets*, Notice of Proposed Rulemaking and Notice of Inquiry in WT Docket No. 99-217, FCC 99-141, 14 FCC Rcd 12673, 12675 ¶ 2 (1999) (hereinafter "*Promotion of Competitive Networks NPRM*"). See also *Promotion of Competitive Networks in Local Telecommunications Markets*, First Report and Order and Further Notice of Proposed Rulemaking in WT Docket No. 99-217, FCC 00-366, 15 FCC Rcd 22983, 22987 ¶ 5 (2000) (hereinafter "*Promotion of Competitive Networks First R&O*") ("[C]ompetitive providers will continue to play a vital role . . . both by innovating themselves and by placing competitive pressure on the incumbents to offer more advanced services at attractive prices.").

longer will exert bottleneck control over essential inputs, but will compete on a more equal basis with their rivals.¹⁰⁹

Section 706 of the 1996 Act further directs that the Commission employ “regulatory forbearance” and other measures that “remove barriers to infrastructure investment.”¹¹⁰ The Commission and other federal agencies promoting these goals have consistently found that barriers to deployment of broadband and advanced services must be lowered, not raised.¹¹¹

¹⁰⁹ *Promotion of Competitive Networks First R&O*, 15 FCC Rcd at 22985-86 at ¶4.

¹¹⁰ See § 706(a) of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996), reproduced in notes under 47 U.S.C. § 157.

¹¹¹ See, e.g., *id.* at § 706(b); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, GN Docket 07-45, Notice of Inquiry, FCC 07-21, 22 FCC Rcd 7816, 7826 ¶ 32; *Promotion of Competitive Networks NPRM*, 14 FCC Rcd at 12687 ¶ 27; Jonathan S. Adelstein, Comm’r, FCC, Statement Before the Subcommittee on Rural & Urban Entrepreneurship, House Small Business Committee (May 9, 2007), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-272954A1.pdf; Deborah Taylor Tate, Comm’r, FCC, Remarks at the Rural Telecommunications Congress Conference (Oct. 24, 2006), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-268083A1.pdf; Separate Statement of Comm’r Jonathan S. Adelstein (rel. June 3, 2005) (“Somewhere between one and two million Americans currently use some form of VoIP services. These services promise a new era of consumer choice, and we must continue to promote the deployment of new technologies.”); *First 621 Order*, 22 FCC Rcd at 5205, Statement of Comm’r Robert M. McDowell (“I have long advocated the Commission doing all that it can to open new opportunities for entrepreneurs to have the freedom to construct new delivery platforms for innovative new services.”); *id.* at 5189, Statement of Chairman Kevin J. Martin (“The widespread deployment of broadband remains my top priority as Chairman and a major Commission objective. During my tenure as Chairman, the Commission has worked hard to create a regulatory environment that promotes broadband deployment.”); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, FCC 07-30, 22 FCC Rcd 5901, 5926, Statement of Chairman Kevin J. Martin (2007) (“I have long believed that the Commission should focus on creating a regulatory environment that promotes investment and competition by minimizing economic regulation.... Today’s classification eliminates unnecessary regulatory barriers for wireless broadband Internet access service providers and will further encourage investment and promote competition in the broadband market.”); U.S. Government Accountability Office, *Telecommunications: Broadband Deployment Is Extensive Throughout the United States, But It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas*, GAO-06-426 (May 2006).

¹¹¹ As reported by the FCC, as of the end of 2006, about 6.8 million end-user switched access lines were provided over coaxial cable connections. These lines represented about 61% of the 11.2 million end-user switched access lines that all CLECs reported providing over their own local loop facilities. CLECs reported providing 39% of their end-user switched access lines over their own local loop facilities. See *Local Telephone Competition: Status as of December 31, 2006*, Industry Analysis and Technology Division, Wireline Competition Bureau, at 2, (rel. Dec. 2007) (“*FCC Wireline Report*”), available at <http://www.fcc.gov/wcb/iatd/comp.html>. Since the end of December 2006, the cable industry’s facilities-based VoIP penetration has continued to increase and cable now serves approximately 13.7 million residential voice customers. See *Cable Industry Statistics*, NCTA website, available at <http://www.ncta.com/Statistic/Statistic/Statistics.aspx> (visited Feb. 11, 2008).

b. The Rate Increase Proposal Will Harm Voice Competition.

Since passage of the 1996 Act, the growth of cable-delivered VoIP is a bright spot, in stark contrast to the failure of the resale and unbundling regimes imposed by the Act. No other facilities-based alternative to the local ILEC monopoly has been as successful as cable VoIP.¹¹² This initial VoIP success should be nurtured by the same regulatory policy that emerged with cable's deployment of cable modem services. Spurred by the FCC's 1998 decision to retain the cable pole rate for Internet attachments, cable modem penetration and broadband exploded across the country.¹¹³ This rapid introduction of broadband service by the cable industry was the competitive impetus for the ILECs to finally make DSL service widely available.¹¹⁴ Cable VoIP is offering the same dramatic consumer benefits and the same explosion of voice competition as was experienced in the cable modem/DSL realm—this time with massive price reductions for voice services.¹¹⁵

¹¹² The cable industry's facilities-based VoIP penetration continues to increase and cable now serves approximately 13.7 million residential voice customers. See Cable Industry Statistics, NCTA website, available at <http://www.ncta.com/Statistic/Statistic/Statistics.aspx> (visited Feb. 29, 2008).

¹¹³ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Report, FCC 99-5, 14 FCC Rcd 2398, 2415 ¶ 37, 2419-20 ¶ 42 (1999) (hereinafter "706 Report") (in 1997 alone the cable television industry's spending on broadband deployment and high-speed cable modems totaled \$6 billion.) Since 1996 the cable industry has spent approximately \$110 billion to upgrade the network to deliver advanced services. See *Hearing on Broadband in Rural America, House Committee on Appropriations, Subcommittee on Agriculture, Rural Development, Food and Drug Administration and Related Agencies*, Remarks of Amy C. Tykeson, CEO Of BendBroadband and Chair of the NCTA's Rural and Small Operators Committee, Political Transcript Wire, Oct. 25, 2007 ("The cable industry has invested over \$110 billion to become the largest provider of broadband in America."); see also *Twelfth Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, FCC 06-11, 21 FCC Rcd 2503, 2524 ¶ 48 (2006) ("NCTA states that cable operators have invested almost \$100 billion since 1996 to replace coaxial cable with fiber optic technology and install new digital equipment in homes and system headends.").

¹¹⁴ *706 Report*, 14 FCC Rcd at 2419-20 ¶ 42 and n.84 ("All this investment, especially that by cable television companies and competitive LECs, appears to have spurred incumbent LECs to construct competing facilities.").

¹¹⁵ It is estimated that VoIP subscribership will expand to 23.7 million households by 2011. The annual consumer savings will be \$1.3 billion in 2007 and rise to \$3.2 billion in 2011. Over this five year period, consumers are expected to save \$11.2 billion. See Michael Pelcovits and Daniel Haar, *Consumer Benefits of Cable-Telco Competition*, at 11, available at http://www.micradc.com/news/publications/pdfs/MiCRA_Report_on_Consumer_Benefits_from_Cable.pdf.

Where cable VoIP is deployed with its lower pricing and superior features, ILECs have been compelled to compete with lower prices and improved service and features of their own. Triple play bundles of video, voice and cable modem services have been rolled out at very attractive prices by cable operators in virtually every state. The consumer is the winner as this process plays out—obtaining both lower prices and superior features.

However, despite great strides by the cable industry in recent years to introduce competition to the ILECs' voice service monopoly, the ILECs still control in excess of 82 percent of the switched access telephone market, with 87.8 percent of the residential voice market and 75.3 percent of the business market, according to the Commission's most recent report.¹¹⁶ The cable industry's ability to bring this long-sought facilities-based voice competition to every corner of America is still very vulnerable to cost pressures, especially unjustified new taxes such as the pole rate increase proposed in the *Notice*, which will impose an immediate system-wide penalty on cable operators that offer broadband and VoIP services.

The proposed pole rate increase will dramatically diminish the price advantage of this superior technology.¹¹⁷ Yet, the actual technology used by cable to offer a facilities-based alternative to monopoly residential phone service imposes no additional burden on any of the poles in a utility's network. In 1996, Congress contemplated multiple competitive local

¹¹⁶ *Local Telephone Competition: Status as of December 31, 2006*, Industry Analysis and Technology Division, Wireline Competition Bureau, at 2, bullets 1 & 2 (rel. Dec. 2007) ("*FCC Wireline Report*"), available at <http://www.fcc.gov/wcb/iatd/comp.html> (last visited Feb. 17, 2008). ILEC dominance was aided by its merciless decimation of the once thriving CLEC industry, whose 17.1% of switched access lines in the most recent report was its lowest percentage since 2003. See *FCC Wireline Report* at Table 1.

¹¹⁷ The actual technology used by cable to offer a facilities-based alternative to monopoly residential phone service imposes no additional burden on any of the poles in a utility's network. In 1996, Congress contemplated multiple competitive local exchange competitors each adding more physical lines on poles to deliver competitive voice service. Instead, cable used a new, advanced communications technology (VoIP) that results in no added impact on poles and no added lines to justify higher rents. See Kravtin Report ¶¶ 53-55.

exchange competitors each adding more physical lines on poles to deliver competitive voice service. Instead cable used a new, advanced communications technology (VoIP) that results in no added impact on poles and no added lines to justify higher rents. VoIP is pressuring ILECs to lower their-circuit switched prices. That competition has been estimated to directly and indirectly benefit consumers and small businesses by more than \$100 billion between 2007 and 2011.¹¹⁸ It makes no sense for the Commission to propose new cost barriers to this competition—especially in light of the foregoing demonstration that current cable pole rates are fair and do not constitute a subsidy to cable.

The proposed rate increase may well slow the roll out of facilities-based competitive voice services and undermine the national policy of promoting broadband services to rural and underserved areas. These areas are the most vulnerable today, as observed in the GAO’s Broadband Report.¹¹⁹ Increased pole rents will put one more unjustified drag on facilities-based competitive voice services, undermining the national policy of promoting facilities-based price competition. The Commission’s proposal would even drive up the pole rent for wireless attachments, further burdening the cost of competitive voice services to the benefit of the ILEC voice monopoly.¹²⁰

c. Applying the Cable Rate to CLECs.

The *Notice* explains that Time Warner Telecom, Inc. (“TWTC”) filed a White Paper with the Commission proposing that the Commission apply the cable rate to all attachments in order

¹¹⁸ Consumer Benefits from Cable-Telco Competition, http://www.micradc.com/news/publications/pdfs/MiCRA_Report_on_Consumer_Benefits_from_Cable.pdf.

¹¹⁹ See note 111, *supra*. See also Kravtin Report ¶ 80.

¹²⁰ *Notice*, 22 FCC Rcd at 20209 ¶ 34.

to “remove regulatory bias from investment decisions regarding the deployment of broadband and other services.”¹²¹ As a telecommunications carrier, TWTC is subject to the supra-compensatory telecommunications rate that substantially overcompensates utilities for attachments by assigning a disproportionate percentage of the cost of unusable space to telecommunications attachers.¹²² This higher CLEC rate is an unfortunate result of the unforeseen demise of the CLEC industry.¹²³

TWTC argues that the Commission has ample authority to apply the cable rate to all regulated telecommunications carrier attachments.¹²⁴ Comcast agrees. As noted by TWTC, Section 223(e) of the Act requires that rates must be nondiscriminatory and that if the Commission’s cost allocation guidelines result in a discriminatory rate, then such cost allocations can be overridden to eliminate the discrimination.¹²⁵ In addition, TWTC observes that the Commission has determined that “where access is mandated, the rates, terms and conditions of access must be uniformly applied to all telecommunications and cable operators that have or seek access.”¹²⁶ However, the Commission’s authority is even broader in that it may forbear from enforcing the Section 224(e) rate in order to promote the deployment of advanced services and the development of facilities-based voice competition.¹²⁷ In this regard, Section 706 specifically

¹²¹ *Id.* at 20199-200 ¶ 12, 20203-04 ¶ 21, 20206 ¶ 27.

¹²² *See* 24 U.S.C. § 224(e). As demonstrated previously, the cable formula rate already significantly overcompensates utilities for pole attachments and represents “found money” to cover costs that would otherwise be borne by the utilities themselves. *See* discussion at 12-19, *supra*.

¹²³ *See* discussion at 20-21, *supra*.

¹²⁴ *Notice*, 22 FCC Rcd at 20203-04 ¶ 21, 20206 ¶ 27, 20207-08 ¶ 30.

¹²⁵ *Id.* at 20203-04 ¶ 21.

¹²⁶ *Id.* (citing *Local Competition First Report and Order*, 11 FCC Rcd at 16073 ¶ 1156. TWTC also explains that the textual differences between Section 224(d) and (e) describing the pole rate formulas for cable and telecom indicates that the Commission included excessive costs under the telecom formula that once corrected, would largely do away with the disparity between the cable and telecom rates by significantly lowering the telecom rate. *Notice*, 22 FCC Rcd at 20207-08 ¶ 30.

¹²⁷ *See* discussion at 30-34, *supra*.

directs the Commission to employ “regulatory forbearance” in order to promote these key Congressional objectives.

These principles argue forcefully for the application of the cable rate to all Section 224 regulated attachers (including CLECs). Furthermore, CLECs suffer generally from the same lack of parity as cable relative to ILEC pole attachment rights.¹²⁸

The Commission’s rationale in the *Notice* for “questioning” TWTC’s proposal is simply wrong. As explained in the *Notice*:

We question TWTC’s assertion that the cable rate should apply to all pole attachments particularly because, as discussed above, the cable rate *does not include an allocation of the cost of unusable space*.¹²⁹

That statement is incorrect. As explained above, and as the Commission itself has repeatedly recognized (most recently in 2001), “claims that cable attachers do not pay for any costs of unusable space is a complete mischaracterization of the Pole Attachment Act and the Commission’s rules.”¹³⁰ The cost of unusable space is properly and equitably allocated to cable attachers under the cable formula. Consequently, there is no reason in law or policy that the Commission would not establish the cable rate as the attachment rate for all Section 224 regulated attachers.

d. Litigation and Uncertainty from the Proposed New Pole Rate.

One of the significant benefits of the existing cable rate formula is the guidance that it provides to attachers and utilities for establishing lawful pole attachment rates. The current

¹²⁸ See discussion at 24-30, *supra*. See also Kravtin Report ¶¶ 75-78.

¹²⁹ *Notice*, 22 FCC Rcd at 20204 ¶ 22 (emphasis added).

¹³⁰ *ACTA v. APCO*, 16 FCC Rcd at 12236 ¶ 60. See discussion at 12-15 explaining the cost allocation of unusable space under the cable formula.

formula is the product of hundreds of Commission cases and a dozen judicial appeals interpreting virtually every nuance of the utility cost inputs. The body of law that has developed concerning the cable rate formula is extensive and invaluable in allowing innumerable negotiations of pole agreements around the country to reach successful resolution without the need to bring disputes to the Commission.¹³¹ Certified states likewise rely upon this body of law to facilitate the efficient establishment of utility pole rents without the need for regulatory intervention.¹³²

The Commission may find itself reliving the difficult period when it established the TELRIC cost model for unbundled network elements¹³³ and the high-cost model for large carriers in the Universal Service Fund.¹³⁴ As explained in the Furchtgott-Roth Report:

Even if the Commission were finally to adopt and to defend a uniform rate structure for broadband services, the Commission would then be caught in endless and tedious allocation determinations between broadband and other services on pole attachments. Few pole attachments are purely broadband. What part of the pole attachment receives the broadband rate versus other rates? The Commission must again take months if not years to write allocation rules to fairly assess a rate when only a fraction of customers use a fraction of capacity during a fraction of time for broadband services like VOIP, rather than for video. Further months and years will be required to make determinations for individual utilities. All of these decisions would again be subject to judicial review.¹³⁵

¹³¹ The Commission recognizes that its cable rate formula “has facilitated negotiations and settlements among the parties either after complaints have been filed or before the dispute reached the level of a formal complaint since both parties knew what the Commission’s determination would be.” *Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, 104 FCC 2d 412, ¶ 12 (1986).

¹³² See, e.g., *Oregon Pole Attachment Rulemakings*, 2007 Ore. PUC LEXIS 115, at *24 (“In addition, use of the cable rate will allow parties to rely on the case law interpreting that rate, providing guidance in forming their contracts.”)

¹³³ See *Local Competition First Report and Order*, 11 FCC Rcd at 15812-929 ¶¶ 618-862.

¹³⁴ See Furchtgott-Roth Report at 20; *Access Charge Reform*, Sixth Report and Order in CC Docket No. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, and Eleventh Report and Order in CC Docket No. 96-45, FCC 00-193, 15 FCC Rcd 12962 (2000).

¹³⁵ Furchtgott-Roth Report at 21.

By maintaining the current cable pole rate, the Commission will ensure continuity and predictability in pole rate negotiations and proceedings.

VII. THE COMMISSION REJECTED TRUE PARITY TO FACILITATE ILEC ENTRY INTO VIDEO

The *Notice* expresses great concern that ILECs should receive regulatory parity as cable begins to compete for ILEC voice customers.¹³⁶ But the Commission did not pursue that same goal in facilitating ILEC entry into the video market. Instead, the Commission actively promoted ILEC video entry to ensure they would overcome the perceived advantages of cable's incumbency and scale.

In its Section 621 proceeding, the Commission observed that circumstances for competitive entry into video are considerably different now than those in existence at the time incumbent cable operators obtained their franchises.¹³⁷ Given the numerous advantages of ILEC voice incumbency, that same rationale should be applied as cable attempts to enter the local voice market. In the Section 621 *Order*, the Commission stated that “the record demonstrates that requiring entry on the same terms as incumbent cable operators may thwart entry entirely or may threaten new entrants’ chances of success once in the market.”¹³⁸ This rationale against imposing parity among competitors applies more forcefully to the local voice market where “incumbent LECs’ networks have been built over the course of many years, generally under a regime of rate of return regulation, and have been supported by an elaborate system of explicit and implicit subsidies.”¹³⁹ Here, in particular, “parity” will mean *increasing* costs to new

¹³⁶ *Notice*, 22 FCC Rcd at 20206 ¶¶ 26, 27.

¹³⁷ *First 621 Order*, 22 FCC Rcd at 5114 ¶ 26.

¹³⁸ *Id.*

¹³⁹ *Promotion of Competitive Networks NPRM*, 14 FCC Rcd at 12684-85 ¶ 19.

entrants, despite the absence of a subsidy—thereby creating a new and unjustified barrier to cable entry into broadband and voice markets.

Despite the tremendous financial resources of the two principal ILECs (AT&T and Verizon) seeking entry into the video market, the Commission believed that the ILECs required a number of more favorable video regulatory conditions to overcome the advantages of cable incumbency in the video market. Toward that end, the Commission created the following more favorable franchising regime for the ILECs:

- A Commission “shot clock” to ensure franchises are quickly granted.¹⁴⁰
- No “build out” requirements, which has left ILECs a free hand in selecting the community areas to deploy their video services.¹⁴¹ By contrast, cable was left with significant franchising build out obligations.¹⁴²
- Market share proportionality caps ILEC franchise burdens when they offer video (franchise fee and PEG costs assessed on a percentage of revenues basis, not same dollar payment as incumbent cable operator) to prevent an “unreasonable barrier to entry.”¹⁴³
- It is not *per se* unreasonable for an “established incumbent to have a greater PEG carriage obligation or provide greater PEG support than a fledgling new entrant...”¹⁴⁴

The Commission does not, and cannot, explain why it would choose to cast parity aside in promoting video competition, while embracing it when it amounts to a barrier to broadband and voice competition.

¹⁴⁰ *First 621 Order*, 22 FCC Rcd at 5136-37 ¶¶ 71-72; 47 C.F.R. § 76.41(d).

¹⁴¹ *First 621 Order*, 22 FCC Rcd at 5121-22 at ¶¶ 40-41.

¹⁴² Likewise, many of the 18 state video franchise laws do not impose cable service deployment obligations on ILECs competitors until they achieve 30 percent of the video market. Some have no deployment obligations whatsoever (for example, Connecticut, Florida, Indiana, Iowa, Kansas, Nevada, North Carolina, South Carolina and Texas).

¹⁴³ *First 621 Order*, 22 FCC Rcd at 5154 ¶ 120; *Second 621 Order*, 22 FCC Rcd at 19639-40 ¶ 14 n.43.

¹⁴⁴ *Second 621 Order*, 22 FCC Rcd at 19639-40 ¶ 14.

The rate proposal in the *Notice*¹⁴⁵ will penalize *every* pole attachment when a cable operator offers high speed data or voice to *any* customer by imposing dramatically higher costs and a significant investment disincentive. Because cable’s voice and Internet access services have penetration rates far below cable’s video services, the penalty for providing such services will be extreme—a handful of VoIP subscribers could result in significantly increased pole rents on all poles spread throughout a cable system. Cable voice customers would bear a pole rate burden that is many times the burden on ILEC voice customers. The first VoIP customer in Florida, for example, could trigger a pole penalty on one million poles, for a staggering cost burden on that service. Imagine the impact on the deployment of facilities-based voice competition as cable VoIP providers are confronted with annual pole rent increases totaling hundreds of thousands of dollars on a market-by-market basis and hundreds of millions of dollars nationwide – just as cable begins providing the first true facilities-based voice competition in local markets. This is precisely the kind of “unreasonable barrier to entry” the Commission eliminated for ILEC entry into the video market—allowing only proportional costs to be absorbed by a small initial video customer base.

The cable rate is already fully compensatory to utilities and the addition of new voice and broadband services by cable operators does not place any additional cost or other burden on the pole owner. Therefore, in the context of cable’s entry into the local voice market, there exists no factual or policy basis for erecting an unreasonable barrier to entry in the form of increased pole rents for broadband services.

¹⁴⁵ *Notice*, 22 FCC Rcd at 20196-97 ¶¶3, 6.

VIII. THE COMMISSION MUST SERVE AS AN EFFECTIVE FORUM TO REMEDY POLE ABUSES

a. The Commission Must Retain Its “Sign and Sue” Rule to Ensure Effective Regulation of Pole Attachments.

One of the most effective means the Commission has to ensure that utilities provide just and reasonable pole rates, terms and conditions and negotiate in good faith is its so-called “sign and sue” rule. Due to the superior bargaining power of pole owners over attachers, the rule allows an attacher to execute a pole attachment agreement containing unjust and unreasonable rates, terms and conditions imposed upon the attacher and subsequently challenge the agreement at the Commission.¹⁴⁶ This important rule helps ensure that, notwithstanding a utility’s unequal bargaining position in pole attachment agreement negotiations, attachers are not forced to choose between timely access to poles on the one hand, for example, while accepting unreasonable rates, terms and condition on the other.¹⁴⁷

Equally significant, the Commission’s long-standing “[w]illingness to review contract provisions and the possibility of either revising an unlawful term or condition or ordering an adjustment to the maximum rate because of an onerous term or condition [has] serve[d] as an

¹⁴⁶ *Selkirk Comm., Inc. v. Florida Power & Light*, 8 FCC Rcd 387 (rel. Jan. 14, 1993)(“[Florida Power & Light] relies on the pole lease agreement which allows a higher charge and that such an agreement was negotiated through arms length bargaining. FPL’s reliance on this argument is misplaced. Due to the inherently superior bargaining position of the utility over the cable operator in negotiating the rates, terms and conditions for pole attachments, pole attachment rates cannot be held reasonable simply because they have been agreed to by a cable company.”); *see also* Kravtin Report ¶ 112 (“By virtue of [utilities’] ownership and control of existing pole networks, cable companies and other third party licensees negotiating pole rental fees do not enjoy even close to an equal bargaining position with regard to the setting of pole rates. The frequent suggestion by utilities that there is an equal bargaining position between itself and third party licensees over rents, or alternatively, a ‘free market’ for poles would require the existence of an established, active market for pole space in which cable and other third party attachers have realistic choices with regard to renting and/or providing their own pole space. . . . Such conditions do not exist in the real world.”)

¹⁴⁷ *See* Kravtin Report ¶¶ 115, 116 (“By practical necessity, firms, either early in their life cycles or in early or critical stages of their business plans, have little recourse but to accept high rates well in excess of the regulated formula rate for access to essential facilities, even though those rates may not be sustainable in the long run, in order to gain entry, establish a foothold in a market, or meet franchise service requirements.”).

impetus to utilities to negotiate in good faith with regard to terms and conditions of the agreement before they are presented to the Commission,” thus reducing the incidence of disputes over the last three decades.¹⁴⁸

Despite the Commission’s more than 30-year adherence to this critical component of effective pole attachment regulation, the Commission has suddenly decided, without rationale or discussion, to examine “whether [to] adopt contours to the rule, such as time-frames for raising written concerns about a provision of a pole attachment agreement.”¹⁴⁹

The Commission should not weaken the rule. Instead, the Commission should embrace its recent and vigorous defense of the rule before the United States Court of Appeals for the District of Columbia Circuit. In *Southern Co. Serv. Inc. v. FCC*, 313 F.3d 574 (D.C. Cir. 2002), the rule was upheld as “a reasonable exercise of the agency’s duty under the statute to guarantee fair competition in the attachment market.” The Court found that the Commission’s “brief to the court aptly dispose[d] of the issue” as follows:

The utilities do not describe or explain under what circumstances the Commission’s condoning of ‘sign and sue’ undermines reliance on private negotiation or when exactly it is unfair to the utilities, but we observe that ‘sign and sue’ is likely to arise only in a situation in which the attacher has agreed, for one reason or another, to pay a rate above the statutory maximum or otherwise relinquish a valuable right to which it is entitled under the Pole Attachments [*sic*] Act and the Commission’s rules. If the rates and conditions to which the attacher later objects are within the statutory framework, then the utility has nothing to fear from the attacher’s complaint. The attacher would not be entitled to relief.

For example, one scenario in which ‘sign and sue’ is likely to arise is when the attacher acquiesces in a utility’s ‘take it or leave it’ demand that it pay more than the statutory maximum or relinquish some other valuable right—without any *quid*

¹⁴⁸ *Amendment of the Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, Report and Order, 2 FCC Rcd at 4397 ¶ 77. See Kravtin Report ¶ 118.

¹⁴⁹ *Notice*, 22 FCC Rcd at 20210 n.110.

pro quo other than the ability to attach its wires on unreasonable or discriminatory terms. Of course the Pole Attachments Act was designed to prevent such an exercise of monopoly power that would nullify the statutory rights of cable systems or telecommunications carriers to obtain both immediate access and timely regulatory relief to the extent access is unreasonable or discriminatory. The utility is statutorily required to grant prompt, nondiscriminatory access and may not erect unreasonable barriers or engage in unreasonable delaying tactics. So in this scenario, where the utility gives nothing of value in exchange for the attacher's coerced 'agreement' to accept unreasonable or discriminatory access, the utility has no right to complain if the attacher 'signs and sues' to challenge this abuse of the utility's monopoly control over the essential transport facilities.

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No conceivable change in circumstances would make the Commission's argument in *Southern Co.* any less applicable today.¹⁵¹ As shown previously, utilities have more incentive than ever and continue to impose unjust and unreasonable agreements on attachers. The Commission's rule is essential because in some circumstances, cable operators or telecom providers may need to sign an unreasonable pole attachment agreement while they are undergoing time-sensitive build-outs or plant upgrades, and cannot afford to be delayed by protracted negotiations or litigation before the Commission. Similarly, cable operators will often agree to unreasonable terms simply to avoid litigation in the hope that the issue may never be

¹⁵⁰ *Southern Co.*, 313 F.3d at 583.

¹⁵¹ Indeed, nothing has changed since the Pole Attachment Act was passed in 1978 with regard to the utilities' absolute, monopoly control over poles, which is precisely what led to the implementation of the rule in the first instance, as the Commission recognized in reaffirming its sign and sue rule in 2001. *2001 Reconsideration Order*, 16 FCC Rcd 12112-13 ¶¶ 12-13 ("Electric utilities urge us to declare negotiated agreements for pole attachments inviolate, asserting negotiated market-based rates assure just compensation for pole attachments. Electric utilities assert there is a robust and competitive free market for pole attachments and that utilities lack any incentive to discriminate against attaching entities. . . . Contrary to [the utilities'] arguments, the record as a whole does not demonstrate that the market for pole attachments is fully competitive or that the utilities now lack any incentive to discriminate against attaching entities. . . . [C]ontrary to [the utilities'] assertions, the original purpose of the Pole Attachment Act, to prevent utilities from charging monopoly rents to attach to their bottleneck facilities, did not change with the 1996 Act. Nothing in the record demonstrates that the utilities' monopoly over poles has since changed. Upon consideration of the record, we affirm our decision not to impose additional regulation on either the negotiation process or the rules for resolution of complaints arising out of failed negotiations. We reject assertions by utilities that our rules frustrate negotiations. . . . We continue to reject arguments by utilities that attaching parties should be required to take exception to terms or conditions when the pole attachment agreement is negotiated or be estopped from filing a complaint about those issues."), *aff'd*, *Southern Co. Serv., Inc. v. FCC*, 313 F.3d 574, 583 (D.C. Cir. 2002). See also Kravtin Report ¶¶ 114-120.

litigated if the utility does not enforce the provision. Without the prospect of future relief from the Commission as necessary, these coercive utility practices would only be exacerbated and render pole attachment regulation meaningless.

Even imposing “time frames” for challenging unreasonable rates, terms and conditions in executed agreements would undermine effective pole attachment regulation. For example, an attacher must often sign an agreement containing a rate, term or condition that the utility will not adequately explain. In the event the utility eventually implements the rate, term or condition in an unreasonable manner, the attacher has some protection from the utility because the attacher retains recourse at the Commission. There are also situations where a utility invokes a long-standing pole attachment agreement provision in a new way that, from the attacher’s perspective, is unjust and unreasonable. At that point (whenever that might be in the pole owner-attacher relationship), the attacher must have recourse at the Commission to ensure just and reasonable access.

If utilities knew all they had to do was wait out a specific time-frame before imposing/interpreting the unreasonable conditions, monopoly abuses would be rampant. The only way attachers could avoid such consistent abuses would be to file a complaint following the execution of virtually every new pole attachment agreement before their Section 224 rights were artificially cut off. This is not what Congress intended when it mandated the Commission to “provide that [pole attachment] rates, terms and conditions are just and reasonable.”¹⁵²

¹⁵² 47 U.S.C. § 224(b)(1). Indeed, in the early days of pole attachment regulation, the Court of Appeals for the District of Columbia Circuit rejected an early utility challenge to the “sign and sue” rule finding instead that: “The statute itself is all-encompassing in its wording: the FCC is to ‘regulate the rates, terms and conditions for pole attachments to provide that such rates, terms, and conditions are just and reasonable,’ and is authorized to ‘hear and resolve complaints concerning such rates, terms, and, conditions.’ This sweeping language is consistent with the

In sum, in order to fulfill its statutory mandate, the Commission must maintain its “sign and sue” rule as is.

b. The Commission’s Current Rules Regarding Refunds and Access Denials Do Not Discourage Pre-Complaint Mediation.

The Commission also inquires as to whether revision or elimination of its rule measuring refunds from the date of the complaint (Rule 1.1410(c)) and its rule requiring parties denied access to file complaints within 30 days of the denial (Rule 1.1404(m)) discourage pre-complaint mediation.¹⁵³ The suggested changes to the Commission’s rules in this regard are not warranted. The Commission’s rules are flexible enough to encourage pre-complaint mediation, while ensuring that attachers receive the relief to which they are entitled.

For example, Rule 1.1410(c) is not a hard and fast rule allowing refunds back only to the date of the complaint in all cases. Rather, the Commission has interpreted Rule 1.1410(c) to allow refunds prior to a complaint filing in cases where the “proper dispatch of business and the ends of justice” require, pursuant to Rule 1.1415. In fact, the cases where pre-complaint refunds have been awarded also involved pre-complaint mediation between the parties. For example, in *Cable Texas, Inc. v. Entergy Serv., Inc.*,¹⁵⁴ the Commission awarded refunds, plus interest, back

urgings of the Act’s sponsors, who were alarmed by ‘numerous abuses of [the utilities’] monopoly power,’ and who encouraged Congress to ‘act quickly’ for the protection of ‘consumers now receiving cable television as well as consumers who desire access to this service in the future.’ . . . [The utilities] point to no evidence whatsoever that Congress meant to deny the FCC the disputed power. . . . Moreover, this view of the legislative intent is supported by the agency’s interpretation of the statute. The FCC concluded that it would be ‘powerless to act in accordance with its mandate’ if it were required to await the expiration of existing contracts before granting relief to CATV lessees. . . . For the reasons stated, we uphold the FCC’s orders. The Commission may proceed ‘to hear and resolve complaints regarding the arrangements between cable television systems and the owners or controllers of utility poles,’ including those involving preexisting contracts, using the methods for calculating and apportioning costs that it has prescribed.” *Monongahela Power Co. v. FCC*, 655 F.2d 1254, 1256-57 (D.C. Cir. 1981) (internal citations omitted).

¹⁵³ Notice, 22 FCC Rcd at 20210 n.110.

¹⁵⁴ 14 FCC Rcd 6647 (1999).

to five months prior to the time the complaint was filed. The Commission noted that “[t]he filing of the complaint was delayed because CTX observed our preference for negotiated settlement of disputes. The fee is not a recurring one. We find that this is not the normal situation anticipated in [] Section 1.1410(c). For that reason and reasons of justice, we will order the refund to CTX” in the amount it paid prior to the date the complaint was filed.¹⁵⁵

Similarly, in *Knology, Inc. v. Georgia Power Co.*,¹⁵⁶ the Commission “agree[d] with Knology that [it has] broad authority to fashion remedies in pole attachment proceedings.” The Commission explained in *Knology* that where an attacher believes it is being treated unreasonably, “[t]he remedy is to promptly question [those] practices or charges . . . and begin negotiations concerning those practices of charges. If negotiations fail or would be fruitless, attachers may promptly seek relief . . . at the Commission.” As a result, in that case, “[b]ecause Knology began its discussions with Georgia Power concerning make-ready costs several months prior to filing its complaint, [the Commission] believe[d] it [was] appropriate to depart from [its] general rule that the filing of a complaint marks the beginning of the refund period.”¹⁵⁷

Consequently, rather than reform its long-standing rules, the Commission should continue to use its “broad authority to fashion remedies,” when the “proper dispatch of business and the ends of justice” require.

¹⁵⁵ *Id.* at 6653-54 ¶ 19. It is essential to point out here that with regard to recurring rental fees, some utilities have been taking advantage of the general refund rule and invoicing attachers exorbitant rates, often resulting in millions of dollars of over-charges. In these types of cases where over-charges are blatant, attachers should not be forced to (1) immediately file a complaint (resulting in numerous, but unnecessary cases at the Commission and excessive legal fees) or (2) pay the millions of dollars in over-charges in the hopes that one day the money will be refunded following an expensive complaint case. Instead, just as it does in the case of non-recurring fees, the Commission should encourage the parties in rental rate cases to “promptly question the charges” and “begin negotiations.” Otherwise, some utilities will continue to abuse the refund rule in this manner and the Commission’s refund rule will almost certainly discourage pre-complaint mediation between the parties.

¹⁵⁶ 18 FCC Rcd 24615 (2003).

¹⁵⁷ *Id.* at 24639-40 ¶ 57.

IX. ILECS ARE NOT PROTECTED ATTACHERS UNDER SECTION 224

a. Section 224 Protects Attachers From Utilities.

The *Notice* inquires whether ILECs are covered by Section 224(a)(4) and (b)(1) of the Pole Attachment Act and, therefore, are able to seek Commission protection for unjust and unreasonable rates, terms and conditions imposed by electric utilities with regard to pole attachments.¹⁵⁸ The Pole Attachment Act clearly and unambiguously excludes ILECs from its protections.

The *Notice* acknowledges that the Pole Attachment Act states “[f]or purposes of this section, the term ‘telecommunications carrier’ (as defined in section 3 of this Act) does not include any incumbent local exchange carrier as defined in section 251(h)” of the Communications Act.¹⁵⁹ Notwithstanding this clear exclusion from Section 224 protections, the petitioner USTelecom claims that ILECs are entitled to just and reasonable rates, terms and conditions as “provider[s] of telecommunications service,” under Sections 224(a)(4) and (b)(1), although they are not entitled to access rights as “telecommunications carrier[s],” under Section 224(f).

Seizing on the syntactic distinction between “telecommunications carrier” and “provider of telecommunications service,” USTelecom asserts that because Section 224(a)(4) defines “pole attachments” as attachments by “any cable television system or provider of telecommunications service,” and because Section 224(b)(1) requires that the “rates, terms and conditions” for “pole attachments” be “just and reasonable,” that ILECs are at least entitled to the protections of

¹⁵⁸ *Notice*, 22 FCC Rcd at 20204-06 ¶¶ 23-25. This issue was raised in a rulemaking petition filed by the United States Telecom Association (“USTelecom”). *Id.* at 20199-200 ¶12.

¹⁵⁹ 47 U.S.C. § 224(a)(5).

224(b)(1) as “providers of telecommunications service.” In so doing, USTelecom ignores the plain language of the Pole Attachment Act, its legislative history and Commission precedent.

Specifically, subsection 224(a)(5) incorporates the definition of “telecommunications carrier” from Section 3 of the Communications Act. Under the Communications Act, “[t]he term ‘telecommunications carrier’ means any provider of telecommunications services, except that such term does not include aggregators of telecommunications services. . . .”¹⁶⁰ Connected by the word “means,” the two terms are equivalent, such that one can replace the other. Because the terms are interchangeable, the use of “provider of telecommunications services” rather than “telecommunications carrier” in Section 224(a)(1) is irrelevant: it is a distinction without a difference. Accordingly, “providers of telecommunications services” that are also “incumbent local exchange carriers” under Section 251(h) are excluded from protection as pole attachers.

There are other indicia in Section 224 that ILECs are not included in the classes of attachers intended to be protected. For example:

- Section 224(e)(1) requires the FCC to adopt regulations no later than February 1, 1998 controlling the telecom rate for pole attachments. Section 224(d)(3) applies the cable rate to attachments by cable and telecommunications carriers during the two year period up to February 1, 1998. An ILEC providing telecommunications services falls within neither definition, leaving no statutory authority under which the Commission could adopt a formula to determine such rates.¹⁶¹

¹⁶⁰ 47 U.S.C. § 153(44).

¹⁶¹ Further, subsection (b)(1) grants the Commission the power generally to “regulate” rates, to hear complaints, and to enforce actions taken in complaint proceedings. *See* Section 224(b)(1). The Commission’s authority to adopt a formula to govern the rates charged arises instead from subsections (e)(1) and (e)(4), which direct the Commission to adopt regulations “to govern the charges for pole attachments by telecommunications carriers to provide telecommunications services . . .” and set the effective date as February 8, 2001. *See* Section 224(e)(1), (e)(4). Subsection (b)(1) refers only to “pole attachments,” rather than to specific attaching entities; in contrast, subsection (e)(1) refers to “telecommunications carriers,” which the ILECs concede they are not, in the context of Section 224. Thus, the only jurisdictional hook the ILECs offer under (b)(1), does not actually allow the Commission to set a formula adopting rates: the Commission could “regulate,” but not actually “govern the charges for” pole attachments by ILECs to the poles of other utilities. An interpretation leading to such an absurd result would contravene the

- Section 224(g) would be rendered a nullity. This subsection directs utilities that provide telecommunications or cable services to include, in calculating their costs of service, an “equal amount” to the pole attachment rate “for which such company would be liable” under the Act.¹⁶² If an attachment by a utility constituted a “pole attachment” within the meaning of the Act, this section would be superfluous.¹⁶³

Even if the express language of Section 224 did not so clearly exclude ILECs from coverage, the legislative histories of the 1978 Pole Attachment Act and the 1996 amendments make it abundantly clear that the purpose of Section 224 is to protect attachers from ILECs. As previously explained, the 1978 Pole Attachment Act was passed in order to protect cable television companies from the extensive documented abuses by pole owning utilities, principally ILECs whose anti-competitive tactics have been exhaustively documented.¹⁶⁴ The legislative history of the 1996 amendments reflects an attempt to reconcile Senate and House bills. The alternate use of “telecommunications carrier” and “provider of telecommunications services” in the final version of the legislation as passed simply reflects a stylistic distinction between the drafters of each of the two foundation bills, rather than a substantive difference. Moreover, the Conference Report reconciling the two bills simply makes no reference to this difference in language. Including ILECs within the protections of Section 224 would have warranted some mention by the Congress in light of underlying purposes of the Pole Attachment Act, to protect

norms of statutory interpretation. *See Trans Alaska Pipeline Rate Cases*, 436 U.S. 631, 643 (1978) (stating “This Court, in interpreting the words of a statute, has ‘some scope for adopting a restricted rather than a literal or usual meaning of its words where acceptance of that meaning would lead to absurd results. . . .’” (internal citations omitted)).

¹⁶² 47 U.S.C. § 224(g).

¹⁶³ Under the rules of statutory interpretation, “[a] statute should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant.” *Blackman v. Dist. of Columbia*, 456 F.3d 167, 177 (D.C. Cir. 2006) (quoting *Hibbs v. Winn*, 542 U.S. 88, 101 (2004)).

¹⁶⁴ *See* pages 8-12, *supra*.

third-party attachers from ILECs and electric utilities.¹⁶⁵ Finally, the Commission has already interpreted these provisions of Section 224 to exclude ILECs.¹⁶⁶

b. Congress Has Established Utility Joint Ownership Relations at the State Level.

Many states dictate joint ownership relations between ILECs and electric utilities already. For example, in states where the FCC regulates pole attachments, electric and phone utilities are often either required to grant use of their facilities to each other on reasonable terms¹⁶⁷ or must seek prior approval of facility lease agreements with other utilities subject to PSC modification.¹⁶⁸ If ILECs experience issues with electric utility pole owners, there are state-

¹⁶⁵ The Conference Report does describe other modifications that were made to the Senate version, discussing the addition of subsections (e)(1), (e)(2), (g), (h) and (i) and the purpose behind those additions. *See* H.R. Rep. No. 104-458 (1996) (Conf. Rep.), *reprinted in* 1996 U.S.C.C.A.N. 124.

¹⁶⁶ *1998 Pole Order*, 13 FCC Rcd at 6781 ¶ 5 (stating “Because, for purposes of Section 224, an ILEC is a utility but is not a telecommunications carrier, an ILEC must grant other telecommunications carriers and cable operators access to its poles, *even though the ILEC has no rights under Section 224 with respect to the poles of other utilities*”) (emphasis added), *aff’d*, *NCTA v. Gulf Power Co.*, 534 U.S. 327 (2002).

¹⁶⁷ *See, e.g.*, Colo. Rev. Stat. § 40-4-105 (1) (Whenever the commission . . . finds that the public convenience and necessity require the use by one public utility of the conduits, subways, tracks, wires, poles, pipes, or other equipment, or any part thereof on, over, or under any street or highway that belongs to another public utility . . . the commission by order may direct that such use be permitted and prescribe reasonable compensation and reasonable terms and conditions for the joint use.”); Ind. Code Ann. § 8-1-2-5 (a) (“Every public utility, and every municipality, and every person, association, limited liability company, or corporation having tracks, conduits, subways, poles, or other equipment on, over, or under any street or highway shall for a reasonable compensation, permit the use of the same by any other public utility or by a municipality owning or operating a utility, whenever public convenience and necessity require such use . . .”); N.C. Gen. Stat. § 62-42 (“ . . . whenever the Commission, after notice and hearing had upon its own motion or upon complaint, finds . . . [t]hat additions, extensions, repairs or improvements to, or changes in, the existing plant, equipment, apparatus, facilities or other physical property of any public utility, of any two or more public utilities ought reasonably to be made . . . the utilities so designated shall be given such reasonable time as the Commission may grant within which to agree upon the portion or division of the cost of such additions . . .”); 66 Pa. Cons. Stat. § 2904 (“The commission may . . . by order, require any two or more public utilities, whose lines or wires form a continuous line of communication, or could be made to do so by the construction and maintenance of suitable connections or the joint use of facilities . . . to establish and maintain through lines within this Commonwealth between two or more such localities.”)

¹⁶⁸ *See, e.g.*, Ala. Code § 37-4-41 (“[T]he question whether the proposed sale and conveyance or lease is consistent with the interests of the public shall be determined by the Public Service Commission, and if the commission determines that the proposed sale and conveyance or lease is consistent with the interests of the public, its determination shall be shown by its approval of the proposed sale and conveyance or lease.”); Mo. Rev. Stat. §§ 392.300 and 393.190 (requiring prior approval of the Missouri PSC before electric or phone companies enter lease agreements); R.I. Gen. Laws § 39-3-24 (“With the consent and approval of the division, but not otherwise . . . [a]ny two (2) or more public utilities doing business in the same municipality or locality within this state, or any two (2) or

based remedies already available.¹⁶⁹ Moreover, states that have preempted the FCC's Section 224 pole attachment authority through certification regulate pole attachment terms between ILECs and electric utilities as well as cable.¹⁷⁰ Congress clearly took relations between ILECs and electric utilities away from the FCC intentionally, and reinforced it with a reverse state preemption right.

more public utilities whose lines intersect or parallel each other within this state... may enter into contracts with each other that will enable the public utilities to operate their lines or plants in connection with each other.”); Tenn. Code Ann. § 65-4-112 (“No lease of its property, rights, or franchises, by any such public utility, and no merger or consolidation of its property, rights and franchises by any such public utility with the property, rights and franchises of any other such public utility of like character shall be valid until approved by the authority...”).

¹⁶⁹ Most state statutes treat only ILECs and electric companies as utilities. *See, e.g.*, Ala. Code § 37-4-1; Colo. Rev. Stat. § 40-1-103(1)(a); Ind. Code Ann. § 8-1-2-1; Mo. Rev. Stat. § 386.020; N.C. Gen. Stat. § 62-3 (23); 66 Pa. Cons. Stat. § 102; R.I. Gen. Laws § 39-1-2 (20); Tenn. Code Ann. § 65-4-101 (6).

¹⁷⁰ *See, e.g.*, 26 Del. Code Ann. § 201 (“The Commission shall have exclusive original supervision and regulation of all public utilities and also over their rates, property rights, equipment, [and] facilities. . . . Such regulation shall include the regulation of the rates, terms and conditions for any attachment (except by a governmental agency insofar as it is acting on behalf of the public health, safety or welfare) to any pole, duct, conduit, right-of-way or other facility of any public utility...”); 220 Ill. Comp. Stat. § 5/7-102 (“Unless the consent and approval of the Commission is first obtained . . . [n]o 2 or more public utilities may enter into contracts with each other that will enable such public utilities to operate their lines or plants in connection with each other.”); Mass. Ann. Laws Ch. 166, § 25A (“Attachment”, means any wire or cable for transmission of intelligence by telegraph, wireless communication, telephone or television, including cable television, or for the transmission of electricity for light, heat, or power and any related device, apparatus, appliance or equipment installed upon any pole or in any telegraph or telephone duct or conduit owned or controlled, in whole or in part, by one or more utilities.”); N.Y. Pub. Serv. Law § 119-a (“The commission shall prescribe just and reasonable rates, terms and conditions for attachments to utility poles and the use of utility ducts, trenches and conduits.”).

CONCLUSION

The Commission's current cable rate more than fully compensates utility pole owners while promoting the important Commission goals of broadband deployment and facilities-based voice competition. For these reasons, the Commission should not adopt its proposed new pole tax and should apply the cable rate to all protected Section 224 attachers.

Respectfully submitted,

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March 7, 2008

EXHIBIT 1

Report of Patricia D. Kravtin

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

In the Matter of

Implementation of Section 224 of the Act;
Amendment of the Commission's Rules and
Policies Governing Pole Attachments

WC Docket No. 07-245

RM 11293

RM 11303

REPORT OF

PATRICIA D. KRAVTIN

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INTRODUCTION

Qualifications

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. I have also provided expert testimony and reports in proceedings before this Commission, the FCC's Chief Administrative Law Judge, and before international agencies including the Canadian Radio-television and Telecommunications Commission, the Ontario Energy Board, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation in federal district court, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience is provided in Attachment 1 to this Report.

3. Over the past decade, 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 (ILECs). 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, and have testified

extensively on, is access to poles, ducts, conduits, and rights-of-way. Most recently, in 2006, I submitted testimony and was subject to live cross-examination before the Commission's Chief Administrative Law Judge, on issues pertaining to utility compensation for pole attachments in *In the Matter of Florida Cable Telecommunications Association, Inc., et al. v. Gulf Power Company*, EB Docket No. 04-381, FCC 07D-01 (Initial Decision, rel. January 31, 2007). Previously, I submitted declarations on pole attachment, conduit and rights-of-way issues before the Commission in a pole attachment rulemaking proceeding, CS Docket No. 97-98 on behalf of the National Cable Television Association, et al., and in a pole attachment complaint proceeding *Cavalier Telephone v. Dominion Virginia Power* (Case No. EB-02-MD-005). I have also testified on matters relating to the costing and pricing of utility and incumbent local exchange carriers' pole attachments in proceedings before the New Jersey Board of Public Utilities (Docket EO0511005), the Ontario Energy Board (RP-2003-024), the Public Service Commission of the District of Columbia (Formal Case No. 1006), the New York Public Service Commission (Cases No. 02-M-1636 and No. 98-C-1357), the Georgia Public Service Commission (Docket 7061-U) and the South Carolina Public Service Commission (Docket No. 97-374-C).

Purpose and Summary of Report

4. The purpose of this Report is to respond to matters raised in the Commission's Notice of Proposed Rulemaking (NPRM), released November 20, 2007, and published February 6, 2008, concerning the rules and regulations governing pole attachments as they pertain to the pole attachment rates utilities are permitted to charge cable operators,

telecommunications carriers, and other entities providing broadband services, as well as certain attachment practices. This Report addresses and explains the following points:

- There is a strong, enduring economic and public policy rationale for continued adherence to the existing cable rate formula for cable operators as opposed to the tentatively proposed higher telecom rate formula (or some rate in between);
- Despite dynamic changes in market, regulatory, and technological conditions over the past decade, the underlying structural economic conditions of supply and demand for pole attachments have remained relatively unchanged, in that utilities continue to possess considerable monopoly power, and cable, CLECs, and other third party licensees continue to have little practical choice but to attach their facilities to utility poles;
- Shared occupancy on utility poles produces an economic “win-win” situation for both the cable attacher and the utility, with key benefits to consumers and society overall when attachment rates are kept reasonably close to economically-efficient marginal costs;
- Absent a competitive market for poles, there is no process to drive down the costs of poles to levels approximating marginal cost, which is essentially the cost of make-ready, i.e., the cost of rearranging and making available space on an owner’s pole;

- 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 based on a calculation that includes an allocation of ongoing costs based on the cable company's use of the pole plus a return on capital) most closely approximates a competitive market rate;
- The space factor incorporated in the cable rate formula allocates the costs of the *entire* pole – including unusable space; it is a misconception repeated in the NPRM that the cable formula fails to allocate costs associated with the unusable portion of the pole – the formula explicitly does so using a well-established, relative use based methodology as the Commission itself has previously held;
- The cost allocation methodology embodied in the cable rate formula, which assigns indirect costs in proportion to direct costs based on the attachers' occupancy on the pole, offers significant advantages vis-à-vis the telecom formula approach including: greater consistency with fundamental economic principles of cost causation and the Commission's comparable cost allocation rules; administrative simplicity; technological neutrality; and it more closely mimics a competitive market outcome;

- The observed disparity of the rates yielded by the cable and telecom formulas is not because of any deficiency in the cable rate formula; rather, it is largely based on the failure of facilities-based competition to have emerged at either the level and/or using the technology anticipated in 1996 at the time of the Act;
- Closing the disparity between the two rates by increasing the cable rate up to a level closer to the telecom rate would further compound these past failures and move precisely in the opposite direction from policies that would promote competition and the efficient deployment of broadband and VoIP services;
- Based on economic principles defining subsidy-free rates, the Commission’s comparable cost allocation rules, and the legal standards for just compensation – *all of which the cable rate satisfies* – the cable rate is not a “subsidized rate;” neither utilities nor their electric ratepayers are worse off, and in fact, with make-ready and pole rental under the cable formula, utilities are better off following an attachment by a third-party;
- From an economics perspective, the correct way to achieve parity in formula rates and avoid any negative impacts on competition and the efficient deployment of broadband and VoIP services is to charge all similarly-situated third-party attachers the lower cable rate;

- An increase in cable broadband and VoIP pole rents will negatively impact residential price competition for voice and other advanced services offered in competitive markets; conversely, there is no evidence that increased pole revenue will achieve the stated policy objective or result in any meaningful reduction of the rates utilities charge for residential electric services provided on a monopoly basis;
- Because of the dynamic nature of pole capacity, there is no necessary correlation between the number of users on the pole and the state of “full capacity” or “lost opportunity” on that pole, and it would be wrong to conclude that the telecom rate, because it allocates unusable space on the basis of the number of attaching entities, is more economically justified than the cable rate;
- To accept the utility position that its inability to extract additional rent over and above a competitive rate from captive attachers represents a real “cost” to which it is entitled would enable the utility to further exploit its monopoly ownership of the pole network at the expense of broadband competition;
- Differentiating factors among attachers, including the amount of space occupied, and the precise manner in which charges and other terms and conditions related to that occupancy are applied, need to be taken into account in order to draw reasoned conclusions about the impact on competition and the deployment of broadband services associated with adoption of a unified rate;

- Because of the various differentiating factors among attachers, it is wrong to assume, as the NPRM suggests, that moving toward a unified pole rate, in and of itself, will result in a level competitive playing field among broadband providers;
- One factor in particular to be accounted for is the substantial payment of make-ready charges made to the utility as additional compensation by cable operators, CLECs, and other third parties, but not typically ILECs pursuant to joint use agreements;
- When make-ready payments, in combination with other differentiating factors regarding the use of poles are taken into account, the divergence between the cable rate and the pole adjustment rate that utilities receive from ILECs becomes less significant, if present at all;
- Establishment of a unified rate at a level higher than the existing cable rate – which in combination with make-ready payments already compensate utilities at a level much greater than marginal costs, and has been found to be just compensation – will introduce even greater regulatory and market distortions that stand to benefit utility owners at the expense of a broad base of the consuming public;

- Given the utilities’ continued leverage over poles, it would be incorrect to view transactions or even formal executed agreements between third-party attachers and utilities, as “free market” benchmarks over which the Commission’s regulatory authority need not apply; and
- Maintaining the option of regulatory intervention to settle contract disputes serves to facilitate true negotiation among the parties and to promote lower pole rates that will benefit consumers of broadband services, including the utility’s own ratepayers.

NOTWITHSTANDING DRAMATIC CHANGES IN THE POST-ACT PERIOD, UTILITY POLES CONTINUE TO BE ESSENTIAL BOTTLENECK FACILITIES UNDER THE UTILITIES’ OWNERSHIP AND CONTROL, TO WHICH CABLE, CLECS, AND OTHER THIRD PARTIES MUST ATTACH.

5. In the NPRM, the Commission seeks to take a fresh look at the just and reasonableness of the maximum rates utilities are permitted under Commission rules to charge cable operators, telecommunications carriers, and other third parties seeking to attach to the utilities’ network of poles. Citing “nearly a decade of experience with the pole attachment rules that the Commission adopted to implement the 1996 Act,” the Commission is reexamining regulated pole rates in the context of a number of articulated criteria including equity, competitive neutrality, consistency with the deregulatory and pro-competitive goals of the Act, and the deployment of advanced telecommunications capability.¹

¹ NPRM at ¶¶ 2, 26-27.

6. While dynamic changes in market, regulatory, and technological conditions have occurred in the telecommunications industry over the past decade, and are continuing to occur, the underlying structural economic conditions of supply and demand for pole attachments have remained relatively unchanged. Utilities continue to possess considerable monopoly power relative to pole and conduit attachments, and cable operators, competitive local exchange carriers (CLECs), and other third parties continue to have little practical choice but to attach to the utilities' outside plant.

Poles are essential “bottleneck monopoly” facilities.

7. The necessary shared use by cable operators, CLECs, and other third parties of established pole networks owned and controlled by utilities is associated with what is described in the economics and public policy literature as access to or use of “essential” or “bottleneck monopoly” facilities. Where a utility has control over an essential or bottleneck facility – as is demonstratively the case with poles – if unchecked by regulation, the utility has both the ability and the incentive to charge cable operators and other third-party attachers excessive attachment rates.

8. That poles and conduits are “essential facilities” capable of serving as bottlenecks to cable operators and others requiring access to those facilities in order to compete has long been recognized by the Commission, 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 the cable rate formula.² Fundamentally, it was the lack of

² See *NCTA v. Gulf Power*, 534 U.S. 327, 330 (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

viable market-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 non-discriminatory access to these essential pole and conduit facilities for both cable operators and telecommunications carriers.³ As the legislative history and language in the Act suggests,⁴ in expanding the Commission’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.

Cable, CLECs, and other third-party attachers have not had similar opportunities to construct their own pole networks.

9. Historically, the utilities’ 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. Cable operators, like the CLECs that have come after them, have not had similar opportunities to construct their own pole network structures or to join together to share a common

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.” This point was also explicitly recognized by the Eleventh Circuit 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.” *Alabama Power v. FCC*, 311 F.3d 1357, 1362 (11th Cir. 2002) (“*Alabama Power*” or “*APCo*”). From the legislative history in 1978, citing a Staff Report by the Commission’s Office of Plans and Policy, “public utilities by virtue of their size and exclusive control over access to pole lines, are unquestionably in a position to extract monopoly rents from cable TV systems in the form of unreasonably high pole attachment rates.” S. REP. NO. 95-580, at 13 (1977).

³ See 47 U.S.C. § 224 (1997).

⁴ See 47 U.S.C. § 224(f) (Supp. II 1996).

facility similar to incumbent telephone and electric utilities in the past. In many instances, cable operators and CLECs have had, and continue in the post-Act period to have, little if any realistic choice but to rent existing space on utility poles and in conduit. As recognized by Congress at the time of enactment of its landmark pole attachment legislation in 1978, where cable operators (and CLECs subsequent to 1996 Act) occupy space on utility poles or in conduit, they typically have no practical or cost-effective alternative to the use of those facilities.⁵

10. Zoning, environmental, municipal ordinance, financial, and other constraints continue to make it impractical if not impossible for third parties to construct new pole networks or conduit systems on a scale or scope anything close to that owned and controlled by the incumbent utilities.⁶ In any given area, there is typically one provider of poles with surplus space, as the cost of constructing a stand-alone pole network throughout the entire service area would be prohibitively expensive. There is no other regulated or unregulated entity that leases pole or conduit in sufficient quantity and/or ubiquity so as to provide the cable operator or CLEC with a viable market-based alternative to the leasing of pole or conduit space from the existing utility. Local governmental authorities resist authorizing unnecessary duplication of outside plant and/or disruptive street cuts. Even if local permits would be granted, the social, aesthetic, and other costs of constructing duplicative

⁵ “Owing to a variety of factors, including environmental or zoning restrictions and the costs of creating 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.” S. Rep. No. 95-580, at 13 (1977).

⁶ See, e.g., *Alabama Cable Television Ass’n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001) (“ACTA”) at ¶ 57.

outside plant have long served to effectively require cable operators and CLECs to follow the existing paths of incumbent utilities' networks.

11. As much today as it was thirty years ago when Congress first enacted pole attachment legislation, attachers do not, as a practical reality, have the option of duplicating the pole networks constructed by the utilities and paid for by the utilities' monopoly ratepayers for which those networks were built and maintained. Consistent with the Commission's own findings, while an attacher may have the option of installing its own underground conduit in certain limited cases, that is generally at an expense much greater than the utility's actual costs of accommodating the attacher on its existing pole network.⁷

Shared occupancy on poles produces an economic “win-win” for utilities and cable attacher, with key benefits to consumers and society overall.

12. As clearly articulated by Congress in the earlier legislative history in connection with the 1978 Pole Attachments Act (and reiterated in connection with the 1996 Telecommunications Act⁸), sharing arrangements for pole users are efficient, practical, and necessary for the public good.⁹ Cable operators are occupying otherwise available but unused space on existing poles.¹⁰

⁷ “[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.” *ACTA*, 16 FCC Rcd 12209 at ¶ 69.

⁸ 47 U.S.C. § 224(f) (Supp. II 1996).

⁹ “Sharing arrangements minimize unnecessary and costly duplication of plant for all pole users, utilities as well as cable companies.” S. REP. NO. 95-580, at 16 (1977).

13. In a 2007 decision, the Commission’s Chief Administrative Law Judge described the situation as one in which “the cable operator occupies space that would otherwise be vacant” because “space is available for all those who request space.”¹¹ For use of this otherwise vacant space on utility poles, cable operators are paying in excess of the marginal costs associated with their occupancy, including a “fair return on the utility’s investment.”¹² For reasons described in more detail below, and as recognized by the Commission’s Chief Administrative Law Judge, under these conditions, utility pole owners are better off financially after a cable attachment than before.¹³

14. In the case of a cable attachment, not only does the utility receive the regulated rate and any associated make-ready charges - the combination of which far exceeds the marginal cost of attachment,¹⁴ but, as discussed further below, the utility also receives the added financial benefit associated with improvements to its poles created (and fully paid for) through the make-ready process. Consistent with the underlying economics, the Commission and the courts have consistently found that the regulated cable rate provides utility pole owners with full and just compensation for cable television system pole rentals.¹⁵ In this context, both the cable operator attaching to the poles as well as the

¹⁰ “CATV offers an income-producing use of an otherwise unproductive and often surplus portion of plant.” *Id.* at 13.

¹¹ *Florida Cable Telecommunications Association v. Gulf Power Company*, EB Docket No. 04-381, FCC 07D-01 (rel. Jan. 31, 2007) (“*FCTA*”), at 10.

¹² *Id.*

¹³ “Significantly, when an attacher pays the cost of getting on a pole, Gulf Power stands to earn more.” *Id.* at 7.

¹⁴ *Alabama Power*, 311 F.3d at 1363, 1369.

¹⁵ *See, e.g., ACTA*, 16 FCC Rcd 12209 at ¶ 52.

utility owner of the poles benefit substantially from the shared arrangement, producing an economic “win-win” situation for the private parties involved in the transaction.

15. In addition to the respective benefits to the parties directly involved (i.e., the private good aspect of the transaction), there are important public benefits that accrue to the society at large from shared pole arrangements at the regulated rate. From a “social welfare” economics perspective, there is economic value to society associated with the efficient use of resources, i.e., the use of resources resulting in the lowest overall cost to society and the best possible utilization of those resources vis-à-vis alternative uses.

16. Utility distribution networks including poles are a classic case of what economists refer to as a “natural monopoly,” meaning “economies of scale are so persistent that a single firm can serve the market at a lower unit cost than two or more firms.”¹⁶ As a consequence, the shared use of a utility’s existing distribution network results in a lower overall cost to the economy as a whole in terms of the consumption of societal resources. Resources that would otherwise be used (unnecessarily and more expensively) to duplicate existing pole networks are instead freed up and can be put to more productive uses – in particular, ones that can provide concrete benefits to consumers such as the provisioning of new and improved services and at lower prices to consumers.

17. The closer the prices charged for the shared use of the natural monopoly pole facilities are to the owner’s marginal costs of attachment, the more efficient the outcome

¹⁶ F.M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally, Chicago, 1980, at 482.

in terms of maximizing the productive use of societal resources and the resultant benefits to consumers, including lower prices. The more the monopoly owner of poles is allowed to deviate from marginal cost pricing, the greater the “deadweight” efficiency loss to society – a loss of value to consumers that is over and above the increase in monopoly profits directly associated with prices in excess of marginal cost.¹⁷

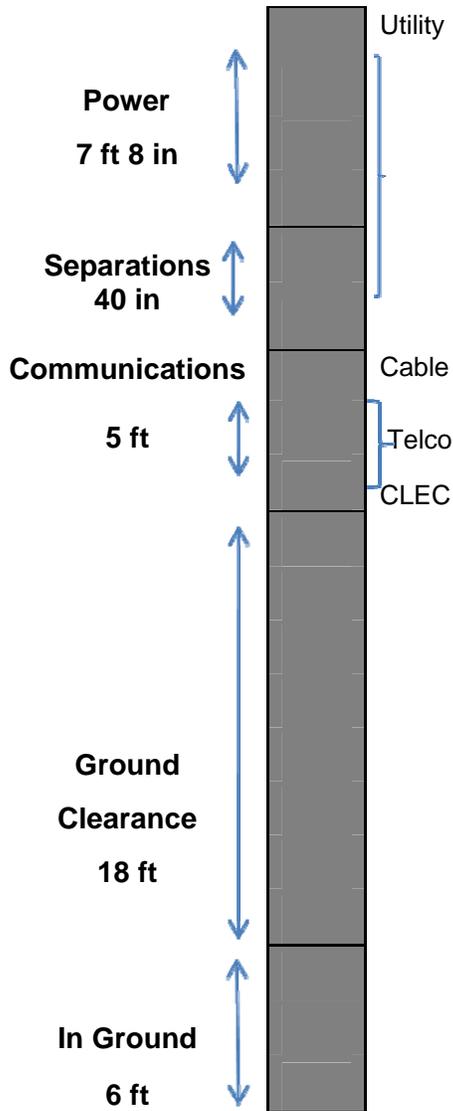
18. The possibility of deadweight losses to consumers and society in general from allowing utilities to charge too high a price for pole attachments relative to the marginal costs of the attachments is all the more troubling given the relative ease with which cable and other third party attachers have historically been accommodated through a utility’s normal and customary make-ready arrangements.

19. Figure 1 below illustrates the physical configuration of a typical shared utility pole on which power, telephone, cable, and CLEC attachers have installed facilities. In reality, there can be all manners of other devices also present on the pole including streetlights, private floodlights, traffic signals, fire and police call boxes and alarm signal wires, and municipal communications systems.

¹⁷ See, e.g., Paul A. Samuelson, *Economics*, Tenth Edition, McGraw-Hill Book Company, 1976 at 518-519.

Figure 1

Illustrative Space Allocation on Typical 40' Shared Utility Pole



20. As illustrated in Figure 1, and as well-recognized by the Commission,¹⁸ the typical pole has six feet of its height underground, and another eighteen feet reserved for clearance above ground as required to clear possible interference and obstacles along the

¹⁸ See, e.g., *Second Report and Order, In the Matter of Adoption of Rules for the Regulation of Cable Television Pole Attachments*, FCC Docket No. 78-144, 72 FCC 2d 59, 1979 FCC LEXIS 374, at *68; n.21.

path of the pole network. Space for communications attachments, as historically specified under joint use agreements between power and telephone utilities, is available immediately above the required ground clearance. Above the communications space is a 40 inch separation or neutral space pursuant to requirements of the National Electric Safety Code (NESC). The Commission has noted the common practice of utilities to “mount street light support brackets, step-down distribution transformers, and grounded, shielded power conductors” within this space.¹⁹ As described by the Commission, “by industry practice, power lines generally are located on the upper-most portion of utility poles, telephone cables at the minimum ground clearance of 18 feet, and CATV facilities about 1 foot above telephone cables.”²⁰ In the post-Act period, one or more competitive telecommunications providers are in some areas also attached within the shared communications space.

21. To summarize, it continues to be efficient, practical, and necessary for cable and other third party attachers to occupy space on utilities’ poles. Moreover, such arrangements are economically beneficial to *all* parties involved, including the utility, as well as to society at large. Notwithstanding the economic “win-win” of cable and other third party attachers’ shared occupancy of utility poles, utilities continue to have the ability and incentive to exploit their monopoly ownership of the poles and to extract additional rent from attachers well in excess of the economically efficient or marginal costs of pole attachment.

¹⁹ *Id.* at *71.

²⁰ *Id.* at *69.

A hypothetical stand-alone cost standard for shared utility poles is flawed.

22. One way utilities have long sought to exploit their monopoly power over poles is by seeking to base pole attachment charges on the utilities' own higher, hypothetical pole replacement cost or on the hypothetical avoided cost to the attacher of stand-alone pole construction or underground installation.²¹ While the Commission has repeatedly rejected such approaches in favor of the embedded cost methodology embodied in Section 224 and the cable rate formula,²² in the NPRM the Commission seeks comments on adopting a system similar to that used in Maine, "which pro-rates costs based on estimates of what each entity would pay if it had to install its own poles."²³ Because the Maine approach fundamentally is based on the concept of stand-alone costs, it suffers from the same flaws in economic reasoning as the hypothetical replacement or avoided cost approaches proposed by utilities over the years.

23. The inherent shortcomings of applying a stand –alone cost standard to poles are many, including:

- Pole systems cannot practically be reproduced;
- There is no free-functioning competitive market for poles;

²¹ See *ACTA*, 16 FCC Rcd. 12209 at ¶ 57; see also Gulf Power Company's Response to Complaint, File No. PA 00-004 (filed Aug. 9, 2000) at 9-13, 38-52.

²² See, e.g., *Amendment of Rules and Policies Governing Pole Attachments, Report and Order*, CS Docket No. 97-98, FCC 00-116 (rel. April 3, 2000), at ¶¶ 8-10, see also *ACTA*, 16 FCC Rcd. 12209 at ¶¶ 53, 64-70.

- Pricing at levels greater than avoidable costs unjustifiably shifts resources from the provisioning of service into monopoly profits for the pole owner;
- There is no need for economic cues to guide optimal pole investment;
- Individual poles have long-lives and are not subject to obsolescence;
- Make-ready charges cover the cost of replacement for an individual pole, so that building in a higher stand-alone cost in the rental formula duplicates cost recovery for the utility, and finally;
- Utilities' receive full cost recovery for the relatively few poles that are replaced.
- Absent a competitive market for poles, there is no process to drive down the costs of poles to levels approximating marginal costs.

24. As acknowledged by the Commission, from a practical perspective, pole systems cannot be reproduced due to zoning, environmental, financial, and other constraints. Cable operators and other third party attachers have little practical choice but to share existing utility outside plant networks. Accordingly, it makes little economic sense to use as “cost” a proxy for an attacher’s hypothetical stand-alone network since such a network practically cannot get built.

²³ NPRM at ¶32.

25. Without practical and feasible alternatives to the use of the utility's network, there is no "free" or competitively-functioning market for poles. A competitive market is defined by the existence of numerous buyers and sellers, no one of which is large enough to influence the price by varying the quantity of output it sells.²⁴ Under such conditions of effective competition, market forces can be relied on to bring rates down to levels approximating marginal costs. In the case of pole attachments, because there is no competitive market for poles, there is no market process in action to drive down the costs of pole construction or any potential alternatives such as going underground.

26. Even if it was possible for an attacher to install its own poles or conduit as an alternative to sharing the utility's network, that cost is typically much more expensive than the fully compensated cost of attaching to the utility's poles. Thus, in the absence of free market conditions, 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, would permit the utility to exploit its monopoly ownership of the poles and to extract additional rent from the attacher well in excess of the efficient or actual economic cost of the pole attachment.

²⁴ See F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Third Edition (Boston: 1990), at 16.

27. The shared use of poles is an economically efficient allocation of resources vis-à-vis the alternative of attachers building their own duplicative networks. As well established in the economic literature, economic efficiency is maximized when pricing more closely approximates marginal costs. Conversely, pricing at levels greater than avoidable or economic costs has the effect of shifting resources away from an economically efficient outcome. Resources that would otherwise be used toward the provisioning of service by those attaching to utility poles would instead be diverted toward higher pole rentals and the concomitantly higher monopoly profits for the pole owner. This shift in resources reduces overall societal welfare by producing ultimately higher prices and the provision of less services for consumers from which they would derive benefit.

28. Related to the absence of a free-functioning competitive market for poles and the associated forces that produce an economically efficient allocation of resources, there is no purpose to be served by economic “cues” from reproduction or stand-alone cost-based prices to guide optimal pole investment. Poles are extremely long-lived assets with little ongoing 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 have been recovered through rates for the utility’s core regulated electric service for which the network was built and maintained. Utilities have not been deterred from investing in the appropriate amount of pole plant of the height, type and class they deem appropriate for their own operational needs, and cable operators and other third party attachers have not over-consumed pole space as they would be required to pay for any over-consumption of pole space in the form of additional make-ready costs.

29. Furthermore, the use of a hypothetical replacement or stand-alone cost methodology for pole rental rates does not make economic sense at the individual pole level either. For the majority of poles that are not being replaced in any given year and enjoy long economic lives, replacement or stand alone 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 in order to serve their core electric utility service, costs are appropriately recoverable through regulated rates for those customers. For the poles that would not be replaced but for a third-party attacher, the costs are recoverable through make-ready charges imposed on the attacher, set unilaterally by the utility. If the third party attacher does not agree to pay the make-ready as unilaterally determined by the utility, the pole is not replaced and the attachment is not made. In effect, make-ready charges are replacement costs or stand alone costs applied at the individual pole level. Thus, there is no efficiency gain in building in the higher replacement or stand alone cost in the rental formula, as it would only result in double cost recovery and an extraction of monopoly rents.

30. In addition to the flaws in economic reasoning that utilities have used to support higher pole rentals, the use of a hypothetical replacement or stand alone cost methodology is inconsistent with the principles underlying the Eleventh Circuit's *Alabama Power Company* ("APCo") decision. Under the terms of *APCo*, the only time when a utility may claim additional compensation in excess of marginal is where a utility can demonstrate the dual conditions of full capacity and actual lost opportunity to rent or

use space on a given pole. For the reasons identified above, replacement or stand-alone costs have no relevant economic connection to the fundamental conditions of supply present on a given individual pole. This is a point with which the Commission's Chief Administrative Law Judge has agreed.²⁵

Cable's continued access to utility poles at the existing regulated rate is critical to its ability to deploy new broadband services.

31. Regulation of pole attachments was established in the 1978 Pole Attachments Act, and reaffirmed in the 1996 Act. As a result of this historic legislation, and the rules and regulations adopted by the Commission in connection with implementation of the 1978 and 1996 Acts and by state regulatory agencies that claim jurisdiction (most of whom model their rules after the Commission's cable formula), the utilities' ability to exploit their monopoly power over poles and charge excessive pole rents has been effectively constrained. This in turn has helped to produce a dynamic telecommunications industry and to provide substantial cost savings and new services to consumers.

32. Because the underlying economic conditions have not changed in the ensuing years, the utilities maintain their ability and incentive to charge excessive pole rents, and any lessening of those regulatory constraints, such as contemplated in the NPRM with the tentative proposal to increase the cable formula rate to levels even further in excess of

²⁵ *FCTA* at 21, n.10 (“The evidence also fails to prove that Cable Formula rents are insufficient to put Gulf Power in as good a position as it was before any taking of its pole space The Commission has already concluded that Cable Formula rates plus payment of make-ready expenses, provides compensation that exceeds just compensation. . . . Also, the Commission has twice rejected replacement cost methodology Therefore, if it were necessary to assess damages, replacement cost methodology would not be used.”) (internal citations omitted).

marginal cost, runs counter to the fundamental goals of the 1978 and 1996 Acts to promote competition and the deployment of new and innovative services.

33. The utilities' incentive to charge excessive pole attachment rates, has if anything, increased in the post-Act period with the growing prospect of competition between the utilities and those requiring access to their poles. The entry, or even the prospect of entry, of electric distributors (or their affiliates) into adjacent telecommunications and broadband markets in recent years, provides increased opportunities for cross-subsidization, which only heightens the utilities' existing incentive to charge rates well in excess of economically-efficient marginal costs.²⁶

34. The utilities' ability and incentive to exploit their monopoly ownership of poles, and in the particular context of the dynamic changes in the provision of telecommunications and advanced services to emerge in the post-Act period, was explicitly acknowledged by the Eleventh Circuit Court as an important backdrop to its *APCo* decision.²⁷ The

²⁶ For a full discussion of the ability of utilities to engage in implicit and explicit forms of cross-subsidization between regulated and non-regulated affiliates, see the National Regulatory Research Institute, Briefing Paper, "Repeal of the Public Utility Holding Company Act of 1935: Implications and Options for State Commissions," August 2006, at 7-14. "In spite of all intervening statutory and regulatory changes since PUHCA 1935, three major problem areas remain when dealing with holding companies today: transfer pricing between affiliates; the problems of cost allocation and cross-subsidization; and corporate financial abuse that is sometimes subtle and hard to pin down." *Id.* at 7.

²⁷ "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." *Alabama Power*, 311 F.3d at 1361-63.

utilities' continuing ability and incentive to leverage their monopoly over poles in the post-Act period is further evident in the number and intensity of contract disputes over rates and in formal regulatory and/or legal proceedings involving utilities and third-party communications attachers in recent years.

35. The NPRM expresses an overriding concern with the deployment of advanced broadband services in the post-Act period. However, the NRPM does not explicitly address the continuing underlying economic reality of poles as essential facilities for cable operators as it pertains to the Commission's tentative proposal to allow utilities to increase the pole attachment rates they are permitted to charge cable operators. Existing Commission's rules and regulations for cable pole attachments were specifically designed to address the utilities' historical dominance of essential pole and conduit facilities to which cable must necessarily attach and to constrain the utility's ability to exploit that dominance by charging cable operators rates far in excess of the economically efficient marginal costs of attachment. In this context, any change to the Commission's rules and regulation that *increase* the rates utilities are permitted to charge cable operators for pole attachment will only serve to hinder the ability of cable companies to deploy new plant and compete in emerging broadband markets, and as such, runs directly counter to the underlying rationale for pole regulation and the overarching goals of the Act to promote the deployment of new and advanced services at lower prices.

36. Increasing pole attachment rates for cable operators raises the cost of an important and necessary input of production. These increases will ultimately result in higher prices to consumers, reduced build-out of plant, especially in low density areas, and/or the

slower roll-out of new advanced products and services including Voice Over Internet Protocol (VoIP), all of which work to the ultimate detriment of a broad base of consumers and to the achievement of the Commission's goal to promote broadband and new service deployment. These negative consequences of an increase in the cable rate were explicitly recognized by, and provided an important basis for, the Commission's 1998 decision to apply the cable rate to cable operators offering commingled Internet and traditional cable services.²⁸

37. By contrast, the only assured beneficiaries of an increase in the cable rate are the utilities' owners. While the NPRM suggests there might be an offsetting benefit to utility ratepayers based on the assertion that cable rates are subsidized by utility ratepayers, there is no validity to either of these unproven assumptions.

**THE CABLE RATE, IN COMBINATION WITH MAKE-READY CHARGES,
RECOVERS MUCH MORE THAN THE MARGINAL COST OF POLE
ATTACHMENT, INCLUDING COSTS OF UNUSABLE SPACE, AND
ACCORDING TO WELL-ESTABLISHED ECONOMIC PRINCIPLES OF COST
CAUSATION, IS *NOT* A SUBSIDIZED RATE.**

38. In the NPRM, the Commission seeks comment "on the extent to which the current cable rate formula, whose space factor does not include unusable space, results in a subsidized rate, and if so, whether cable operators should continue to receive such

²⁸ "In specifying this rate [Section 224(d) (3) cable rate], we intend to encourage cable operators to make Internet services available to their customers. We believe that specifying a higher rate might deter an operator from providing non-traditional services. Such a result would not serve the public interest. Rather, we believe that specifying the Section 224(d) (3) rate will encourage greater competition in the provision of Internet service and greater benefits to consumers." *Report and Order, In the Matter of Implementation of Section 703(e) of the Telecommunications Act of 1996, Amendment of the Commission's Rules and Policies Governing Pole Attachments*, CS Docket No. 97-151 (rel. February 6, 1998) FCC 98-20, ¶ 32.

subsidized pole attachment rate at the expense of electric customers,” and further “whether cable operators should continue to qualify for the cable rate where they offer multiple services in addition to cable services.”²⁹ The Commission’s line of inquiry in the NPRM embodies a number of serious misconceptions involving the cost allocation rationale underlying the cable rate formula, the nature of the space factor used in the cable rate formula, the economic definition of “subsidy,” and the possible impact on electric customers. These misconceptions are consistent with arguments – none of which are valid – repeatedly put forward by the utilities in their efforts to extract excessive rates from cable operators. This Commission has uniformly rejected these arguments in the past based on solid reasoning that remains just as valid today.

The cable rate formula allows recovery of a cost-causative portion of the utilities’ operating expenses and capital costs attributable to the entire pole, plus a return.

39. Under the economic principle of cost causation, costs are properly attributed to the entity causally responsible, i.e., the entity but for whose existence (or action) a cost would not have been incurred. Consistent with this principle, Section 224(d), upon which the cable pole formula is based, links the pole attachment rental for cable operators to “additional” or marginal costs associated with or “caused by” an attachment, 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

²⁹ NPRM at ¶ 19.

by the pole attachment by the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole.”

40. The Commission’s cable rate formula is designed to allow recovery of a cost-causative portion (i.e., relating to the attacher’s actual occupancy of a pole) of the utilities’ booked operating expenses and actual capital costs attributable to the entire pole, plus a return on those costs.³⁰ In doing so, the cable 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 marginal costs, as recognized by the Court in the *APCo* decision.³¹

The space factor in the cable formula allocates the costs of the entire pole, including unusable space, in a cost-causative manner based on direct use.

41. Under the Commission’s formula, cable companies are charged in proportion to their direct use or occupancy requirements (including its “attendant clearances”), which is well-established as being one foot of space on the pole.³² Electric utilities oppose 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

³⁰ The Cable rate formula is as follows: [Maximum Rate = (Space Occupied by Attachment ÷ Total Usable Space) × Net Cost of Bare Pole × Carrying Charge Rate]. 47 C.F.R. § 1.1409.

³¹ 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.” *Alabama Power*, 311 F.3d at 1363, 1369.

³² “The *1977 Senate Report* evidenced Congress’ intent that cable television providers be responsible for 12 inches of usable space on a pole, including actual space on a pole plus clearance space. In 1979, the Commission established the rebuttable presumption that a cable television attachment occupies one foot. The Commission subsequently refined its methodology for determining the amount of usable space and made the one foot presumption permanent.” *Report and Order*, CS 97-151, FCC 98-20, ¶ 81. *See also 1977 Senate Report* at 20.

the pole to cable. However, the Commission's allocation of one foot of space is commensurate with cable's small use requirements,³³ and the fundamental economic principle of cost causation. 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 generally need less space than telecommunications attachments.³⁴ Moreover, the minimal requirements for cable attachments are not impacted by the cable operators' deployment of broadband services, so that cable's provision of broadband services does not diminish the underlying cost causative justification for the usage-based allocator embodied in the formula.

42. It is entirely consistent with economic principles of cost causation and legal principles of just compensation as articulated in *APCo* to allocate little cost to the user if there truly is no opportunity cost to the pole owner. All that is required from an economics standpoint is that the recovery be economically reasonable and appropriate in accordance with fundamental economic principles of cost causation – which by design, remove the possibility of cross-subsidies.

43. The space factor incorporated in the cable rate formula, which is used to allocate the costs of the entire pole in direct proportion to the attacher's occupancy on (i.e., use of) the pole is totally consistent with this fundamental economic concept. Indeed, even with

³³ “We understand CATV cables are uniformly assigned an effective occupancy space of 1 foot, without regard to their actual $\frac{3}{4}$ or $\frac{1}{2}$ inch diameter.” 72 F.C.C. 2d 59, n. 26.

³⁴ For example, according to information provided in the Commission's Gulf Power proceeding, on a standard 40-foot joint use pole, that utility allocated 8.5 feet of space to its own use, and 3 feet each to telecommunications providers, BellSouth and Sprint, as opposed to the 1 foot of usable space allocated to

a relatively small portion (7.41%) of the overall cost of the pole attributed to cable under the cable rate formula calculation, this reflects the percentage of the pole used, and cable companies are paying well in excess of the marginal costs of their attachments, especially when make-ready charges, which can be thought of as the up-front payment of the marginal costs of hosting an additional attachment, are taken into account.³⁵

44. The pre-payment of make-ready charges by cable operators is an important distinction between the manner in which utilities charge cable operators for use of their poles as third-party renters and the manner in which they charge ILECs as joint owners. Make-ready charges afford utilities not only the full recovery of any out-of-pocket costs they incur in connection with a cable attachment, but also the full financial benefit of any and all improvements to the pole (including the outright replacement of an existing pole with a new taller pole) made during the make-ready process. The cable attacher still pays rent for the improved pole, but the utility as owner receives the sole benefit of those improvements in terms of the increased asset value of its plant, additional realizable rental revenues, and/or the deferral of the utility's own capital expenditures. A meaningful analysis of parity or competitive neutrality must take these considerations into account.

cable. See Ex. 85, Deposition of Rex Brooks, September 16, 2005, at 29, and Ex. 88, Deposition of Terry Davis, November 18, 2005, at 159 in *Florida Cable Television Ass'n*, EB No. 04-381.

³⁵ Moreover, taking into account the totality of attachments on a given pole, even if all attachers were assessed at the lower cable rate, the utility 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 shown in Figure 1, the utility's own direct use is about 11 feet including the separations space which the Commission has described as "usable and used by the electric utilities" (CS Docket No. 97-98, FCC 00-116 at ¶ 22)), as compared to cable's 1 foot. Applying the same FCC space factor used to allocate costs to cable, the utility should be allocating to itself roughly 70% of the cost of a standard 40 foot joint-use pole.

It is a total misconception that the Commission’s cable formula fails to allocate costs associated with the unusable portion of the pole.

45. In the NPRM, the Commission expresses particular concern about the cable formula’s reliance on usable space as the sole means of allocating pole costs,³⁶ in contrast to the telecom formula whose space factor is derived using a calculation that includes both usable and unusable space as components among other factors, including the number of attaching entities and a fixed $\frac{2}{3}$ factor.³⁷

46. The Commission’s question in the NPRM of the general applicability of the cable rate reflects an inherent misunderstanding of the way the space factor is used in the cable rate formula in comparison to the telecom rate formula. The NPRM confuses the particular *choice of allocator* (i.e. percentage of usable space occupied by the attacher) used in the cable formula to attribute *total space* on the pole with the *actual costs that are being attributed* (i.e., total space on the pole including both usable and unusable space). Both the cable and telecom rate formulas allocate costs associated with the *entire* pole including *both* usable and unusable space, they just use different allocators to do so. The Commission appears to recognize this key point elsewhere in the NRPM when, citing to its *2001 Order on Reconsideration*.³⁸

³⁶ “We question TWTC’s assertion that the cable rate should apply to all pole attachments, particularly because, as discussed above, the cable rate does not include an allocation of the cost of unusable space.” NPRM at ¶ 22.

³⁷ The Telecom formula (in simplified form) is as follows: Maximum Rate = ((Space Occupied by Attachment + (2/3 x Unusable Space ÷ No. attaching entities)) ÷ Pole Height) × Net Cost of Bare Pole × Carrying Charge Rate. 47 C.F.R. § 1.1417-18.

³⁸ “The Commission adopted specific formulas implementing the cable rate and telecom rate, which differ *only in the manner* in which the costs associated with the unusable portion of the pole are allocated.” NPRM at ¶ 29 (emphasis added).

47. The Commission has similarly recognized this key concept in prior opinions and orders, with specific references to the legislative history in connection with the initial adoption of pole rate regulation.³⁹ The following passage from the legislative history contains perhaps the clearest articulation of the manner in which the cable formula allocates the “total costs of the entire pole.”

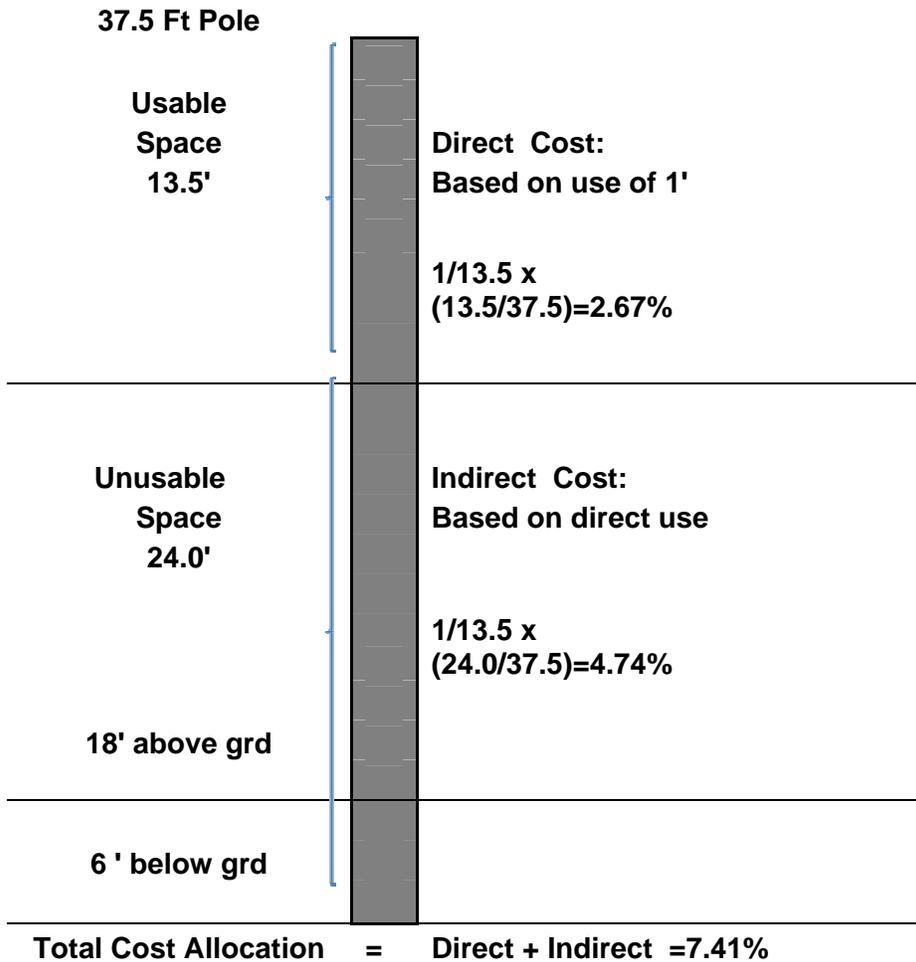
Cable’s share of the total capital costs and operating expenses for the entire 35-foot pole would be one-eleventh. Cable would pay its share of not just the costs of the 11 feet of usable space but of the total costs of the entire pole, including the unusable portion (below grade level, and between grade and minimum clearance levels). This allocation factor reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs of furnishing the service that has the greater amount of use.⁴⁰

48. It is not the case that the Commission’s cable formula fails to allocate the unusable portion of the pole, as suggested in parts of the NPRM, because an allocator is used to make the attribution of unusable space (indirect costs). That allocator is reasonably based on the percentage of usable space (direct costs) allocated to the attacher. A diagrammatic illustration of the relative use methodology embodied in the cable rate formula and its resulting allocation of the total costs of the pole (including both usable and unusable space) is presented in Figure 2 below.

³⁹ “The allocation formula provides that a cable system may bear a proportionate share of the *total pole costs* in exactly the same proportion that its attachment and attendant clearances consume usable space.” 72 FCC 2d 59, n.22, citing S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977) and Section 224 (d) (1) of the Act. See also *Cable Telecommunications Ass’n of Georgia v. BellSouth*, File No. PA 98-0004, DA-02-1733, July 19, 2002: “The Cable Formula allocates the cost of the *entire* pole by the percentage of usable space occupied by the attachment.” (emphasis added).

⁴⁰ S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977) at 20.

Figure 2
Allocation of Total Pole Costs under Cable Formula



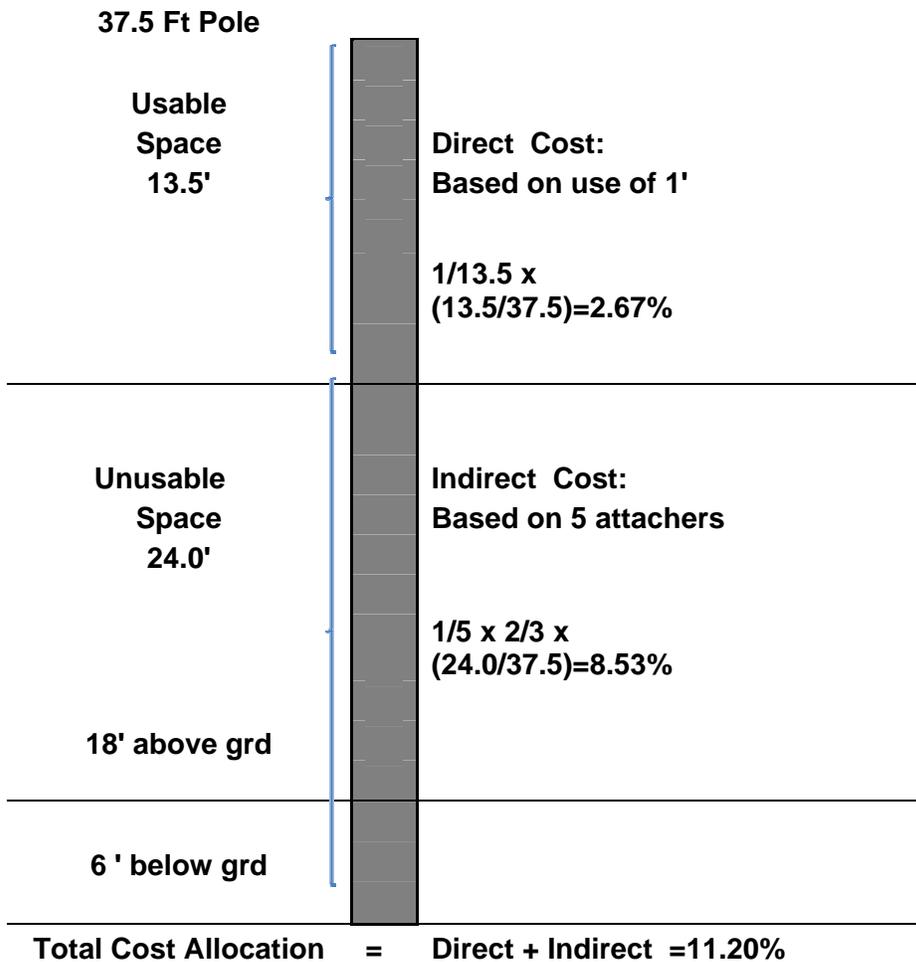
49. As shown in Figure 2, costs associated with both useable and unusable space on a 37.5' pole (an average figure presumed by the Commission for purposes of the cable rate formula) are allocated at the same proportional rate of $\frac{1}{13.5}$ or 7.41%. While Figure 2 breaks down the two components of the space allocation factor (useable and unusable) for purposes of illustration, because the same proportional allocation is applied to both

components which together sum to the total pole height, the two terms can be combined mathematically into one.

50. By contrast, the Telecom formula allocates useable and unusable space in two distinct ways. Direct costs relating to usable space are allocated in the same manner as the cable formula, i.e., based on the relative use or occupancy of the usable space. Indirect costs relating to the unusable space are allocated in a specified proportion calculated by taking two-thirds of an equal apportionment among attaching entities. A diagrammatic illustration of the methodology embodied in the telecom rate formula and its resulting allocation of the total costs of the pole is presented in Figure 3 on the following page.

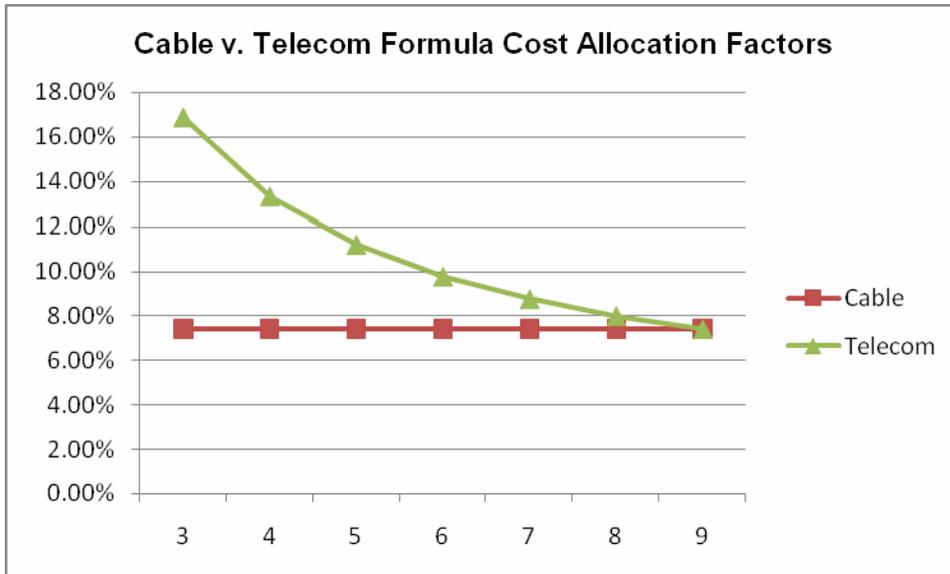
51. In the illustration of the telecom formula provided in Figure 3, the Commission's presumption of 5 attaching entities in urban areas was used in the calculation. This resulted in an allocation of 11.20% of the total costs of the pole, as compared with the 7.41% allocation under the pole formula. Because the cost allocation applicable to indirect costs under the telecom formula is inversely related to the number of attaching entities, the larger the number of attaching entities, the smaller the total cost allocation. As discussed further below, the number of attaching entities on a pole is an artificial element from a cost causation standpoint. The cost allocation under the cable formula is a fixed percentage based on relative use, so in terms of a comparison with the cable rate, the larger the number of attaching entities used in the telecom formula, the smaller the resulting rate differential between the two formula rates.

Figure 3
Allocation of Total Pole Costs under Telecom Formula



52. Indeed, as the number of attaching entities increases beyond seven, the rates produced by the two formulas actually converge as shown in Figure 4 on the following page (calculations are provided in Attachment 2 to this Report). This outcome is consistent with the Congressional expectation that there would be many more CLEC lines on the poles, and that costs, under the new regime, would be shared accordingly among a significantly increased number of entities.

Figure 4



Rate disparity between cable and telecom rates is not due to deficiencies in the former, but rather the failure of competition to emerge as anticipated.

53. In comparing the different cost allocation factors produced by the two formulas, there is an important point to be made concerning the likelihood of convergence between the two. When Congress adopted the language prescribing the new telecom formula in the mid-1990's, the technology for facilities-based competition for telecom involved a new wire attached to the pole by a new CLEC entity. In the period immediately following implementation of the passage of the 1996 Act, and in light of the proactive measures that were being contemplated by this Commission and state regulatory agencies nationwide to open up the market for facilities-based local exchange services, there was a reasonable

expectation to have assumed a greater number of attaching entities in any given service area than in fact materialized in the post-Act period.⁴¹

54. Had the widely-anticipated facilities-based new entry occurred, the differential between the cable and telecom rates could very well have converged such as illustrated in Figure 4 above. In fact, the entry conditions facing facilities-based CLECs turned out to be much more difficult, time-consuming, and costly, than widely anticipated immediately following passage of the Act. In addition, technology has since changed. With the emergence of Voice over Internet Protocol (VoIP) services, voice communication is sent in IP packets and carried through existing wires such that there is no new cost burden on the pole or pole owner, either in the form of an additional attachment or by any other measure of cost causative impact.

55. Thus, the observed disparity of the rates yielded by the two formulas is not because of any deficiency in the cable rate formula, which recovers well in excess of the marginal costs of attachment, and relies on a well-established cost-causative method of allocating both direct and indirect costs of the total pole to attacher. Rather, it is to a large extent, based on the failure of facilities-based competition to have emerged at either the level and/or using the technology anticipated at the time of the Act, resulting in a telecom rate higher relative to the benchmark cable rate than might otherwise have been expected. In

⁴¹ See, e.g., *Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation's Proposed Tariff Filing to Revise the Annual Rental Charges for Cable Television Pole Attachments and to Establish a Pole Attachment Rental Rate for Competitive Local Exchange Companies*, Order Directing Utilities to Cancel Tariffs, Cases 01-E-0206, et al, at p. 3 (NYPSC, January 15, 2002) noting in particular the fact that "competition and the number of attachers has not developed as previously contemplated" as the basis for its decision not to increase pole attachment rates above the level of the existing cable rate.

this context, and for the reasons further delineated below, the Commission's tentative conclusion to close the disparity between the two rates by increasing the cable rate up to a level closer to the telecom rate further compounds these past failures and moves precisely in the opposite direction from policies that would promote competition and the deployment of broadband services.

The relative-use methodology embodied in the cable formula offers several significant advantages vis-à-vis the telecom formula approach.

56. To recap, both of the Commission's pole attachment formulas as illustrated in Figures 2 and 3 above allocate the total cost of the pole, albeit using different methods of allocation for the indirect component of costs (i.e., unusable space). Indeed, as illustrated in Figure 4 above, the two formulas actually converge as the number of attaching entities increase. However, the allocation methodology embodied in the cable rate formula which assigns indirect costs in proportion to direct costs and based on relative use or occupancy offers several distinct and significant advantages vis-à-vis the modified headcount or per capita approach embodied in the telecom formula. The key advantages of the cable formula include the following:

- Greater consistency with the fundamental economic principles of cost causation and the approach used by the Commission in its comparable Part 64 cost allocation rules;
- More administratively straightforward to implement and consistent in its application;

- Neutral with respect to both the level of, and the technology used to provide, the facilities-based competition that has emerged in the post-Act period; and
- More closely mimics the outcome of a competitive market with its resultant benefits to consumers of lower rates and a greater array of innovative and advanced service offerings.

57. Part 64 of the Commission’s rules establishes methodology dealing with the allocation of costs between regulated and non-regulated activities specifically designed to prevent the cross-subsidization of the latter. Under Part 64, carriers are instructed to allocate indirect costs (such as common costs defined as costs that cannot be directly assigned to either regulated or non-regulated activities) “based upon an indirect, cost-causative linkage to another cost category...for which a direct assignment or allocation is available.” The way the cable rate formula works (as shown in Figure 3 above) is completely consistent with the Commission’s Part 64 rules. Specifically, under the cable formula, the costs of the entire pole, i.e., “the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole” – including direct (usable) and common (unusable) space alike - are allocated to an attacher based on a “cost-causative linkage...for which a direct assignment or allocation is available” – namely, an attacher’s occupancy of usable space on the pole.

58. This concept of cost-causative linkage, i.e., determining costs of occupancy of indirect or common spaces in a facility on the basis of relative use or the direct occupancy of space is a common and widely-accepted practice in the leasing of property and other facilities throughout the private and public sectors of the economy. One can readily point to other examples where usage-based allocators are used to attribute costs associated with common space and other common overhead type costs.

59. For example, it is typical throughout commercial real estate markets for owners of office buildings to recover the costs of common spaces such as lobbies, elevators, grounds, roof decks, etc. on the basis of the tenants' direct occupancy of square footage. Consistent with the relative use methodology, a tenant occupying the top ten floors of a fourteen -story building would pay proportionately more toward common costs of the building than a tenant occupying only three floors of office space who in turn would pay proportionately more than tenants occupying an individual office suite on a single floor. Given the differences in their respective occupancies of office space, and the resultant cost burdens associated with that occupancy, it would seem nonsensical to assign common costs to the tenants of this building on an equal per capita basis, i.e., totaling up common costs and simply dividing by the number of tenants (which is how the telecom formula works). The same concept applies to tenants leasing residential apartments or those owning condominiums (where residents who occupy a 2000 square foot unit are typically assessed a proportionately higher monthly fee to cover costs of common space and expenses than those occupying a 500 square foot unit), malls (where anchor department stores pay proportionately more toward common costs of the mall than a tenant of a small store-front), and airport terminals (where airlines pay fees to the airport

authority typically based on the number of gates they occupy, not their mere presence in a terminal). As another example, under IRS rules for home office expenses, taxpayers are allowed to deduct a percentage of the total costs of their home based upon the percentage of their home occupied by their office (i.e., dedicated square footage). A person working out of one small room in their house is allowed to deduct proportionately less of the total costs of their home than a person whose entire first floor is devoted to work.

60. The legislative history of the 1978 Pole Act makes precisely these same kinds of analogies, explaining how the cost allocation approach embodied in the cable rate formula is directly analogous to other well accepted, familiar contexts like an apartment house.⁴² With these kinds of leasing analogies serving as models, Congress specifically designed the cable formula to allocate an appropriate share of the cost of the entire pole to cable attachers.⁴³ Consistent with the leasing analogies described above, the costs associated with a third party pole attachment is causally linked to the amount of space occupied by the third-party attachment. Those costs vary with the relative use or occupancy of space by those attaching entities and *not* according to the number of attaching entities.

⁴² “The renter of one of the ten units pays the cost of that unit plus one-tenth of the cost of all common areas. He does not pay one-half the cost of the common areas just because only one other person occupies the other nine units, but rather he pays his one-tenth share of all the costs attributable to the building.” 123 Cong. Rec. 5080 (1977) (Statement of Rep. Wirth).

⁴³ “Cable would pay its share of not just the costs of...usable space but of the total costs of the entire pole, *including the unusable portion* (below grade and between minimum clearance levels.) This allocation formula reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs of furnishing the service which has the greater amount of use.” S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977) (emphasis added).

61. In this manner, the cost-causative linkage embodied in the telecom formula – in which a modified per capita approach is applied to the assignment of indirect or unusable space – is much less transparent. Furthermore, an economic reality of poles is that they can readily accommodate multiple attachers through the process of rearrangements and change-outs. The addition of another entity onto the pole does not result in the displacement or exclusion of another user or use by the utility. Thus, from an economic perspective, there is no underlying cost-causative rationale for allocating a common space on the pole on the basis of the number of attachers. By doing so, the total costs of pole attachment that any given attaching entity pays the utility is an arbitrary function of the number of attachers in a given service area, a condition over which the attacher's own occupancy has no connection. Rather, the number of entities seeking attachment to any given set of utility poles has, and will continue to vary from pole to pole, based on ever-changing market, regulatory, and technological factors that are largely beyond anyone's control and exceedingly difficult to predict as the experience in the post-Act period has taught.

62. The telecom formula, by relying on the number of attaching entities (multiplied by a factor of two-thirds), introduces an artificial construct into the pricing formula – one that has no direct connection to the consumption of space on the pole or to any actual increase in cost burden placed on the utility or its ratepayers. For example, an ILEC occupying three feet of space under a joint-use agreement with the utility could make three attachments on the pole, but under the telecom formula, the ILEC would be counted as a single entity and assigned the same portion of common costs as an entity occupying just

one foot of space providing room for only one attachment. In the context of the leasing examples presented earlier, this would be analogous to charging the tenant occupying one floor in the office building the same amount of common costs as the tenant occupying three floors, as opposed to a more reasonable (smaller) proportionate share such as would be assigned under the cable formula.

63. Because the number of attaching entities varies pole to pole, and service area to service area, the need to track the number of attaching entities adds a level of complexity and arbitrariness to the formula. The cable formula, which relies strictly on the square foot occupancy of an attachment to allocate the cost of the entire pole to an attacher is more straightforward to implement and provides for a more consistent and predictable application of the pole attachment formula across service areas. These features are important to firms in making business case decisions to roll-out new services.

64. Another related benefit of the cable formula not being based on the number of attaching entities is that it does not effectively penalize consumers, or conversely, reward utility owners of essential pole facilities, for the failure of more widespread facilities' based competition to emerge in the post-Act period. Similarly, it does not effectively penalize firms adopting innovative new technologies, such as VoIP, which provide voice services by sending packets of information over existing wires, and therefore require no additional space on the pole and do not engender any new cost burden to the utility. In this important aspect, the cable formula is independent of, and hence more competitively

neutral with respect to, the impact of technology and emerging competition on existing and prospective attachers than the telecom formula.

65. Finally, and perhaps most importantly, from the standpoint of the Commission's objectives of achieving the deregulatory, pro-competitive goals of the Act, economic theory is definitive in its preference for pricing as close to marginal cost as feasible. In this context, the cable rate, because it is closer to (but still well in excess of) marginal cost than the telecom rate, is the relatively more efficient rate – one that more closely mimics the outcome of a competitive market with its resultant benefits to consumers of lower rates and the provision of a greater array of innovative and advanced services.

66. 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 based on a cost-causative (relative use) allocation of the utility's ongoing costs, plus a return) most closely approximates a competitive market rate.

When rates cover marginal costs, rates are subsidy-free.

67. While economists may disagree on many things, there is perhaps one central tenet upon which there is solid agreement, and that is the notion that rates that recover the

marginal costs of production are economically efficient and subsidy-free.⁴⁴ For a subsidy to occur, the utility must have unrecovered costs that *but for* the attacher would otherwise not exist. This is *not* the case where rental rates cover the incremental cost of attachment. From an economics standpoint, where rates cover the incremental or marginal cost of attachment, neither the utility 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).⁴⁵

68. Under these conditions, there can be no valid claim of subsidy or specific cost burden borne by the utility company, its ratepayers, or any other attacher as a result of the attachment, provided the rental rate exceeds the marginal cost of attachment as is indisputably the case with the existing cable formula rate. The economist's notion of cross-subsidy avoidance is consistent with the legal principle in takings law for just compensation as summarized in the *APCo* case.⁴⁶

69. In addition to the cable formula rate, the utility is also allowed to charge cable operators make-ready charges to recover any one-time additional costs incurred in the provision of pole attachments. Because of this additional compensation over and above the cable formula rate (which can be quite substantial), plus the fact that any upgrades to

⁴⁴ See, e.g., Paul A. Samuelson, *Economics*, Tenth Edition, McGraw-Hill Book Company, 1976 at 462-63.

⁴⁵ See, e.g., Bridger M. Mitchell, "COSTS AND CROSS-SUBSIDIES IN TELECOMMUNICATIONS," *The Changing Nature of Telecommunications/Information Infrastructure*, National Academy Press, Washington, DC, 1995. "A group of customers is being subsidized if their price is so low that the service supplier and its other customers would be better off if the service were discontinued. This circumstance occurs only when the increase in revenues to the [telephone] company from offering the service is less than the increased costs of providing it."

⁴⁶ "This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better." *Alabama Power*, 311 F.3d at 1369.

the pole made (and paid for) through the make-ready process become property of the utility, the pole owner is likely made *even better off* after the accommodation of an additional cable attachment. This can occur in any of the following ways:

- The utility receives in excess of the marginal costs it incurs through the combination of make-ready plus the cable rental rate;
- The utility ends up with greater available pole capacity as compared with pre-attachment, because cable attachments place minimal space demands on the pole and poles come in standard heights;
- More space is available on the pole to accommodate additional uses and/or users for which the utility can realize additional sources of revenue; and
- The utility has the benefit of a newer, stronger pole for its own operations at the cable company's expense, and can realize savings (or deferred capital expenditures) to its own build-out program, as recognized by the Commission.⁴⁷

70. In principle, make-ready costs, are designed 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

⁴⁷ “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.” *ACTA*, 16 FCC Rcd. 12209 at ¶ 58.

of costs. 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. 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.

71. Taken together, the *combination* of rental rates - which cover a proportionate share of the operating costs (administration, maintenance, inspections, etc) and the capital costs (depreciation, taxes, and a return on investment) based on the costs of the entire pole - 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. This widely “known fact” played a central role in the Court’s analysis in *APCo*.⁴⁸

⁴⁸ “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 must 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.*” *Alabama Power*, 311 F.3d at 1369, 1370 (emphasis added).

72. Based on economic principles of cost causation establishing a rate is subsidy-free, the Commission's comparable cost allocation rules, and the legal standards for just compensation – *all of which the cable rate satisfies*– there is no basis upon which to conclude the cable rate is a “subsidized rate” that cable operators receive “at the expense of electric customers.” As explained above, neither utilities nor their electric ratepayers are worse off as a result of the application of the cable formula rate, and in fact, with make-ready, utilities are more likely better off following an attachment by a third party.

There is no evidence that increased pole revenues will result in any meaningful rate reduction for the utilities' electric ratepayers.

73. Over the course of the many pole proceedings in which I have been involved, I have seen no evidence from utilities that demonstrate the process by which electric customers would receive an actual benefit if pole rentals from cable companies increase. In the post-Act period, electric utilities have increasingly been subject to lessened forms of rate regulation in connection with the restructuring of that industry and the deregulation and/or divestiture of competitive portions of the utility's business activities, namely the generation and retail sale components, vis-à-vis those portions of the utility's business that continue to be provided by and large on a monopoly basis, i.e., distribution and transmission wires.⁴⁹

⁴⁹ See, e.g., Kenneth Rose, *Electric Restructuring Issues for Residential and Small Business Customers*, National Regulatory Research Institute, June 2000; see also Scott Potter, *After the Freeze, Issues Facing Some State Regulators as Electric Restructuring Transition Period Ends*, National Regulatory Research Institute, September 2003.

74. As part of these restructuring efforts, many, if not most utilities, have been subject to some form of incentive or performance-based regulation in combination with programs of rate stability, price ceilings, or outright rate freezes of basic regulated distribution service rates. Because of the sustained period of rate stability plans and/or freezes in which rates to utility ratepayers change in accordance with exogenous or pre-determined variables, and the increasing irregularity of full-blown rate cases that would delve into the utility's records of accounting at a level of granularity so fine as to be able to trace back an increase in pole rental revenues to a reduction in regulated rates, any claim that pole rental increases would inure to the benefit of ratepayers (as opposed to strictly flowing through to utility shareholders) is highly suspect, absent valid, corroborating evidence. Accordingly, there is no valid economics or public policy rationale for allowing utilities to increase their already compensatory pole attachment rental revenues as would occur with an increase in the pole attachment rates charged cable operators.

The correct way to achieve parity in formula rates is to charge CLECs and other similarly-situated third-party licensees the lower cable rate.

75. As for the issue of parity among providers of broadband services including new VoIP services, all other things being equal, a uniform price per foot of equivalent utility pole attachment would be desirable from both the standpoint of economic efficiency and competitive neutrality. As discussed at the outset of this Report, CLECs and other third-party licensees, like cable, have no practical choice but to attach to utility poles. Moreover, they face the same economic reality of poles, meaning that their accommodation on utility poles is readily accomplished, without having to exclude other existing or potential users, and through the normal and customary operating practices

whereby space on the pole can be rearranged and change-outs to a larger pole can be made. Like cable operators, CLEC and other third-party licensees pay for the total out-of-pocket costs associated with their attachment in the form of make-ready charges to the utility designed to fully recover the utility's avoidable or additional costs of making space available to attachers. Like cable, CLEC and other third-party licensees receive no benefit from any improvements to the utility pole they have financed other than the ability to attach; any added value to the utility's pole assets created through the make-ready process accrues to the sole benefit of the utility owner. As in the case of cable attachers, the closer the prices that CLECs and other third party attachers are charged for their shared use of the natural monopoly pole facilities are to the owner's marginal costs of attachment, the more efficient the outcome in terms of maximizing the productive use of societal resources and the resultant benefits to consumers, including lower prices and greater and/or more innovative service offerings.

76. However, all other things are not equal, and there are important trade-offs that must also enter the calculus of the Commission's decision. In particular, achieving parity between the cable and telecom formula rates will *not* advance the pro-competitive goals of the Act if it is accomplished by increasing the cable rate, which will have the effect of *raising* cost levels for many users of broadband and VoIP services and shifting a significant amount of money to the pole-owning utilities. If the parity rate is set at a level materially higher than the existing cable rate, which as noted above, is already well in excess of the competitive level (i.e., marginal cost), then adopting a policy of parity will raise the regulated rate for an important input used to provide broadband services to many

users even further above the economic cost. As discussed more below, raising the cable rate will introduce even greater market distortions vis-à-vis the competitive benchmark of marginal cost pricing, precisely the opposite of what the Commission's regulatory goals of promoting competition and deployment of broadband services would dictate.

77. From an economics and public policy perspective, if parity in formula rates is the desired goal, then the correct way to achieve this goal and avoid any negative impact on competition and deployment of broadband services is to charge CLECs and other third-party telecommunications attachers the lower cable rate. The Commission's maximum rates for conduit rentals are already determined in this way,⁵⁰ and a number of state commissions with jurisdiction over pole attachments make no distinction between cable and telecom with regard to poles, applying the cable rate formula to all, for many of the very reasons noted above.⁵¹

78. Another relevant consideration to take into account in evaluating the issue of parity, is that there are a number of differentiating factors among attachers, particularly as between ILECs as a joint owner of the utility pole and cable and other third-party licensees. As

⁵⁰ See *Report and Order*, CS Docket No. 97-98 (released April 3, 2000), FCC 00-116, ¶ 89.

⁵¹ See, e.g., *In the Matter of Certain Pole Attachment Issues Which Arose in Case No. 94-C-0095*, 1997, N.Y. PUC LEXIS 364, *9-10 (June 17, 1997) citing "greater certainty for service providers and better conditions for telecommunications competition" and to "stimulate economic development;" also, *Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation's Proposed Tariff Filing to Revise the Annual Rental Charges for Cable Television Pole Attachments and to Establish a Pole Attachment Rental Rate for Competitive Local Exchange Companies*, Order Directing Utilities to Cancel Tariffs, Cases 01-E-0206, et al., at p. 3 (NYPSC, January 15, 2002) citing "efforts to encourage facilities-based competition and to attract business in New York." See also *Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service*, R. 95-04-03, I. 95-04-044, Decision 98-10-058 (Cal. PUC Oct. 22, 1998) noting its decision to apply a consistent cable rate to all services "avoids protracted disputes over how particular attachments are being used or how separate rates may be prorated based on different volumes of transmission over the same connection" and "promotes the incentive for facilities-based competition."

will be discussed in a later section of this Report, because of these various differences including the amount of space occupied, and the precise manner in which charges and other terms and conditions related to that occupancy are applied, one cannot necessarily assume that adoption of a unified rate, in and of itself, will achieve a level competitive playing field and produce the desired stimulatory effects on the deployment of broadband services.

INCREASING THE CABLE RATE EVEN FURTHER ABOVE MARGINAL COST IS NOT JUSTIFIED UNDER PRINCIPLES OF ECONOMIC EFFICIENCY AND JUST COMPENSATION, AND WOULD BE DETRIMENTAL TO COMPETITION AND BROADBAND DEPLOYMENT.

79. Pricing pole attachments at levels that more closely approximate the competitive market standard of marginal costs is most economically efficient from a resource allocation point of view. Perhaps even more importantly in the context of the questions posed in the NPRM, it creates conditions more likely to simulate and therefore stimulate competition market performance. These competitive market attributes produce wide-ranging benefits to consumers in the form of lower prices, greater choices among new and innovative broadband services, enhanced productivity and economic development opportunities for the national and local economies. Because of the positive impacts associated with a competitive market environment, it makes economic sense to ensure cable's access to essential pole facilities continues at levels that more closely approximate the competitive market standard of marginal costs.

An increase in cable broadband and VoIP pole rents will negatively impact competition for voice and other advanced services.

80. Adopting increases to the cable formula rate that even further diverge from an efficient competitive rate, as proposed in the NRPM, creates economic conditions less favorable to those required to achieve the expressed goals of the Act for a number of reasons. First, cable operators face significant price constraining competition in their core multichannel video programming market from Direct Broadcast Satellite (“DBS”) providers and other providers including ILECs and newer power company affiliates.⁵² Having to absorb higher pole rents will reduce the cable industry’s ability to meet financial and investment obligations including those related to the build out of infrastructure needed to support the widespread deployment of advanced information-age services and technologies, including VoIP services. Investment in marginal areas, such as rural areas of the country, will be most notably impacted. Higher pole costs are likely to make construction in such areas uneconomic, despite the existence of surplus space on utility poles that would otherwise be available and readily utilized for deployment of advanced service and technologies.

81. Second, while cable companies may not generally be in a position to flow through higher pole costs due to the price constraining competition they face, to the extent they are able to do in selected markets, it will raise the cost of broadband and VoIP services in those markets, thereby reducing the ability of consumers (who include electric

⁵² See, e.g., Federal Communications Commission, *Annual Assessment on the Status of Competition in the Market for Delivery of Video Programming*, Twelfth Annual Report, MB Docket No. 05-255, ¶¶ 6-7 (rel. March 3, 2006) (FCC Video Competition Report).

distribution customers) to afford and enjoy the very broadband services that the Commission's policies are intended to encourage. While as discussed above, there is no evidence that increased pole revenue will result in any meaningful reduction of rates for residential electric services for which the utility remains the monopoly provider, an increase in cable broadband and VoIP pole rents will materially impact residential price competition for voice and other advanced services offered in competitive markets.⁵³

82. The existing cable rate, combined with make-ready charges, already exceeds the marginal cost of attachment, such that there is no cross-subsidization of the utility (or by extension, its ratepayers. Accordingly the benefits that accrue to consumers from keeping the cable rate for pole attachments at a level that more closely approximates a competitive market outcome can be achieved without any economic harm to the utility or its ratepayers. In efforts to extract higher pole rental rates from third party licensees, utilities have argued to the contrary, that lower rates to third party licensees necessarily means losses to the utilities, and by extension, their ratepayers. The utilities' argument has no basis according to established economic principles of cost causation as described in the previous section or to the valuation principles of just compensation, given the economic reality of poles.

⁵³ Based upon data available from Charter Communications, Inc. in connection with this proceeding, increases in pole rental rates in the range of \$10 to \$17, such as contemplated in the NPRM, could result in increases to the consumer (especially in rural areas) as high as \$4.95-\$8.66 per Internet subscriber per month and \$13.27-\$23.23 per voice subscriber per month.

There is no basis in economics or under the *APCo* just compensation standard to justify an increase in the existing cable rate.

83. The economic reality associated with the accommodation of additional third party attachments on utility poles is that they are not “zero sum.” “Zero sum” is an economic term that describes a situation where if one party gains, the other party to the transaction must necessarily lose by the amount of the former’s gain. The reason why third party attachment to utility poles at rates approximating marginal cost is *not* zero sum to the utility involves the economic concepts of full capacity and opportunity cost. These concepts lie at the core of economic theories of resource allocation and efficient pricing and are embodied in the Eleventh Circuit’s landmark *APCo* decision which established a standard for just compensation applicable to utility pole attachment conflicts.⁵⁴

84. The *APCo* case reaffirms the standard of marginal cost as just compensation. It is only by satisfying a set of exceptions to the delineated “economic reality” of poles that the utility would be allowed to seek a pole attachment rate for cable operators in excess of marginal cost (other than the cable formula rate, which, as acknowledged by the Court, provides “for much more than marginal cost” and therefore “necessarily provides just compensation.”)⁵⁵ The dual prong test established in *APCo* requires a showing of proof of both full capacity and lost opportunity, before a utility can seek to charge a pole attachment rate in excess of marginal cost (again other than the cable rate).

⁵⁴ *Alabama Power*, 311 F.3d at 1369-70.

⁵⁵ *Id.*

85. “The “economic reality” upon which the Court bases its required showing relates to the “unique” nature of poles that makes them “for practical purposes, *nonrivalrous*.”⁵⁶ Where a resource is “nonrivalrous,” one entity’s use of a resource does not diminish or preclude the use by another. Such a condition is the polar opposite to the concept of zero sum as described above. 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, or require the utility to displace another user or use of the pole, then, by economic definition, there is available or effective capacity on the pole, even if the pole appears “crowded,”⁵⁷ and the pole is not at full capacity.

86. That this nonrivalrous condition generally exists on poles is due to an inherent economic characteristic of poles, where under normal operating conditions of production, capacity is *not* fixed in the short-run. Rather, pole capacity is dynamic in nature. Based upon information provided by utilities with which I am familiar, in the overwhelming majority of cases, additional attachments can (and are) accommodated in the course of normal and customary operating practices of pole owners, including pole rearrangements and change-outs.⁵⁸

⁵⁶ *Id.*, emphasis added.

⁵⁷ 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, 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, as is typically the case with poles, then it is not at full capacity.

⁵⁸ See EB Docket 04-381, 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, see also *FCTA* at ¶ 25 (“When capacity is available through

87. In this very real economic sense, pole capacity is neither static nor finite, such that the sharing of poles does not generally result in either a physical or economic exhaustion of the shared resource. Generally speaking, it is the fixed nature characteristic of most inputs that limit capacity or scale of operations. While all inputs are ultimately variable in the long run, 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.

88. A utility is able through normal and customary business practices such as pole rearrangements and change-outs – i.e., make-ready work done at the third-party’s expense, to harness greater effective pole capacity in the present time frame.

Accordingly, it makes no sense from an economics perspective to say the pole is at full capacity and to use such an assertion to justify prices to those third-party attachers in excess of marginal cost based on scarcity value.⁵⁹

89. The only situations where a state of full capacity can be demonstrated pursuant to the economic reality test in *APCo* are those in which pole change-outs cannot practically occur due to terrain, obstructions, or zoning restrictions such that it will not be possible

rearrangement or expansion of a pole’s height, its capacity cannot be full since there is no exclusion of another and no missed, foreclosed, or lost opportunity.”), and at n. 11.

⁵⁹ As the Commission’s Chief Administrative Law Judge articulates in rejecting the utility [Gulf Power] argument that “a need to use make-ready to accommodate an attachment constitutes proof of full capacity:”

“To the contrary, make-ready is the means of providing space for attachments on poles already having the capacity to expand, which is the case for practically all of Gulf Power’s poles.” *FCTA* at ¶ 25.

for the utility harness greater effective capacity on a pole.⁶⁰ While these types of situations may be limited in nature, it does not refute the economic reality that these are the only true conditions under which poles can be characterized as zero sum or rivalrous in nature. The relative infrequency of “full capacity” poles has no substantive bearing on the validity of the economic concept of full capacity as it applies to poles.

90. The routine practice of utilities to accommodate additional pole attachments is the antithesis of a zero sum situation or a state of resource exhaustion. After performing what is routine work on the pole (for which it is fully compensated by the incremental attacher through make-ready charges), the utility does not have to displace any existing attachment, or turn away a new attachment. In fact, the power company is typically able to accommodate even more attachments after the routine make-ready work has been performed than it was before. In such a situation, pursuant to *APCo*, and the economic principles of cost causation underlying the *APCo* standard for just compensation, there is no basis to permit the utility to charge a rate higher than the cable rate (which is already in excess of marginal cost). As I understand it, this is precisely what would occur under the Commission’s tentative conclusion to increase the cable formula rate.

That the telecom rate allocates unusable space based on the number of attachers does not make it more economically justified than the cable rate.

⁶⁰ “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.” See EB Docket 04-381, Complainants’ Responses to Gulf Power’s First Set of Interrogatories and Document Requests, April 18, 2005, at 18.

91. Under the *APCo* test, it is not sufficient to demonstrate that a pole satisfies the economic condition of full capacity in order to justify a rate in excess of marginal cost (again, other than the cable rate, which already exceeds that level). The other prong of the *APCo* test requires the demonstration of “lost opportunity,” which also ties back to the zero sum concept.⁶¹ To prove “lost opportunity” in an economically meaningful way, the utility would have to show – in a quantifiable and verifiable manner – that it has suffered an actual loss in terms of foregone revenue or actual cost consequence as a result of the existence of full capacity on a pole. In other words, the utility must be able to demonstrate it is *financially worse off* as a consequence of a cable attacher paying for pole space under the existing regulatory regime (i.e., combination of cable formula rent plus make-ready).

92. If all additional attachments are in fact accommodated or capable of accommodation through normal business practices (i.e., there is no exclusion or displacement of service), and attachers pay the utility for any costs it incurs to make that accommodation through make-ready charges and rental fees on top of those charges, then there can be no valid claim that the utility has or will experience a tangible loss as a consequence of the attachment. Under these conditions, there can be no justification for increasing the level of payments to the utility.

⁶¹ 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.” *APCo* at 1370. A hypothetical better use does not establish loss or lost opportunity. “It is only when a ‘government taking forecloses an opportunity to sell

93. Because of this economic reality of poles, it is wrong to conclude, as appears in the NPRM, that there is a necessary correlation between the number of users on the pole and the state of “full capacity” on that pole,⁶² or the corollary, that adding an additional attachment necessarily results in a “lost opportunity” for the utility. Indeed, these arguments were solidly rejected by the Commission’s Chief Administrative Law Judge.⁶³ In this context, it would be wrong to conclude that the telecom rate because it allocates unusable space on the basis of number of users is a more cost-causative or economically efficient rate than the cable rate.

The inability to extract additional pole rent over and beyond a competitive rate from captive attachers is not a “cost” to which utilities are entitled.

94. In the typical case, the pole owner ends up decidedly “better off” under the current regulatory regime after an incremental cable attachment since the utility receives in excess of the marginal costs of the attachment and typically ends up with greater available pole capacity to rent or use for its own purposes. The fact that the utility has been precluded by regulatory intervention from being able to extract additional “value” from attachers in the form of monopoly rents (rates in excess of the competitive rate) cannot be considered as a valid “lost opportunity” from the standpoint of objective, economically appropriate standards.

space to another bidding firm that a pole owner may charge rents above the cable formula.” *FCTA* at ¶ 22, citing 311 F.3d at 1370.

⁶² See NPRM at ¶ 13.

⁶³ *FCTA* at ¶¶ 9-10.

95. To accept the utility's position that its inability to extract additional value over and beyond a competitive rate from attachers represents a real "cost" to which it is entitled would enable and incent the utility to further exploit its monopoly ownership of the pole network, charge inefficiently high rates, and mismanage its pole space. This is precisely the behavior that would be expected of a utility with control of essential facilities if free from regulatory scrutiny. This behavior, however, produces outcomes directly opposite from those needed to foster competition and encourage deployment of advanced services by providers that require use of the utilities' pole networks to effectively compete. Those include: lower prices for essential pole facilities; easy, non-discriminatory access to pole space; and efficient management of pole space to maximize the ready availability of pole space to any and all attachers.

DIFFERENTIATING FACTORS AMONG ATTACHERS, INCLUDING MAKE-READY CHARGES PAID BY CABLE AND OTHER THIRD PARTIES, BUT NOT TYPICALLY ILECS, MUST BE ACCOUNTED FOR IN ASSESSING THE IMPACTS OF A UNIFIED POLE RATE ON COMPETITIVE PLAYING FIELD.

96. There are a number of differentiating factors between attachers that need to be taken into account before meaningful conclusions can be drawn about the impact that a unified pole rate would have on the competitive playing field, as well as the necessity of adopting such a rate for all attachers providing broadband services. In particular, there are significant differences between the manner in which utilities interact and receive compensation from cable operators and other third parties vis-à-vis ILECs and other telcos subject to typical utility/ILEC joint use agreements under which both parties to the agreement build poles and grant reciprocal access to each other's poles.

As joint owners, ILECs face a different and more favorable set of rights, terms, and conditions for pole attachment than cable and other third-party licensees.

97. Historically, cable operators have been treated strictly as licensees, whereas the latter have been treated as joint owners of a shared network of utility/telco poles and party to joint use agreements. As joint owners, ILECs are afforded an entirely different and more favorable set of rights, terms, and conditions for pole attachment, including more planning oversight and control, albeit with certain responsibilities that go hand-in-hand with those privileges.⁶⁴ The joint-owner relationship between utilities and ILECs is non-replicable for cable and other third-party licensees.

98. Perhaps the most important differentiating factor, in terms of direct financial impact, is the payment of make-ready charges by cable operators and other third party attachers. As noted above, under the Commission's rules, the utility is allowed to charge cable operators and other third party attachers make-ready charges *in addition to* the pole formula rate, to recover any *one-time* additional costs incurred in the provision of pole attachments, that the utility submits would not have incurred, *but for* the attachment request. The make-ready process is the practical vehicle by which utilities have accommodated additional pole attachments by cable and other third parties. Make-ready work involves the normal and customary business practices of pole owners to modify poles or lines, including the installation of guy wires and anchors, the rearrangements of lines, including those that correct code violations, and the change-out of poles to a taller or stronger pole.

⁶⁴ For example, it is my understanding that joint owners may share liabilities for incidents relating to such things as car accidents and storm replacements, as a contractual benefit to the utility. See Ex. 85, Deposition of Rex Brooks, September 16, 2005, at 14-16; see also Ex. 86, Deposition of Michael Dunn, at 78-79 in *Florida Cable Television Ass'n*, EB No. 04-381.

Make-ready payments to the utility can be substantial, totaling in the millions of dollars annually.⁶⁵ As such, make-ready payments represent an important component of cost to the attacher and compensation to the utility.

99. Based upon my review of joint use agreements between utilities and ILECs in the course of my involvement in pole proceedings over the years, it is my understanding that the situation applicable to ILECs differs in a number of important respects. First, an ILEC who is party to a typical utility/ILEC joint use agreement generally pays *no* make-ready charges to the utility for work relating to additional pole attachments except for perhaps the difference in raw cost of a taller bare pole, which is generally insignificant.⁶⁶ Second, an ILEC or telco party to joint use agreement is typically guaranteed between 2 and 3 feet on each joint use pole and allowed to place attachments that are heavier than those placed by cable operators, and that I understand may place greater physical stress on poles.⁶⁷ Third, no advance permission is required for the ILEC to attach to a joint use

⁶⁵ Data from Alabama Power identify annual make-ready payments from third-party licensees of more than \$1-million, which translates into \$3.46 expressed on a per pole attachment basis. See APCo's Response to Complaint, Tab 1, Item 13, and Exhibit 2, Schedule of Parties, Poles, and Communities from *Alabama Cable Telecommunications Ass'n v. Alabama Power Co.*, File No. PA 00-003. Georgia Power identifies annual make-ready amounts of \$2.25-million for 2007 and \$6.2-million for 1999. Presentation of Alan Bell, Distribution Support, Georgia Power Company, entitled "The Make-ready Process." Utilities Telecom Council, 2008 Pole Attachment Meeting, Washington, D.C., January 14-15, 2008, p. 3. The smaller \$2.25-million Georgia Power figure translates into \$8.06 on a per pole contact basis.

⁶⁶ See Ex. 84, Deposition of Ben Bowen, at 282-284 in *Florida Cable Television Ass'n*, EB No. 04-381, and Gulf Power Exhibit 54, page 1, "Roll Forward Ledger, Distribution Plant Units."

⁶⁷ See Direct Testimony of Victor N. Gates on behalf of the Michigan Cable Telecommunications Association, at 14; Cross Ex. of Victor N. Gates, Tr. 772-73 in *In the matter of the application of Consumers Power Company for authority to modify tariffs governing attachments to poles; In the matter of the application of the Detroit Edison Company for authority to modify tariffs governing attachments to poles; In the matter of the proceeding, on the Commission's own motion, to examine setting just and reasonable rates for attachments to utility poles, ducts, and conduits, pursuant to MCL 460.6g; MSA 22.13(6g)*, Michigan Pub. Svc. Commission, Case No. U-10741; Case No. U-10816; Case No. U-10831. According to the unchallenged testimony of Mr. Gates: "Electric lines, which are mostly metal, are the heaviest of all the conductors on the pole. For example, "0" primary weighs 384 pounds per 1000 feet; "0" triplex weighs 412 pounds per foot; and "0000" service wire weighs 585 pounds per 1000 feet." *Id.* at 15.

pole or to add multiple lines (e.g., as with FiOS); ILECs can build at their own discretion, as well as upgrade to broadband technologies, without going through either an application or make-ready process – both of which I understand can be quite tedious. Fourth, if a taller and/or stronger pole is needed to accommodate an additional ILEC attachment, then the ILEC bears the expense, but will gain ownership of the new pole, and will get a credit for the depreciated value of the replaced pole.

100. By contrast, a cable licensee has to apply for a permit before attaching, and pay whatever make-ready charges the utility unilaterally determines is associated with the changes or upgrade to the pole required to accommodate the additional cable attachment, before the attachment is allowed to take place. This process can result in considerable delay to the licensee. As a licensee versus joint owner of the pole, the cable operator is subordinate to and may be preempted by the telephone company. In addition, where a taller pole and/or stronger pole is needed to accommodate the additional attachment, the cable operator too bears 100% of the cost to upgrade the pole, but the upgraded pole becomes sole property of the utility, along with any increased rentals that the upgraded pole can now accommodate. Moreover, the cable operator receives no credit offset relating to the increase in asset value between the original and upgraded pole.

“Telephone conductors are the next heaviest. For example, 3/4” telephone cable weighs 330 pounds per foot.” *Id.* “Cable television facilities (as opposed to power and telephone facilities) are by far the smallest and lightest conductors on the pole. For example, coaxial cable, made of aluminum wrapped around polyurethane foam with a small center conductor, weighs approximately one-fourth the weight of primary electric conductor.” *Gates Direct* at 14. “One-half inch coaxial feeder (distribution) cable weighs 78 pounds per 1000 feet, while trunk cable weighs 171 pounds (for 3/4” trunk). Fiber optic conductors most commonly used for cable television construction today, at .59” in diameter, weigh 50 pounds per 1000 feet.” *Id.* “In addition to attaching the lightest facilities to the pole, cable operators also attach the fewest facilities to the pole.” *Id.* See also Presentation of Tom St. Pierre, Senior Counsel, AEP, “FCC Joint Use Ratemaking – Where Will They Go From Here?,” Utilities Telecom Council, 2008 Pole Attachment Meeting, Washington, D.C., January 14-15, 2008, pp. 15-16, in particular, bullet entitled “ILECs consume a significant amount of pole space.”

101. Another major difference under the typical joint use agreement is that the ILEC does not make rental payments per se to the utility for attachment rights to joint use poles. Instead, the ILEC pays an “adjustment rate” based on only a small percentage of the joint use poles owned by the utility that the ILEC occupies. That percentage is calculated based on the percentage of poles that are out of balance with a pre-determined level of parity of pole ownership established under the joint use agreement. As long as pole ownership by each party to the agreement remains within the specified range of ownership parity (e.g., 50/50, 55/45, 60/40), no payments between the two parties cross hands. As I understand it, a fundamental goal underlying utility/ILEC joint use agreements has been to maintain parity and to avoid payment of adjustment rates between the parties. So, for example, where there is a need for new joint poles, if the number of poles owned by the ILEC was falling out of parity with the utility, the ILEC could assume ownership of the new poles in order to bring its percentage of pole ownership closer to parity.

102. As explained in deposition questioning of utility witnesses with which I am familiar, under a typical joint use agreement, pole adjustment rates take on less importance vis-à-vis maintaining parity and upholding other non-pecuniary term and conditions of the joint use agreement. This is logical, if for no other reason than any such “adjustment rate” which the utility charges the ILEC would typically (and by design) apply only to a relatively small percentage of the ILEC/utility’s joint use poles.

Expressed on an equivalent per-pole per-foot basis, inclusive of make-ready, there is much less divergence in amounts ILECs and cable operators pay.

103. To illustrate how such an arrangement works, a representative example based on an ILEC/utility joint use arrangement with which I am familiar, and which I believe to be typical of such agreements, is presented in Attachment 3 to this Report. The particular case study illustrated in Attachment 3 is structured upon a pole ownership parity ratio of 55% utility /45% ILEC. As long as this parity ratio is maintained, the ILEC makes no payments to the utility. However, under the terms of the joint use agreement, the ILEC is required to make an annual adjustment payment per pole when its ownership percentage falls below 45%. The number of poles for which the adjustment rate is applied is based on the difference between the 45% parity benchmark and the ILEC's actual pole ownership percentage for the study year. In the example presented in Attachment 3, the number of ILEC-owned joint use poles falls approximately 4% below the 45% parity ratio. Accordingly, the ILEC is required to pay the utility the adjustment rate on only 6500 poles, representing just a little over 4% of the total number of joint use poles (150,000 in this case).

104. To make a meaningful apples-to-apples comparison of the cost of additional attachment incurred by the ILEC subject to a joint use agreement with the utility and the cost of additional attachment incurred by a cable operator as a licensee, a number of normalizations must be made. First, since the cable operator pays the utility a rental rate on all poles to which it is attached, and the ILEC pays the adjustment rate only on the number of poles out of parity, it is necessary to express the ILEC payment in terms of an

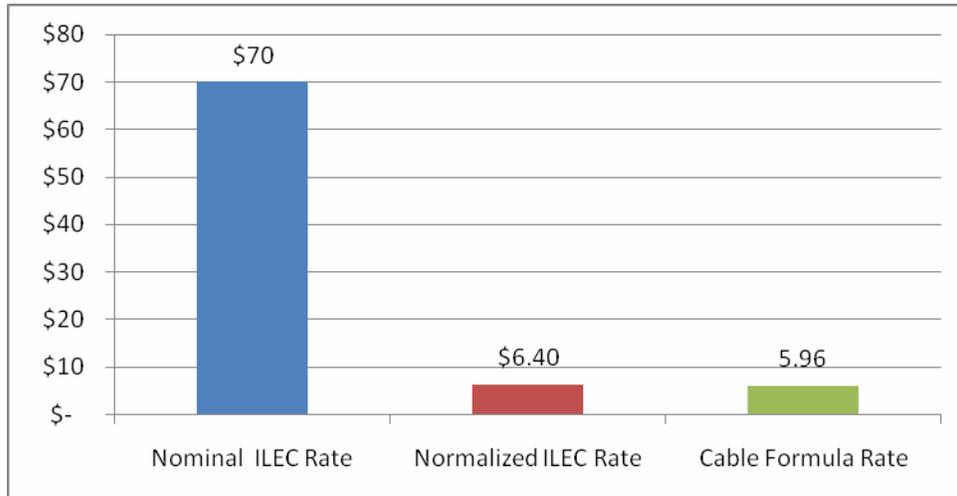
average rate per joint use pole to which the ILEC is attached. That figure, derived by dividing the total ILEC adjustment payment by the total number of joint use poles, turns out to be \$16.48 per pole in this case.

105. Second, since the cable operator is required to pay a make-ready charge per pole in addition to the rental rate, while the ILEC does not, it is necessary to impute to the ILEC an average make-ready charge per pole. Make-ready information identified in the Commission's Alabama Power case (see note 65 above) is used as a proxy. Netting that cost (\$3.46 annual make-ready per contact) against the \$16.48 per pole figure brings the latter down to \$12.79.

106. Third, since the cable operator occupies only 1 foot of pole space, whereas the ILEC is assigned between 2 and 3 feet, it is necessary to adjust for the fact that the ILEC may occupy between two to three times the space on the pole. To be conservative, the analysis assumes the smaller 2 foot figure, and the \$12.79, expressed on a per foot basis, translates into an effective ILEC per pole per foot of attachment cost of \$6.40. By comparison, the cable formula rate in the service area for the same general study period is calculated at \$5.96. Thus, after the appropriate normalizations are made, the effective ILEC per pole per foot rate is shown to converge with the cable rate, as shown in Figure 5 below.

Figure 5

Representative ILEC Joint-Use Adjustment Rate v. Cable Formula Rate



The extent to which adoption of a single pole rate will level the playing field cannot be determined without considering key differentiating factors among attachers.

107. As demonstrated by the representative example depicted in Figure 5 (and in Attachment 3), it is important that the Commission take a closer look at key factors affecting the terms and conditions of attachment to utility poles. Without a careful consideration of all the relevant factors, it is not possible to draw meaningful conclusions about the impact of, and related need for, moving toward adopting a single pole attachment in the context of producing a level competitive playing field for all attachments used to provide broadband services.

108. In particular, in comparing charges paid by cable operators vis-à-vis ILECs, make-ready charges, which cable operators pay, but ILECs typically do not, represents a significant source of utility compensation and need to be included in any competitive impact analysis of the Commission's proposal to move toward a unified rate for all attachments. The data with which I am familiar, and as presented in Attachment 3 of this Report, suggest that once expressed on an equivalent per pole per foot basis inclusive of make-ready charges, there is not the level of divergence between amounts paid by ILECs for additional pole attachment and those paid by cable operators as appears assumed in the NPRM. Accordingly, there is not the assurance that moving toward a single pole attachment rate will create a more level competitive playing field and demonstrative benefit for consumers of broadband services.

109. In summary, one cannot conclude based on the preceding discussion that adopting a single pole rental will necessarily level the competitive playing field absent a full and careful understanding of key differentiating factors among attachers. However, one can say with more certainty that there will be harm to consumers of broadband services if the Commission proceeds, as tentatively concluded in the NPRM, to adopt a uniform rate at a level higher than the existing cable rate, or to divest itself of authority over existing pole attachment contracts.

WITH HISTORICAL IMBALANCE IN BARGAINING POWER BETWEEN UTILITY POLE OWNERS AND THIRD-PARTY LICENSEES CONTINUING, EFFECTIVE REGULATORY INTERVENTION REMAINS NECESSARY TO CONSTRAIN RENTS AND TO PROTECT ATTACHERS WHO OTHERWISE WOULD HAVE NO RECOURSE.

110. A utility's self-interested motivation, as monopoly owner of poles, is to artificially restrict the supply of pole space in order to charge an excessively high price. 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 and control of the poles. In particular, the 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, such as marginal costs.

The imbalance in bargaining power has not changed in the post-Act period.

111. The imbalance in bargaining power between utility pole owners and third party licensees has not changed in the post-Act period. This is consistent with the fact that the underlying economic condition of poles as essential facilities, as established at the outset of this Report, continues to exist in the post-Act period. Indeed, as established earlier, the utility's incentive and ability to leverage its ownership and control of essential pole facilities has become even more heightened in recent years as the possibility of utilities directly competing with third party licensees has increased. It is only through effective regulatory intervention that pole rents remain constrained.

112. By virtue of the former's ownership and control of existing pole networks, cable companies and other third party licensees negotiating pole rental fees do not enjoy even close to an equal bargaining position with regard to the setting of pole rates. The frequent suggestion by utilities that there is an equal bargaining position between itself and third party licensees over rents, or alternatively, a "free market" for poles, would require the existence of an established, active market for pole space in which cable and other third party attachers have realistic choices with regard to renting and/or providing their own pole space. Only under such conditions, where there are viable competitive alternatives for pole space available to third party attachers, would utilities not be in a position to charge exorbitantly high prices relative to cost. Rather, the utility would be subject to the pricing disciplines of a competitive market, which would bid prices down toward cost. Such conditions do not exist in the real world.

113. The concept of a free market for poles is wholly inconsistent with the practical and economic realities of utility poles as essential facilities, and the behavior of utility owners in seeking to unilaterally impose rate increases of magnitudes many multiples greater than marginal cost. Given the leverage the utility company can bring to bear, any claim that third-party attachers have "freely negotiated" with the utility or that neither buyer nor seller is under any compulsion to buy or sell (a condition commonly used in the valuation literature to define a free market value) is without merit. The Commission reached this very finding in its *APCo* opinion.⁶⁸

⁶⁸ "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." *ACTA*, 16 FCC Rcd. 12209, at ¶ 55.

Transactions or even formal executed agreements between third-party attachers and utilities cannot be viewed as “free market” benchmarks.

114. Where competitive market conditions do not exist (as is the case with pole and conduit space leased from incumbent utilities), there are no competitive pressures to constrain prices charged by the seller to levels approximating marginal costs. Under such conditions, and absent effective regulatory scrutiny and intervention when necessary, the “free market” rate degenerates into an unregulated monopoly rate that incorporates supra-normal monopoly profit for the seller.

115. By practical necessity, firms, either early in their life cycles or in early or critical stages of their business plans, have little recourse but to accept rates well in excess of the regulated formula rate for access to essential facilities. This is the case even when those rates may not be sustainable in the long run in order for the firm to gain entry, establish a foothold in a market, or meet franchise service requirements. The reality is one where third party attachers, with minimal bargaining clout, have had little practical choice but to generally accept the rates and terms for pole attachment offered by the utility, typically on a “take it or leave it” basis, in order to gain access to a bottleneck facility they need to provide service.

116. A common pattern for firms dependent on essential facilities under the ownership and control of incumbent utilities 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 or met their operational goals. The number of complaint proceedings and other litigation in recent years between utilities and third party attachers is clear evidence of this pattern. Given these real-world conditions, it would be incorrect to view transactions or even formal executed agreements between third-party attachers and utilities, as representative free market benchmarks over which the Commission's regulatory authority need not apply.

The option of regulatory intervention to settle contract disputes will serve to facilitate true negotiation among the parties and to promote lower pole rates.

117. Because of the unequal bargaining position of cable companies and the utilities, the negotiation process alone cannot be relied upon to prevent the over-recovery of pole costs. Without the possibility of direct intervention by the Commission, third-party attachers, on their own, would have little recourse but to accept the "take it or leave it" conditions for pole attachment offered by the utilities. Maintaining the option of regulatory intervention by the Commission to settle contract disputes serves to facilitate true negotiation among the parties rather than to retard it.

118. The certainty of the Commission's cable rate formula, along with a continued commitment on the part of the Commission to resolve difficult rate disputes, provides the incentives for parties to resolve disputes without resort to formal proceedings. If the Commission removes itself from the process in cases where agreements exist between the

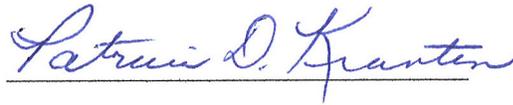
parties, the prices and terms of access to essential pole facilities are likely to relapse into the monopoly abuses that led to the regulation of poles in the first instance.

119. Monopoly profits for the utility associated with higher pole rates, such as sure to exist in the absence of effective regulatory intervention, will come at the expense of the captive buyer of space on the utility's poles. However, the ultimate harm will be to the broad base of consumers who buy the latter's products and services. As mentioned earlier, because the utility does not operate in a competitive market, and due to the manner in which electric distribution rates are regulated, there is no indication that the monopolist's own ratepayers would see any of the increased profits in the form of reduced electric rates. Even more importantly perhaps, because the utility's electric ratepayers are themselves consumers of broadband services, they stand to benefit directly from the lower rates and increased deployment of new and innovative services in the broadband market that lower regulated pole attachment rates will facilitate.

120. The option of regulatory intervention remains necessary to help ensure the negotiation process produces an outcome that effectively and efficiently balances the interests of the utility and the third-party attacher, and at the same time promotes the public policy goals of a competitive telecommunications market and the widespread deployment of advanced information-age services and technology.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: March 6, 2008

A handwritten signature in blue ink that reads "Patricia D. Kravtin". The signature is written in a cursive style and is underlined.

Patricia D. Kravtin

Attachment 1

Patricia D. Kravtin

57 Phillips Avenue
Swampscott, MA 01907
781-593-8171
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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 public 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.

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“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.

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“The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers,” Feb. 1994.

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“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 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.

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“Multi-product Transportation Cost Functions,” MIT Working Paper, September 1982.

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2006

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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

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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

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2004

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2003

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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*, Case 02-M-1636, Affidavit filed December 19, 2002.

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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.

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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

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 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'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.

1987

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.

1986-1982

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

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).

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.

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.

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

Cost Allocation Factors in Cable v. Telecom Pole Attachment Formulas

Height of Pole	37.5	37.5	37.5	37.5	37.5	37.5	37.5	
<hr/>								
Cable Formula								
Space Occupied / Usable Space	1 / 13.5	1 / 13.5	1 / 13.5	1 / 13.5	1 / 13.5	1 / 13.5	1 / 13.5	
=Percentage	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	
<hr/>								
Telco Formula								
Space Occupied + Unusable Space/	1 + 24.0	1 + 24.0	1 + 24.0	1 + 24.0	1 + 24.0	1 + 24.0	1 + 24.0	
No. Attaching Entities	3	4	5	6	7	8	9	
= Unusable Space Allocation x Percentage =	24.0 / 3 = 8 x 0.67	24.0 / 4 = 6 x 0.67	24.0 / 5 = 4.8 x 0.67	24.0 / 6 = 4 x 0.67	24.0 / 7 = 3.4 x 0.67	24.0 / 8 = 3.0 x 0.67	24.0 / 9 = 2.7 x 0.67	
Unusable Space Allocation	5.3	4.0	3.2	2.7	2.3	2.0	1.8	
Total Space Allocation / Total Space	6.3 / 37.5	5.0 / 37.5	4.2 / 37.5	3.7 / 37.5	3.3 / 37.5	3.0 / 37.5	2.8 / 37.5	
=Percentage	16.89%	13.33%	11.20%	9.78%	8.76%	8.00%	7.41%	

Attachment 3

Representative ILEC Joint-Use Pole Attachment Adjustment Rate vs. Cable Rate

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total Poles	Utility Poles	ILEC Poles	Addtl Joint Poles Owned by Utility	% ILEC Ownership	% Diff from 45% ILEC Parity	Poles Billed to ILEC	Adjustm't Rate	ILEC Payment to Utility	ILEC Payment Per Addtl Pole	Cable Make-ready Per Pole	ILEC Payment Per Pole Net M-R	ILEC Payment Per Pole Net M-R Per Ft	Cable Formula Rate
Input	Input	Input	Col(2) - (3)	Col(3) / (1)	45% - Col(5)	Col(6) x(1)	Input	Col (7)*(8)	Col (9)/(4)	Input	Col (10)- (11)	Col(12)/2ft	Input
150,000	89,000	61,000	28,000	40.7%	4.3%	6,500	\$70.00	\$455,000	\$16.25	\$3.46	\$12.79	\$6.40	\$5.96

E X H I B I T 2

Declaration of Harold W. Furchtgott-Roth

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
)
Implementation of Section 224 of the Act;) WC Docket No. 07-245
Amendment of the Commission's Rules and)
Policies Governing Pole Attachments)
)

Declaration of Harold W. Furchtgott-Roth

Executive Summary

Electric utilities and incumbent telephone companies have monopoly control over utility pole distribution systems, the networks of utility poles, ducts, conduits, and rights of way that distribute electricity and telephone services across America. These pole distribution systems are almost certainly natural monopolies even in the absence of regulation that precludes competitive entry. Most local governments restrict or prohibit competitive entry thereby enhancing the monopoly status of pole distribution systems. Congress, the FCC, and courts have found pole distribution systems to be a natural monopoly. Government agencies, including the Commission, cannot create meaningful competition for pole attachment services.

The pole attachment cable rate under Section 224 is not a subsidized rate. Pole attachment rents are not the only payments that cable operators make for pole attachments. Courts do not find subsidies under the Commission's implementation of Section 224. The current cable rate is higher than the marginal cost of adding a cable attachment to a pole and thus is not a subsidy. Public Service Commissions embrace the FCC's cable pole formula and specifically reject raising rates for Internet or VoIP as contrary competition and broadband deployment. There is no evidence that pole attachment rates are subsidized. Utilities do not refer to pole rents as subsidies in their financial filings.

Neither economics nor law requires an adjustment to a "uniform" rate formula for pole attachments. Utilities and cable systems do not enjoy equal rights or make equal use of the pole. The Commission often applies different regulated rates to similar and even identical services. Cable attachments are unusually complex and hardly a candidate for a "uniform" rate formula.

Ultimately, the Commission does not have the foundation to abandon a settled and successful system in favor of a new and uncertain form of rate regulation.

I. INTRODUCTION

A. Qualifications

My name is Harold W. Furchtgott-Roth. Since 2003, I have been president of Furchtgott-Roth Economic Enterprises, an economic consulting firm. I have consulted on a variety of topics, including both regulatory and antitrust matters. I chair the board of Oneida Partners, a wireless communications company. I am on the board of MRV, a publicly traded telecommunications manufacturing company. I serve on several advisory boards.

From June 2001 through March of 2003, I was a visiting fellow at the American Enterprise Institute for Public Policy Research (AEI) in Washington, DC. At AEI, I completed the manuscript for a book, *A Tough Act to Follow: The Telecommunications Act of 1996 and the Separation of Powers*, AEI Press (2006).

I was a commissioner of the Federal Communications Commission (FCC) from November 1997 through the end of May 2001. My statements as a commissioner at the FCC have been cited by federal courts.

I have worked for many years as an economist. From 1995 to 1997, I was chief economist of the House Committee on Commerce where I served as one of the principal staff members helping to draft the Telecommunications Act of 1996.

My academic research concerns economics and regulation. In addition to *A Tough Act to Follow*, I am the coauthor of three books: *Cable TV: Regulation or Competition*, with R.W. Crandall (Washington, DC: The Brookings Institution), 1996; *Economics of A Disaster: The Exxon Valdez Oil Spill*, with B.M. Owen, D.A. Argue, G.J. Hurdle, and G.R. Mosteller (Westport, Connecticut: Quorum Books), 1995; and *International Trade in Computer Software*,

with S.E. Siwek (Westport, Connecticut: Quorum Books), 1993. I am a frequent commenter on matters before the FCC, and daily newspapers, including the *Wall Street Journal*, have published my opinion pieces. I have a weekly column in the business section of the *New York Sun*. I have testified on many occasions before committees of the U.S. Senate and House of Representatives. I received my undergraduate training at MIT, and I received a Ph.D. in economics from Stanford University. My resume is attached as Appendix A.

B. Question

I have been asked by Comcast Corporation to review the economic basis for changing rate regulation for pole attachments in WC Docket No. 07-245.

C. Conclusion

As summarized in the Executive Summary and as discussed in detail below, I conclude that:

- Utilities have monopoly control over distribution poles.
- The pole attachment cable rate under Section 224 is not a subsidized rate;
- Neither economics nor law requires an adjustment to a “uniform” rate formula for pole attachments;
- The Commission does not have the foundation to abandon a settled and successful system in favor of an uncertain form of rate regulation.

II. UTILITIES HAVE MONOPOLY CONTROL OVER DISTRIBUTION POLES

Rate regulation of pole attachments arises from the economic structure of the market (or more accurately, lack of a market) for poles. Pole attachments are offered by pole-owning

“utilities” (investor-owned electric utilities or incumbent telephone companies)¹ to attach the facilities of a third party cable system or competitive telecommunications system to “a pole, duct, conduit, or right-of-way owned or controlled by a utility.”² I will collectively refer to a “pole distribution system” as a system that includes “a pole, duct, conduit, or right-of-way owned or controlled by a utility.”

A. Pole distribution systems are natural monopolies

For much of economic reasoning, a competitive price revealed by firm behavior in a competitive market is a sound principle for pricing. But for pole attachments by third parties to utility poles, these “competitive prices” are neither visible nor available. The usual economic test for a “natural monopoly” is whether one firm can supply an entire market at a lower cost than any combination of more than one firm.³ Economists are usually cautious in describing an industry as a natural monopoly, but one of the classic text books in economics singles out distribution services in a geographic area for telephony, electric, and gas utilities as natural monopolies.⁴ Once a company in a geographic area has acquired the rights of way and deployed poles, conduits, ducts, or other parts of a pole distribution system, the incremental cost of that company serving additional customers in that geographic area is almost certainly lower than the incremental cost of a second pole distribution system company.⁵

¹ Under the federal Pole Act, a “utility” is an investor-owned electric utility or incumbent telephone company: “any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications,” excluding excludes cooperatives, railroads, and the federal government. 47 U.S.C. § 224(a)(1).

² 47 U.S.C. § 224(a)(4).

³ See, e.g., J. Tirole, *The Theory of Industrial Organization*, MIT Press, Cambridge, MA, 1989, at 19-21.

⁴ F.M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally, Chicago, IL, 1970, at 520.

⁵ These findings for the natural monopoly characteristics of distribution services are within a specific geographic area, not globally. For example, because France Telecom has developed a pole distribution system in France does not mean that it can offer pole distribution services at a lower cost than other companies in Germany, much less the United States.

Even where firms may choose to enter the market for offering pole distribution system services, and even if there were some doubt in a geographic area about whether an incumbent firm is a natural monopoly for the provision of pole distribution system services, the substantial costs of entry would deter many potential competitors from entering. These costs include obtaining property, rights of way, pole distribution equipment, installation of that equipment, and maintenance and repair of a pole distribution system.

B. State and municipal regulation of pole distribution systems further enhances monopoly

In most if not all states and municipalities, firms may not easily choose to compete to offer pole distribution services. Not surprisingly, given the disruption to traffic and public conveniences of multiple pole distribution systems, most municipalities prohibit multiple pole distribution systems.

- “The cable television industry has traditionally relied on telephone and power companies to provide space on poles for the attachment of CATV cables. Primarily because of environmental concerns, local governments have prohibited cable operators from constructing their own poles. Accordingly, cable operators are virtually dependent on the telephone and power companies. . . .”⁶
- “Cable television operators are generally prohibited by local governments from constructing their own poles to bring cable service to consumers. This means they must rely on the excess space on poles owned by the power and telephone utilities.”⁷
- “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

⁶ 123 Cong. Rec. 35006 (1977) (statement of Rep. Wirth, sponsor of 1978 Pole Attachment Act.)

⁷ 123 Cong. Rec. 16697 (1977) (statement of Rep. Wirth)

is often no practical alternative to a CATV system operator except to utilize available space on existing poles.”⁸

- “Use is made of existing poles rather than newly placed poles due to the reluctance of most communities, based on environmental considerations, to allow an additional duplicate set of poles to be placed.”⁹
- As a result, the courts have concluded that “construction of systems outside of utility poles and ducts is generally unfeasible.”¹⁰

Prohibitions by government agencies on competing pole distribution systems enhance the monopoly status of incumbent systems.

C. Congress, the FCC and courts have all found pole distribution systems to be a monopoly market.

The conclusion that the provision of pole distribution systems is a monopoly is a repeated finding of Congress, the Commission, and the courts. Consider the following Congressional findings:

- The legislative goal for Congress in enacting the Pole Attachment Act was “to establish a mechanism whereby unfair pole attachment practices may come under review and sanction, and to minimize the effect of unjust or unreasonable pole attachment practices on the wider development of cable television service to the public.”¹¹
- “Due to the local monopoly in ownership or control of poles, . . . [the legislative record indicates] that some utilities have abused their superior bargaining position by

⁸ S. Rep. No. 95-580, at 13 (1977), *reprinted in* 1978 U.S.C.C.A.N 109, 121 (“1977 Senate Report”).

⁹ H.R. Rep. No. 95-721, at 2 (1977).

¹⁰ *General Tel. Co. of Southwest v. United States*, 449 F.2d 846, 851 (5th Cir. 1971)

¹¹ 1977 Senate Report at 14, 1978 U.S.C.C.A.N. at 122.

demanding exorbitant rental fees and other unfair terms in return for the right to lease pole space.”¹²

- “The Pole Attachment Act protects cable and telecommunications attachers from monopoly prices set by utilities that are not necessarily in direct competition with the attachers, although there may be potential for direct competition.”¹³

The Commission and Justice Department have reached similar conclusions:

- Over 35 years ago, in 1971, the Commission explained that “we know from experience that, as a practical matter, a CATV operator desiring to construct his own system must have access to those poles.”¹⁴
- In 1978, the Justice Department cataloged Bell System dominance of pole lines. “The cost of building a separate pole system was prohibitive, and many municipalities simply forbade this alternative.”¹⁵
- In 1978, “Congress sought to constrain the ability of utilities to extract monopoly profits from cable television system operators in need of pole, duct, conduit or right-of-way space for pole attachments.”¹⁶
- In 2001, the Commission found the same is true today: “Nothing in the record demonstrates that the utilities’ monopoly over poles has since changed.”¹⁷
- The Commission echoed the same concept last year: “The purpose of Section 224 of the Communications Act is to ensure that the deployment of communications

¹² *Id.* at 13, 1978 U.S.C.C.A.N. at 121.

¹³ *Rules and Policies Governing Pole Attachments, Implementation of Section 703(e) of the Telecommunications Act of 1996*, Consolidated Partial Order On Reconsideration, FCC 01-170, 16 FCC Rcd 12103, 12117 ¶ 13 (2001) (“*2001 Reconsideration Order*”).

¹⁴ *Better TV, Inc.*, 31 F.C.C.2d 939, 956 (1971).

¹⁵ *United States v. AT&T*, No. 74-1698, Plaintiffs’ First Statement of Contentions and Proof (D.D.C., filed Nov. 1, 1978)

¹⁶ *2001 Reconsideration Order*, 16 FCC Rcd at 12109 ¶ 7.

¹⁷ *Id.* at 12112 ¶ 13.

networks and the development of competition are not impeded by private ownership and control of the scarce infrastructure and rights-of-way that many communications providers must use in order to reach customers.”¹⁸

The courts have reached the same conclusion:

- “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 charge monopoly rents.”¹⁹
- “The Pole Attachments Act, 92 Stat. 35, as amended 47 U.S.C. § 224, was enacted by Congress as a solution to a perceived danger of anticompetitive practices by utilities in connection with cable television service. . . . In response to arguments by cable operators that utility companies were exploiting their monopoly position by engaging in widespread overcharging, Congress in Pole Attachments Act authorized the Federal Communications Commission to fill the gap left by state systems of public utilities regulation.”²⁰
- “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.”²¹

¹⁸ See *Implementation of Section 703(e) of the Telecommunications Act of 1996; Amendment of the Commission’s Rules & Policies Governing Pole Attachments*, Report & Order, FCC 98-20, 13 FCC Rcd 6777, 6780 ¶ 2 n.10 (1998); see also *1977 Senate Report* at 19-20, 1978 U.S.C.C.A.N. 127-28; *Implementation of Section 224 of the Act, Amendment of the Commission’s Rules & Policies Governing Pole Attachments*, Notice of Proposed Rulemaking, FCC 07-187, 22 FCC Rcd 20195, 20225 n.76 (2007) (“Notice”).

¹⁹ *NCTA. v. Gulf Power Co.*, 534 U.S. 327 (2002).

²⁰ *FCC v. Florida Power Corp.*, 480 U.S. 245, 247-48 (1987). See *2001 Reconsideration Order*, 16 FCC Rcd at 12109 ¶ 7 n.35 (citing *1977 Senate Report* at 19-20).

²¹ *Alabama Power Co. v. FCC*, 311 F.3d 1357 (11th Cir. 2002).

D. Government agencies cannot create meaningful competition for pole attachment services

Although government regulation reinforces their monopoly characteristics, pole distribution systems would still be monopolies even without government regulation. Neither the Commission nor any other government agency can circumscribe the natural monopoly characteristics of pole distribution systems and mandate full competition for services from such systems. Indeed, many of the competitive telecommunications sections of the Telecommunications Act of 1996 would have been unnecessary had entry into pole distribution systems been costless or easy.²²

III. THE POLE ATTACHMENT CABLE RATE UNDER SECTION 224 IS NOT A SUBSIDIZED RATE

Although pole rental rates have been regulated under Section 224, the cable rate is not a “subsidized rate ... at the expense of electric consumers” as suggested in the NPRM.²³

A. Pole attachment rents are not the only payments cable operators make for pole attachments

Pole rental is not the only payment that cable operators make to utilities. Cable must first pay utilities “make-ready”—all of the cost needed to rearrange lines, and to replace short poles with taller poles, in order to make room for cable on the pole. These multimillion dollar payments are made up front to cover the incremental costs of attachment, after which periodic rental payments are made over and above as a share of the full cost of the pole.²⁴ The rentals

²² Consider, for example, 47 U.S.C. §§ 251-252.

²³ The Commission seeks comment on “the extent to which the current cable rate formula, whose space factor does not include unusable space, results in a subsidized rate, and, if so, whether cable operators should continue to receive such subsidized pole attachment rate at the expense of electric consumers.” *Notice*, 22 FCC Rcd at 20222-23 ¶ 19.

²⁴ To give a sense of scale, in a recent Commission case, while Alabama Power was seeking to raise pole rent, it admitted that it received “more than a million dollars in make-ready payments from cable company attachers” in the pertinent year. *Alabama Power*, 311 F.3d at 1369. Earlier this year, Georgia Power representatives reported to the January 2007 UTC Conference that their receipts in make-ready in 2007 were \$2.25 million.

which cable operators pay annually thereafter are only the second part of payment, after the marginal costs of the pole attachment have already been covered.

B. Courts do not find subsidies under the Commission's implementation of Section 224

The "subsidy" question raised in the NPRM is surprising because it is identical to the question addressed and answered by the Commission itself and again by the Eleventh Circuit Court of Appeals in *Alabama Power*.²⁵ Rather than find fault with the cable rate, the Commission and the court specifically concluded that the proper regulatory rate for pole attachments was marginal cost, *lower* than the Section 224 cable rate:

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. See *In the Matter of Ala. Cable Telecomm. Ass'n et al. v. Ala. Power Co.*, 16 FCC Rcd.12,209, ¶ 69 n.154 (2001). Indeed, such costs were paid in the present case.

The legal principle is that in takings law, just compensation is determined by the loss to the person whose property is taken. *United States v. Causby*, 328 U.S.256, 261, 66 S. Ct. 1062, 1065-66, 90 L. Ed. 1206 (1946). Put differently, "[t]he question is, What has the owner lost? not, What has the taker gained?" *United States v. Virginia Elec. & Power Co.*, 365 U.S. 624, 635, 81 S. Ct. 784, 792, 5 L.Ed. 2d 838 (1961) (citation omitted). This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better. See generally Dan B. Dobbs, 1 *Law of Remedies* 281 (1993). This legal principle, 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?²⁶

The Eleventh Circuit goes on to explain that marginal cost, a lower cost concept than chosen by the Commission for purposes of Section 224, is sufficient for just compensation

²⁵ *Alabama Power*, 311 F.3d 1357 (11th Cir. 2002).

²⁶ *Id.* at 1369 (footnotes omitted).

except in the case where the utilities can demonstrate that they have alternative users for scarce space willing to pay more:

The possibility of crowding is perhaps more likely in the context of pole space, however, and if crowded, the pole space becomes rivalrous. Indeed, Congress contemplated a scenario in which poles would reach full capacity when it created a statutory exception to the forced-attachment regime. 47 U.S.C. § 224(f)(2). 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.²⁷

It is difficult to construct a subsidy where the utility is being fully and justly compensated. Instead, the Commission and court found that utilities are justly compensated with just marginal cost recovery, not including the additional average cost recovery under Section 224.

In short, 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 (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. While this analysis may create what appears to be an anomaly - a power company whose poles are not "full" can charge only the regulated rate (so long as that rate is above marginal cost), but a power company whose poles are, in fact, full can seek just compensation - this result is in accordance with the economic reality that there is no "lost opportunity" foreclosed by the government unless the two factors are present.²⁸

C. The current cable rate is higher than marginal costs and thus is not a subsidy

Under many forms of price regulation, prices are set based on various concepts of marginal cost. In basic terms, marginal cost means the additional cost of supplying an additional unit of output (in the case of poles, the cost of attaching one more line to a utility pole that would

²⁷ *Id.* at 1370.

²⁸ *Id.* at 1370-71.

not have been incurred but for the attachment). The Commission has adopted such forms of price regulation under many sections of the Act. The current cable pole rate is much higher than the marginal cost of adding a cable attachment to a pole: it covers marginal costs through make-ready, and then pays much more than marginal costs through a rental calculated as a share of average cost of the full pole—including both costs of usable and unusable space. Pole rents are already at the maximum of the statutorily permissible range under Section 224. Moreover, utility pole rents have steadily increased. On its face, it is difficult for the Commission to characterize a rate that is the statutory maximum as a “subsidy” particularly when lower purely marginal cost rates are not characterized as subsidies.

D. Public Service Commissions embrace the FCC’s cable pole formula and specifically reject raising rates for Internet or VoIP as contrary competition and broadband deployment

Public Service Commissions in eighteen states and the District of Columbia regulate pole attachment rates.²⁹ These States PSCs are responsible for pole attachment rates, local rates for utility and telephone customers, and the interests of cable subscribers. If pole attachment rates were a “subsidy” to the cable industry and its customers one might expect states to increase the cable rate dramatically to remove the subsidy. In practice, the vast majority of states that regulate pole attachments have moved from early “home grown” pole rent approaches to embrace the FCC cable rate formula.³⁰

²⁹ See Notice, 22 FCC Rcd at 20196 n.6.

³⁰ For example, New York found that following the cable formula would “promote greater certainty for service providers and better conditions for telecommunications competition,” and, at the same time, “stimulate economic development.” *Certain Pole Attachment Issues Which Arose in Case No. 94-C-0095*, 1997 N.Y. PUC LEXIS 364, at *9-10 (June 17, 1997). Other examples include *Consumers Power Co., Detroit Edison Co., Setting Just & Reasonable Rates for Attachments to Utility Poles, Ducts & Conduits, Case Nos. U-010741, U-010816, U-010831*, Opinion & Order, 1997 Mich. PSC LEXIS 26, at *27 (Feb. 11, 1997), *aff’d*, *Detroit Edison Co. v. Michigan Public Serv. Comm’n*, 1998 Mich. App. LEXIS 832 (Nov. 24, 1998); *Order Instituting Rulemaking on the Commission’s Own Motion Into Competition for 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 v. Boston Edison Co.*, Mass. Docket No. D.T.E. 97-82

Moreover, State PSCs have specifically rejected the concept of applying higher cable pole attachment rates to the deployment of new cable modem and/or VoIP services, as unjustified by cost and contrary to interests in competition and broadband deployment.

California found that there is “no difference in the physical connection to the poles” and that applying the cable rate to all services “promotes the incentive for facilities-based local exchange competition through the expansion of existing cable services.”

There is generally no difference in the physical connection to the poles or conduits attributable to the particular service involved. In many cases, a cable operator may not be able to delineate exactly what particular services are being provided to a customer at a given time because the customer can use the connection for various services, depending on the equipment attached to the connection at the customer’s premises... Moreover, such an approach promotes the incentive for facilities-based local exchange competition through the expansion of existing cable services.³¹

New York found that raising the cable rate “would undermine efforts to encourage facilities-based competition and to attract business in New York.”

To allow increased pole attachment rates at this time, when competition and the number of attachers has not developed as previously contemplated, is contrary to the public interest under PSL §119-a, in that it would undermine efforts to encourage facilities-based competition and to attract business in New York.³²

(1998); *A/R Cable Servs. v. Massachusetts Elec. Co.*, Mass. Docket No. D.T.E. 98-52 (1998). Other certified states that follow the FCC approach are: Connecticut, Idaho, Illinois, New Hampshire, New Jersey, Ohio, Rhode Island, Utah and Washington.

³¹ See *Order Instituting Rulemaking on the Commission’s Own Motion Into Competition for Local Exchange Service*, R.95-04-043, I.95-04-044, Decision 98-10-058, 1998 Cal. PUC LEXIS 879 (Oct. 22, 1998) (declining to adopt the “telecommunications” surcharge).

³² *Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation’s Proposed Tariff Filing to Revise the Annual Rental Charges for Cable Television Pole Attachments and to Establish a Pole Attachment Rental Rate for Competitive Local Exchange Companies*, Order Directing Utilities to Cancel Tariffs, Case 01-E-0026, 2002 N.Y. PUC LEXIS 14, at *4 (Jan. 15, 2002).

Alaska issued new pole regulations adopting the FCC cable formula for both cable and telecommunications attachments, concluding that “the CATV formula . . . provides the right balance given the significant power and control of the pole owner over its facilities;” and “that changing the formula to increase the revenues to the pole owner may inadvertently increase overall costs to consumers.”³³

The Connecticut Department of Public Utility Control (DPUC) reached the same conclusion in a matter involving United Illuminating Company (UI).³⁴ The DPUC quoted and agreed with the U.S. Supreme Court, which had refused a utility request to raise pole rents when cable used its lines to deliver high speed data services. The DPUC held the utilities to their admission that they suffered “no additional cost burden;” and found no adverse effect on ratepayers to use the cable formula.

No one disputes that a cable attached by a cable television company, which provides only cable television service, is an attachment “by a cable television system.” If one day its cable provides high-speed Internet access, in add-on to cable television service, the cable does not cease, at that instant, to be an attachment “by a cable television system.” The addition of a service does not change the character of the attaching entity - the entity the attachment is “by.” And this is what matters under the statute. National Cable & Telecommunications Association, Inc. v. Gulf Power Co., et al., 122 S. Ct 782 at 786, 534 U.S. 327, 151 L.Ed.2d 794 (2002).³⁵

Regarding the cost and cable subsidization issue, UI had put forth the proposition that it sought to apply the telecommunications cost-based formula to alleviate the burden on its

³³ *Consideration of Rules Governing Joint Use of Utility Facilities & Amending Joint-Use Regulations Adopted Under 3 AAC 52.900 – 3 AAC 52.940*, Order Adopting Regulations, 2002 Alas. PUC LEXIS 489, at *6-7 (Oct. 2, 2002).

³⁴ *Petition of the United Illuminating Company For A Declaratory Ruling Regarding Availability Of Cable Tariff Rate For Pole Attachments By Cable Systems Providing Telecommunications Services & Internet Access*, Docket No. 05-06-01, Decision, 2005 Conn. PUC LEXIS 295, at *8-13 (Dec. 14, 2005) (“*Connecticut Rate Order*”).

³⁵ *Id.* at *10.

ratepayers by obtaining a fair and reasonable rate for attachments providing additional services not covered by the cable attachment rate.³⁶ However, the record did not clearly reveal that the price differential between the cable and telecommunication attachment fee was due to any real reflection of increased costs to UI and its ratepayers. Indeed, UI's expert witness testified that there is no additional cost burden.³⁷

E. There is no evidence that pole attachment rentals are subsidized

State PSCs regulate the pole distribution networks of utilities. For the very long history of public utility commission rate making, the investment costs, depreciation expense, expenses of maintenance and administration, taxes and rate of return for poles have been covered through the rates for electric and telephone service. Utility operations have continued successfully even in states which have migrated to various forms of deregulation or price caps.

If pole attachment rates were “subsidies” detracting from the primary purpose of the utility pole networks, one would expect these State PSCs to react with dramatic differences in pole rents—which they refuse to adopt. Moreover, if in “FCC” States the cable rate were a subsidy, one would expect to find a market reaction to such “subsidies.” One possible market reaction would be underinvestment in pole networks. But there is no evidence of underinvestment by utilities in pole networks. Another possible reaction would be for utilities to sell pole network assets to unregulated third parties. Utilities, rather than third parties, continue to own pole distribution networks. Moreover, pole rentals are not handicapping ILEC

³⁶ UI witness Reed: “In the calculations that we’ve done recently, we feel that the rate is far understated as to what it costs us and what the fair share for an attachment should be and that it is not covering the fair share of the costs of that attachment on our poles.” *Id.*, p. 19; Reply Brief, 10-3-05, pp. 2, 10, 11.

³⁷ Q. (McDermott) What about Mr. Glist’s argument that offering telecommunication services through the same cable on the pole creates no additional burden on the cable or the pole, do you agree with that?

A. (Kowalski) Yes, I do. . . . [I]t’s not a question of a burden on the pole; it’s a question of, in this case, what kind of service you’re providing. Tr, 9-12-05, pp. 116-117.

deployment of broadband and video services. Verizon has surpassed 1 million video customers.³⁸ AT&T reports 231,000, growing at 10,000/week.³⁹ There is no evidence that utilities are suffering from any subsidized pole attachment rents.

F. Utilities do not refer to pole rents as subsidies in their financial filings.

In final corroboration of the fact that cable pole rents are not subsidies, the utilities themselves do not appear to report pole rentals to be a material problem in their financial statements. I have reviewed the Form 10-Ks submitted to the Securities and Exchange Commission in 2007 by a sample of 35 publicly-traded electric utilities⁴⁰ as well as the three largest telephone companies with pole distribution networks.⁴¹ Of the 35 electric utility Form 10-Ks, few mention pole attachments at all, and then only in passing usually with respect to “other” sources of revenue. None lists pole attachments as a separate line item either for receipts or expenses. It is reasonable to infer that pole attachments are not represented to investors as of concern to utilities.

None of the Form 10-Ks submitted by electric utilities mentions pole attachments as “subsidization” to other firms, and none even mentions the cable industry or the Federal Communications Commission. The same 10-Ks mention regulatory issues before the Federal Energy Regulatory Commission and other regulatory bodies, but not pole attachments before the

³⁸ News Release, Verizon Caps Successful Year With Strong 4Q Results (Jan. 28, 2008), <http://newscenter.verizon.com/press-releases/verizon/2008/verizon-caps-successful-year.html> (943,000 total FiOS TV customers at year-end; Verizon now has more than 1 million FiOS TV customers.)

³⁹ AT&T U-verse Media Kit, <http://www.att.com/gen/press-room?pid=5838> (231,000 U-verse TV subscribers in service, as of end of 4Q07 and approximately 12,000 new customers installed per week as of mid-December 2007).

⁴⁰ I reviewed the Form 10-Ks for the following electric utilities: Allegheny Power, American Electric Power, Black Hills Corporation, Central Vermont, CLECO, Constellation Energy, Dominion Resources, DTE Energy, Duke Energy, Dynegy, Edison International, El Paso Electric, Empire District Electric, Entergy, FirstEnergy Corp., FPL Group, Great Plains Energy, Hawaiian Electric, IDA Corp., NRG Energy, NSTAR, OGE Energy, Otter Tail Corp, PEPCO Holdings, Pinnacle West Capital, Portland General Electric, PPL Corp., Progress Energy, Puget Energy, Reliant Energy, Southern Company, TECO Energy, UIL Holdings, Unisource Energy, and Xcel Energy.

⁴¹ I reviewed the Form 10-Ks for AT&T, Qwest, and Verizon.

FCC. Whatever the claims of “subsidization” that are being presented to the Commission, the major utility companies do not view pole attachments as sufficiently material to report any issue to investors.

In their Form 10-Ks, none of the major telephone companies mentions pole attachments at all, much less in the context of specific regulatory proceedings. Again, it is reasonable to infer that any “subsidization” associated with pole attachments is not viewed by the major telephone companies as sufficiently material to report to investors.

IV. NEITHER ECONOMICS NOR LAW REQUIRES AN ADJUSTMENT TO A “UNIFORM” RATE FORMULA FOR POLE ATTACHMENTS

The NPRM asks several questions regarding uniform rate structure and tentatively concludes that “all categories of providers should pay the same pole attachment rate for all attachments used for broadband Internet access service.”⁴² Although there is a facial simplicity to the “same” or “uniform” rate, such an outcome is determined neither by economics nor law.

A. Incumbent telephone companies and cable systems do not enjoy equal rights or make equal use of the pole

The rights and responsibilities of third party cable attachers differ considerably from the rights of incumbent telephone companies. Cable attachers pay millions for all of the marginal costs necessary to either rearrange existing poles or to build poles tall enough to accommodate cable attachments. The cable operator then pays rent for a limited and subordinate right to a foot of surplus space that displaces no one and precludes no competing service. By contrast, incumbent telephone companies use more space for more demanding purposes. They have two or more feet of space for multiple attachments, an ownership right to build heavier and more lines on a priority basis when and where they wish. They use these rights to add multiple lines (like

⁴² *Notice*, 22 FCC Rcd at 20209 ¶ 36. *See also id.* at 20196 ¶ 3, 20206 ¶ 26.

FiOS) to poles.⁴³ There is no engineering or economic basis for treating the rights of incumbent telephone companies and the rights of cable attachers as equivalent.

B. The Commission often applies different regulated rates to similar and even identical services.

In competitive markets, prices for goods and services tend towards *marginal costs*, (which are already covered in make-ready pole payments). In many competitive industries, even marginal costs vary. It is possible that no two passengers on an airliner, or guests at a hotel, or renters at an auto rental site will pay exactly the same rate.

In regulated industries, the Commission often prescribes non-uniform rates for the same service with the same physical cost structure. For example, business users usually pay higher rates than residential customers for similar if not identical telecommunications services. Termination rates paid by carriers for international calls are higher than those for interstate calls which in turn are higher than those for local calls. Special access rates for a carrier within a metropolitan area can vary widely. Some carriers charge access rates and special access rates based on rate-of-return regulation; others are under price caps; and many carriers charge different rates in different jurisdictions with no clear differences in cost structures. Yet for these services and others, physical costs may be similar if not the same both across carriers and customer classes. In all of these contexts, the Commission has been sensitive to the enormous complexity of rates in complex systems. It has not simply unwound intercarrier compensation by fiat, much less has it replaced it with a “uniform” rate formula.

⁴³ See Report of Patricia D. Kravtin in WC Docket No. 07-245, March 7, 2008.

C. Pole attachments systems are far more complex than the NPRM suggests

Pole attachments are complex, certainly more complex than the *Notice* suggests. A few of the salient features of pole attachments are as follows:

- Pole rents are paid over and above the make-ready payments that cover marginal costs;
- The rights and responsibilities of attaching parties differ from those of pole owners;
- Electric and telephone utilities frequently have joint ownership or use agreements under which each agrees in advance to make its poles available for attachments by the other, guaranty each other a certain relative proportion of ownership and a "normal" height sufficient to fit the attachments of the other, sometimes address how pole rentals are to be shared, and sometimes provide for payments from one to the other. There are many varieties of these joint ownership and use agreements in place today, and regional variations in certain terms and in the level of compliance.
- State PSCs are charged with resolving differences among such utilities—so that if a telephone company is unable to resolve a joint use issue with a power company, the PSC will. By limiting “pole attachments” to cable systems and non-incumbent telecommunications systems,⁴⁴ Congress clearly took those relations away from FCC, and reinforced it with reverse preemption in Section 224.⁴⁵
- The state regulatory accounting treatment of pole rental revenues from third parties—for example, whether and how much such pole rental revenue is applied against the revenue requirements on which utility rates are set and whether utility rates are capped regardless of changes in such pole rental revenues—vary from state to state and utility to utility.

The PSCs that are responsible for pole attachment rates, local rates for utility and

⁴⁴ 47 U.S.C. § 224(a)(4).

⁴⁵ 47 U.S.C. § 224(c).

telephone customers, and the interests of cable subscribers, embrace the FCC cable rate formula and have specifically rejected proposals to apply a higher cable pole attachment rate to the deployment of new cable modem and/or VoIP services over cable lines.

V. THE COMMISSION DOES NOT HAVE THE NECESSARY FOUNDATION TO ABANDON A SETTLED AND SUCCESSFUL SYSTEM IN FAVOR OF AN UNCERTAIN FORM OF RATE REGULATION

Initially, the Commission must take many months if not years to develop a rate structure for broadband pole attachments that can make better sense than the present system—and it may well lack the authority to do so in many critical areas. There is no obvious or natural economic rate to apply, other than the marginal costs that the Act and courts have endorsed. Disputes will arise as not all parties are likely to agree to the rate structure, much less to its specific application. Such a process would repeat the Commission’s experiences with the selection of the TELRIC cost model for unbundled network elements⁴⁶ or the high-cost model for large carriers in the Universal Service Fund.⁴⁷ The process to select a model invariably is contested, and the model ultimately chosen often does not satisfy many parties. Court challenges can linger for years.⁴⁸

Moreover, if the Commission were to find that broadband services under Section 224 should be governed by “uniform” rate structures, the Commission would almost certainly be challenged in court for the glaring absence of such “uniform” rates or rate structures under the

⁴⁶ See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report & Order, FCC 96-325, 11 FCC Rcd 15499, 15812-929 ¶¶ 618-862 (1996).

⁴⁷ See *Access Charge Reform*, Sixth Report & Order in CC Docket No. 96-262 and 94-1, Report & Order in CC Docket No. 99-249, and Eleventh Report & Order in CC Docket No. 96-45, FCC 00-193, 15 FCC Rcd 12962 (2000).

⁴⁸ *Qwest Commc’ns v. FCC*, 398 F.3d 1222 (10th Cir. 2005).

many other sections of the Communications Act that also include concepts of “nondiscrimination.”

Even if the Commission were finally to adopt and to defend a uniform rate structure for broadband services, the Commission would then be caught in endless and tedious allocation determinations between broadband and other services on pole attachments. Few pole attachments are purely broadband. What part of the pole attachment receives the broadband rate versus other rates? The Commission must again take months if not years to write allocation rules to fairly assess a rate when only a fraction of customers use a fraction of capacity during a fraction of time for broadband services like VOIP, rather than for video. Further months and years will be required to make determinations for individual utilities. All of these decisions would again be subject to judicial review.

The administration of this process will be costly and lead to years of uncertainty not only to the Commission but also to both utilities offering pole services and the entities that lease pole attachment services.

The Commission has two choices. It can retain its current rules for rates for pole attachments which have consistently been upheld by the courts and which have elicited no complaints from utilities to their shareholders or the Securities and Exchange Commission. Or the Commission can engage in an endless process of constructing regulated rates and then engaging in years of litigation—costly both for itself and private parties—with uncertain legal outcomes all for the purpose of moving from one regulated rate structure to another of doubtful value or completeness. I have seen no evidence that the Commission has a sound basis for abandoning the current system. Indeed, in my opinion all available evidence supports keeping the current system.

I declare under penalty of perjury that the foregoing is true and correct.

Executed: March 5, 2008

A handwritten signature in black ink, reading "Harold W. Furchtgott-Roth", written over a horizontal line.

Harold W. Furchtgott-Roth

EXHIBIT 3

Pole Safety Issues

Exhibit 3: Pole Safety Issues

Facilities on poles are constantly affected by environmental forces that cause those facilities to require maintenance and repair on a routine basis. All attachers-- utilities, cable, CLECs and others-- are impacted by this reality and maintain work crews to monitor plant and to repair instances where plant has been damaged or where safety code issues arise. For the most part, this process is carried out in the ordinary course of business without controversy and with reasonable cooperation by field personnel for utilities and attachers alike. This reflects the common interest all have in maintaining safe and reliable plant.

The *Notice* invites comment regarding the “practices of attachers that have the potential to adversely impact the safety and reliability of an integral component of our nation’s critical infrastructure, our electric power system.”¹ The premise that *attachers* are the chief source of unsafe pole attachment practices that are placing the electric system at risk is incorrect. Utilities periodically make such charges in an effort to have regulators shift repair responsibilities (and costs) to attachers or to impose other discriminatory and burdensome requirements on attachers. As noted in the Comments,² such charges were leveled by Gulf Power in a recent case that went before an Administrative Law Judge at the Commission. Notably, as further addressed below, when exposed to cross examination under oath the charges were exposed as unsubstantiated and simply scare tactics.

In the Gulf Power proceeding, the utility’s own witness, Mr. Bowen, testified under oath that he visited a particular pole (pictured below) and concluded that:

...this is an example of the lengths to which some companies will go to avoid make-ready and their contractual responsibilities on crowded poles. This pole has numerous crowding

¹ *Notice* at 38.

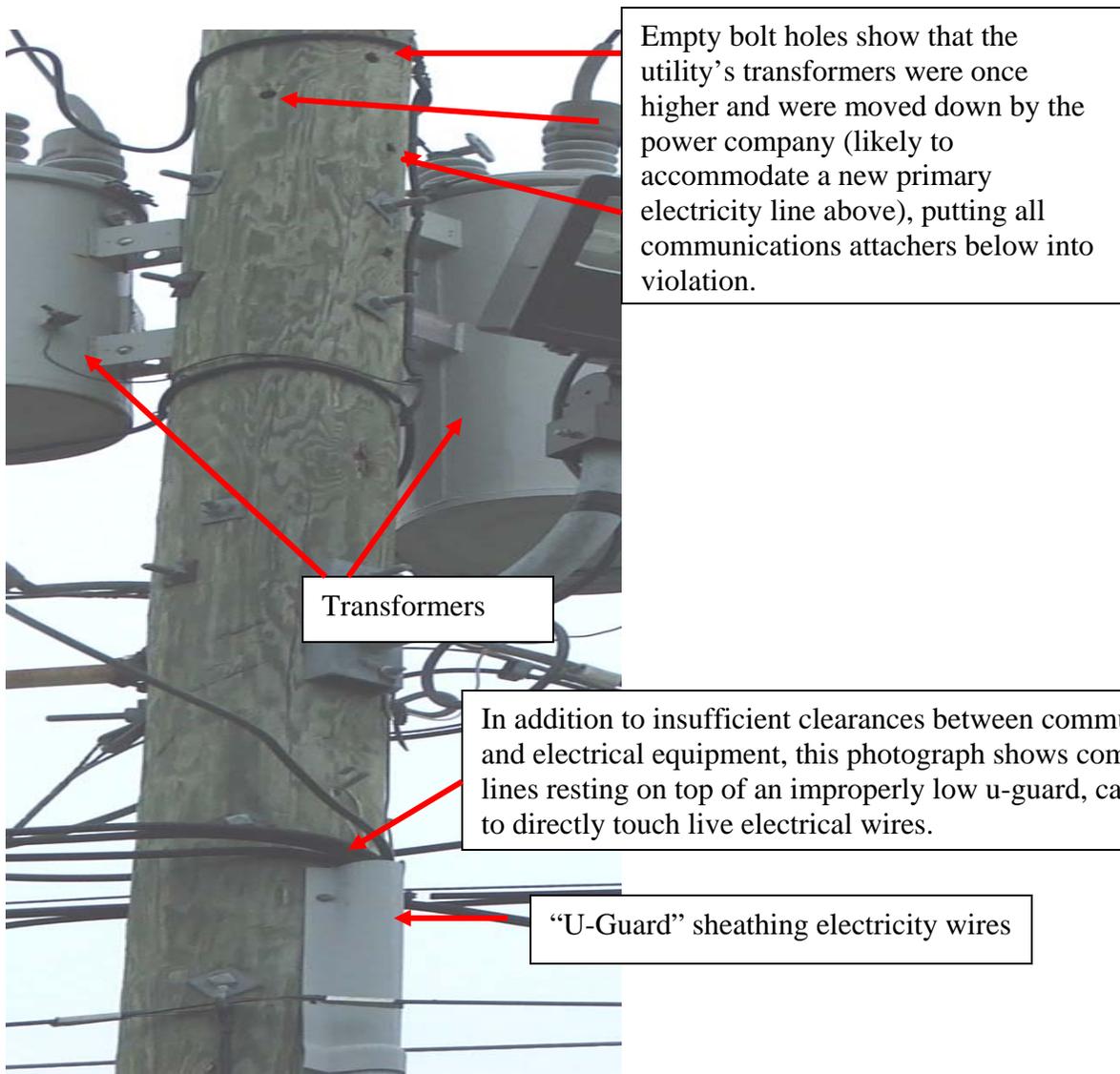
² Comments at n.86.

and/or safety clearance violations that must be fixed by changing the pole out to a taller pole.¹



However, after singling out this particular pole as a good example of improper safety practices by attachers, when cross-examined with respect to the pole pictured above (again under oath) Mr. Bowen testified that it was “possible” looking at shadings, riser shields and old bolt holes with washer indentations on the same pole viewed from close up (pictured below), that Gulf Power had moved its electric facilities out of the electric space and into the safety space and communications space and caused the violations complained of, and, more importantly, that it would have been Gulf’s obligation to rearrange or change-out to bring it back into compliance.³

³ See *Florida Cable Telecommunications Association v. Gulf Power Company*, EB 04-381, Bowen Cross, April 25, 2006, Tr., pp. 1066-1076 (decided by FCC Chief ALJ, January 31, 2007). Attachment 2 to this Exhibit includes a copy of the relevant pages from the transcript of Gulf Power’s witness’s cross-examination.



Despite the “conventional wisdom” that utilities have attempted for decades to establish, when safety issues are examined, frequently one of the utility attachers actually caused the violation. The Commission has issued a number of decisions where utility charges of rampant attacher safety violations have been considered and rejected or found to be overstated.⁴

⁴ *Cable Television Ass'n of Georgia v. Georgia Power Company*, 18 FCC Rcd 16333, ¶ 12 (rel. August 8, 2003) (“...Georgia Power cannot point to definitively to a single incident of property damage or personal injury caused by one of the Cable Operators.”); *See also Knology, Inc., v. Georgia Power Company*, 18 FCC Rcd 24615, ¶ 44 (rel. November 20, 2003) (“It is reasonable to conclude that pre-existing safety violations existed on poles that did not require change-out to the same degree as they existed on poles that did require change-out.”);

To properly consider the safety concerns raised in the *Notice*, the Commission must be fully aware of the routine violations caused by telephone and electric utilities, that all too often place not only the infrastructure at risk but also endanger the workers of all attachers on the poles. For instance, as Verizon has deployed FiOS in Maryland over the past 3 years in the Baltimore, Maryland area, it has caused many thousands of safety hazards on poles jointly owned by Verizon and Baltimore Gas & Electric. These violations have occurred (and continue) despite regular objections from Comcast to representatives of both utilities.⁵ While the violations implicate numerous NESC rules, some of Verizon's more routine unsafe practices are illustrated herein:⁶

- Verizon attachments are installed below minimum clearance levels. Attachment 1, Photographs 1 and 2.
- Verizon straps its lines to Comcast attachments and places fiber in contact with Comcast node equipment, creating additional violations. Attachment 1 Photographs 3 and 4.
- New FiOS attachments are often improperly strung "banjo tight" in violation of the NESC. These FiOS attachments create excessive pole loading due to improper tension from banjo-tight stringing. This practice also causes Verizon's plant to violate clearance requirements from other bolted lines and to even touch Comcast's properly sagged wires at mid-span. Attachment 1, Photographs 5 to 21.

⁵ Verizon's failure to follow NESC standards on poles during its FiOS build is of major concern but was only one unsafe practice that disrupted Comcast's facilities. Verizon's Maryland FiOS build also failed to follow NESC practices for underground construction. Verizon's construction crews routinely ignored the NESC prescribed separations of buried phone, cable, and electric wires and instead would dig holes directly over Comcast's wires instead of its own as required, frequently digging too deeply and cutting through Comcast's cables instead of risking damage to Verizon's own facilities from their own mistakes. See "Utilities Cry Foul Over Verizon Dig: Line Damage Adds to Feud With Cable Firms," Washington Post, Page D01 (October 19, 2005).

⁶ Ironically, many of these violations are made possible due to Verizon's more superior pole rights as compared to cable. As a joint owner, Verizon makes no applications before it installs its FIOS plant and therefore often proceeds with construction without coordinating with any other parties on the pole, performing any makeready or providing any notice that facilities have been installed. See Declaration of John Eichhorn, attached hereto as Attachment 3.

- Verizon permits surplus inner-duct to dangle to the ground creating safety hazards for pedestrians and other attachers. Attachment 1, Photograph 22.
- Verizon's multiple heavy attachments and associated electronics place a significant load on the poles. Attachment 1, Photographs 23 to 26.
- In some cases, Verizon will use Comcast's bolt hole on the pole for their own attachment and, in the process, move Comcast's facilities higher on the pole, closer to the power lines and therefore into violation with the NESC. Attachment 1, Photographs 25 and 26.

Electric utilities are also serious offenders. As illustrated by the *FCTA v. Gulf Power* deposition described above, often electric utilities will perform modifications to electrical equipment on a pole and will not bother to either rearrange the communications wires or install a taller pole to accommodate their new electrical equipment to comply with either the NESC or the utility's own safety standards.

- Electric utilities install transformers after other compliant attachments are in place and create clearance violations by placing them too close to other attachers. Attachment 1, Photographs 27 and 28.
- Electric utilities frequently fail to properly install riser shields (which cover electrical wires running up and down the length of the pole vertically) to the proper height, causing an NESC violation due to proximity between communications conductors and exposed electricity lines. Attachment 1, Photographs 27 to 30.
- Utilities will also improperly string secondary power lines, over-sagging them so that they drop into the safety space and communications space posing safety hazards to communications attachments. Attachment 1, Photograph 31.

- Electric utilities overlash their own power feeder lines to communications lines of other attachers. Attachment 1, Photograph 32.
- Electric utilities will undertake makeshift solutions to work around communications attachments without properly rearranging those lines when re-engineering their poles, often leaving the communications attachments in a hazardous condition. Attachment 1, Photograph 33.

Finally, many safety violations are caused by the acts of local government attachers, including school districts and cities installing street lights, fiber, or other facilities. For instance:

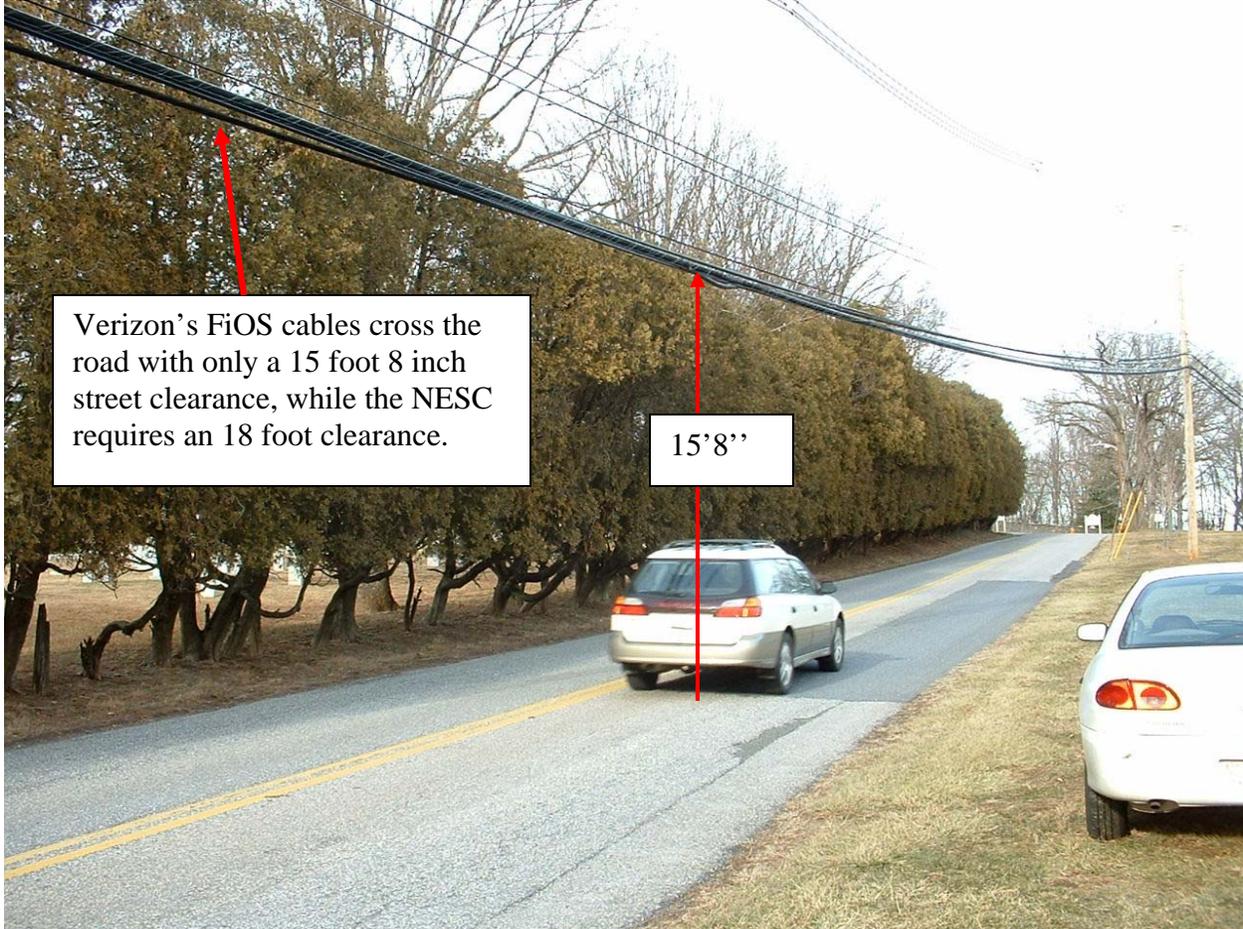
- Cities will install their fiber optics in the safety space (the space between cable attachments and power where communications workers can perform maintenance safely) too close to power equipment and wires. Attachment 1, Photographs 34 and 35.
- Electric wiring for city street lights is improperly installed and lashed to Comcast's wires, risking damage to Comcast's plant. Attachment 1, Photographs 36.
- Municipalities also improperly string attachments without proper sagging and clearances, creating NESC violations. Photograph 37.
- Communications facilities (fiber) for school districts are installed out of compliance with the NESC (with inadequate clearances). As Comcast experienced in Pennsylvania, these municipal projects often require make-ready construction work to accommodate the new municipal facilities, yet utilities have attempted to bill to pre-existing compliant attachers for this work. Attachment 1, Photographs 38 to 41.

Representative photographs illustrating these common scenarios follow in Attachment 1.

Photograph 1 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

212 Saint Thomas Lane, Poles No. 87364 & 199131.



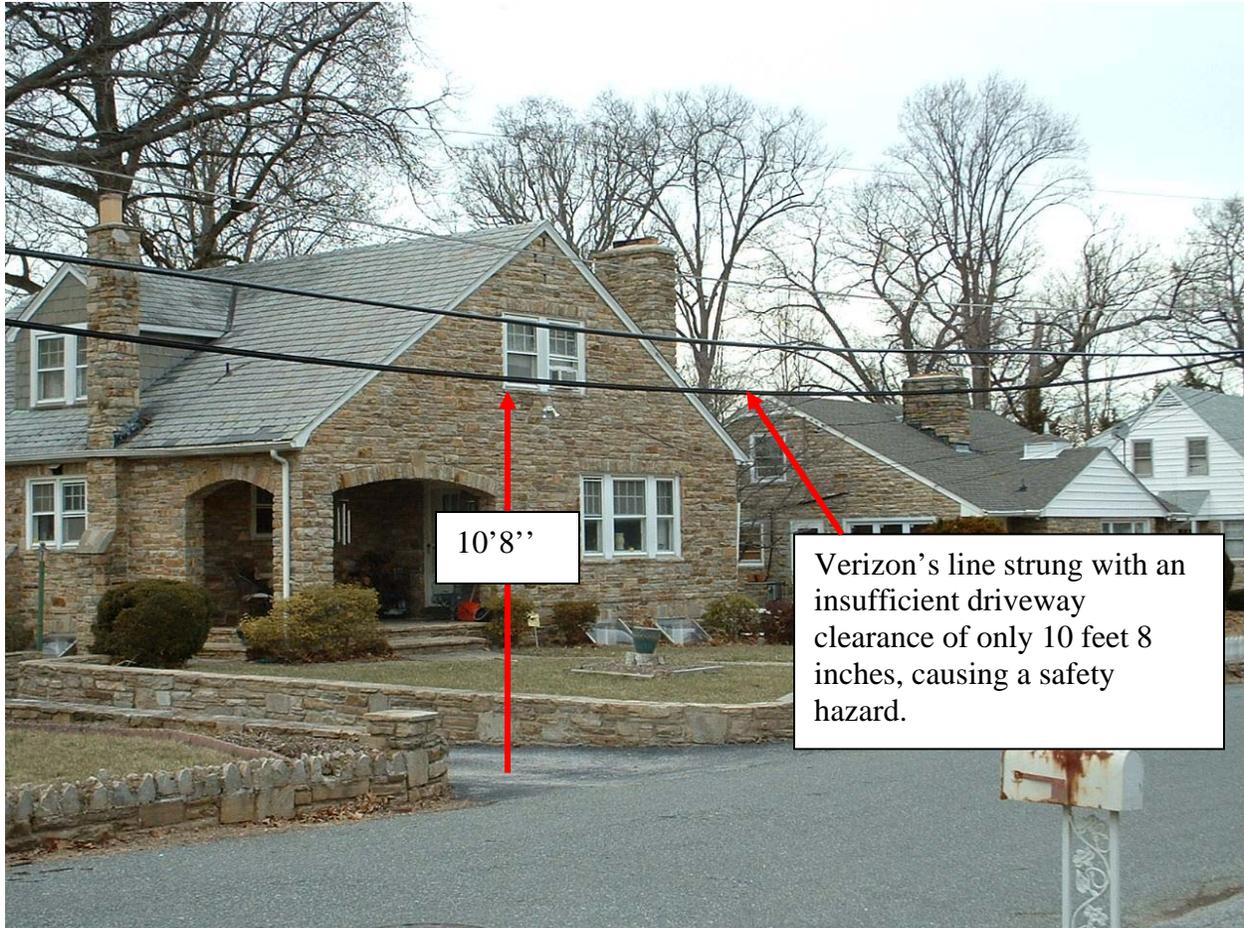
Verizon's FiOS cables cross the road with only a 15 foot 8 inch street clearance, while the NESC requires an 18 foot clearance.

15'8"

Photograph 2 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

3502 Saint James Road, Poles 146153 and 149109.



Photograph 3 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Dundalk Area

Avon Beach Road



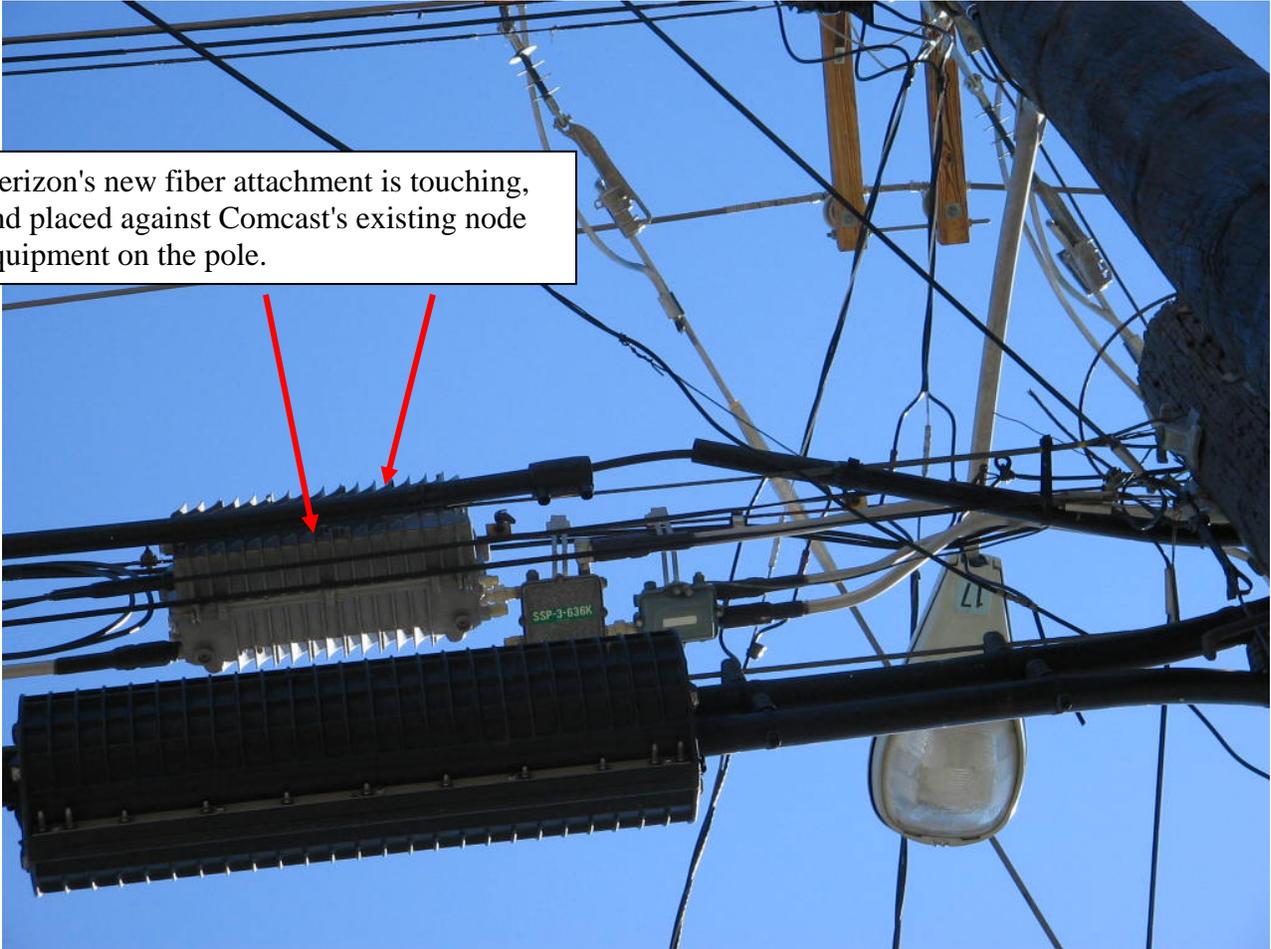
Here Verizon has illegally strapped its inner-duct cable to Comcast's aerial wire during its FIOS construction, a clear NESC violation.

Photograph 4 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Dundalk Area

Avon Beach Road

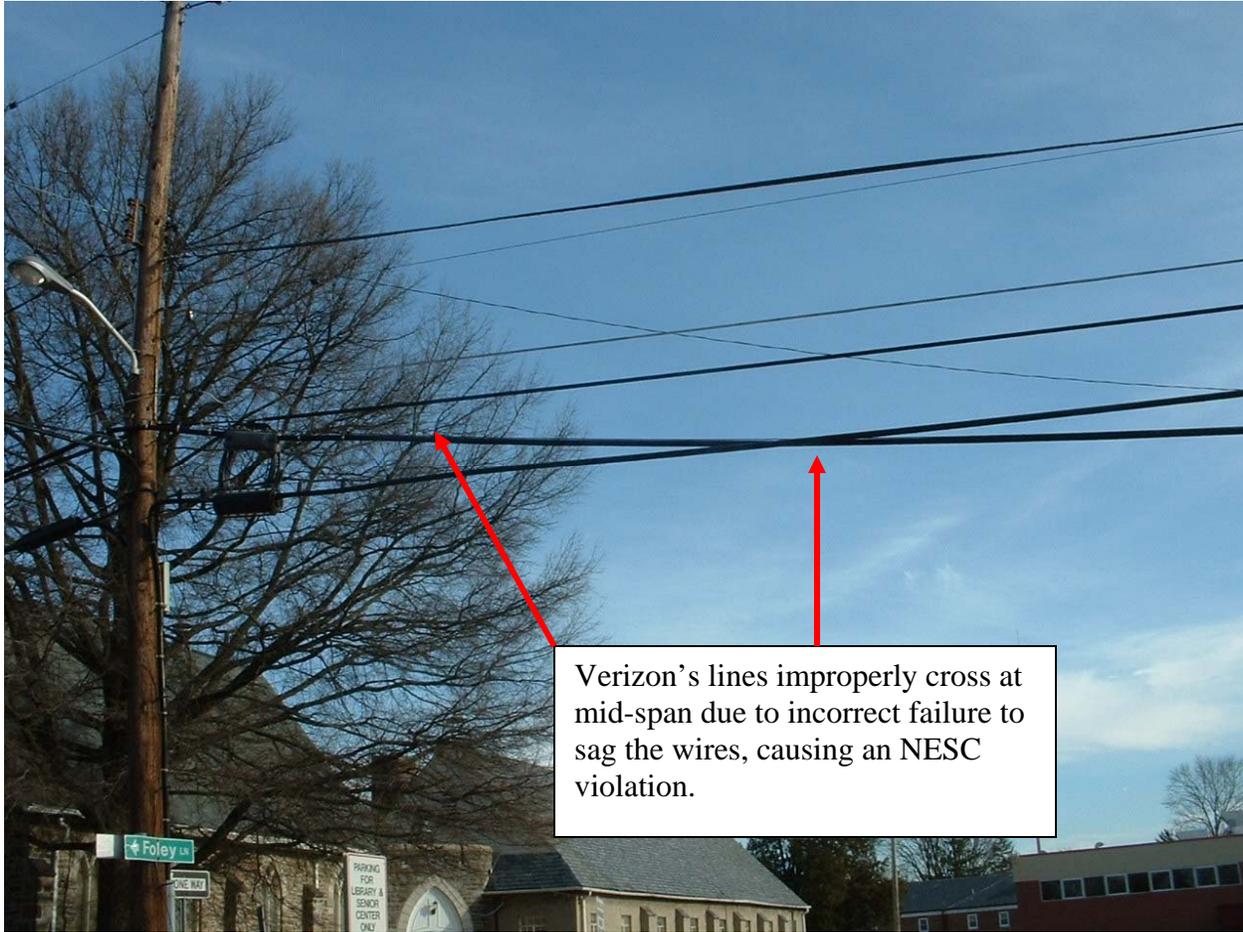
Verizon's new fiber attachment is touching, and placed against Comcast's existing node equipment on the pole.



Photograph 5 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

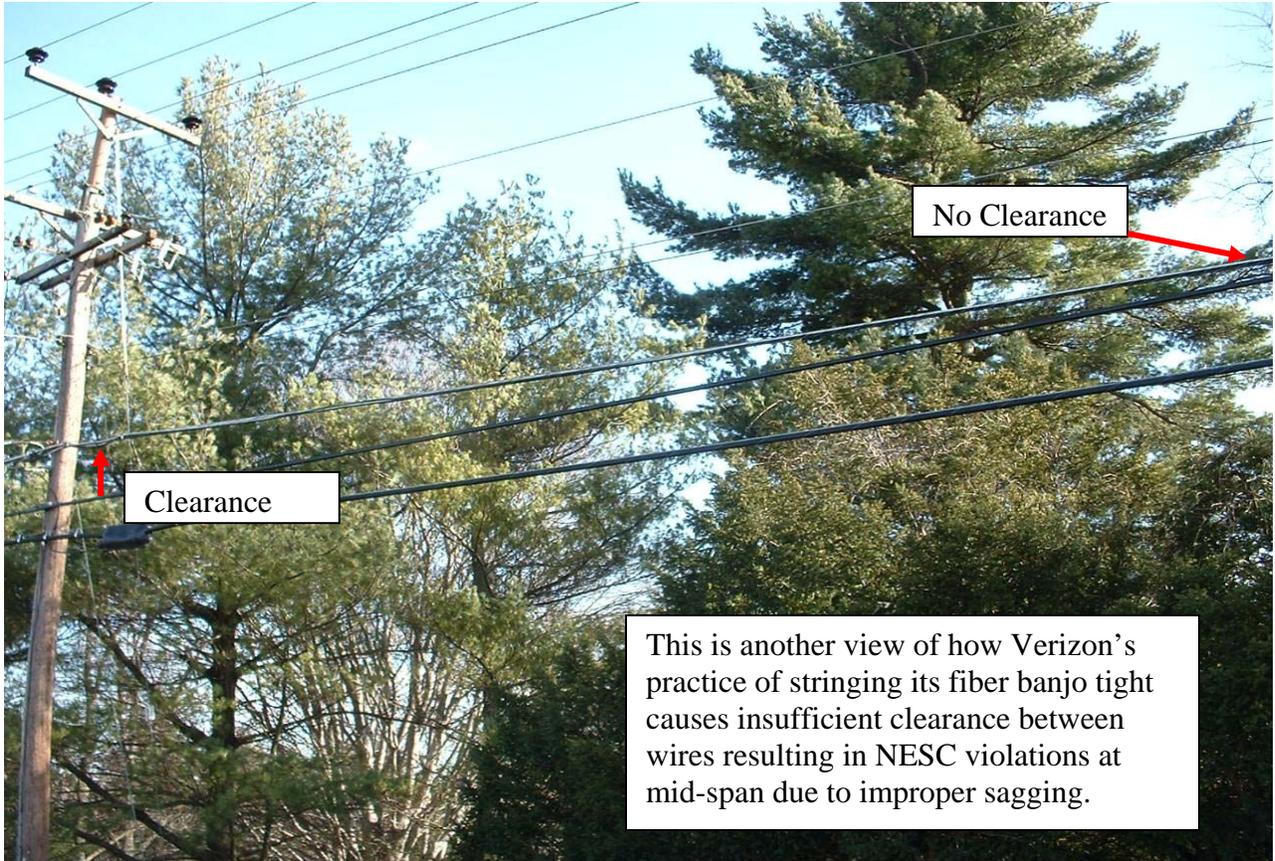
Intersection of Walker Avenue and Foley Lane, Verizon Pole No. 817661.



Photograph 6 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

Intersection of Old Ct. Road and Enclave, poles VZ42, 465352, VZ41.



Photograph 7 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

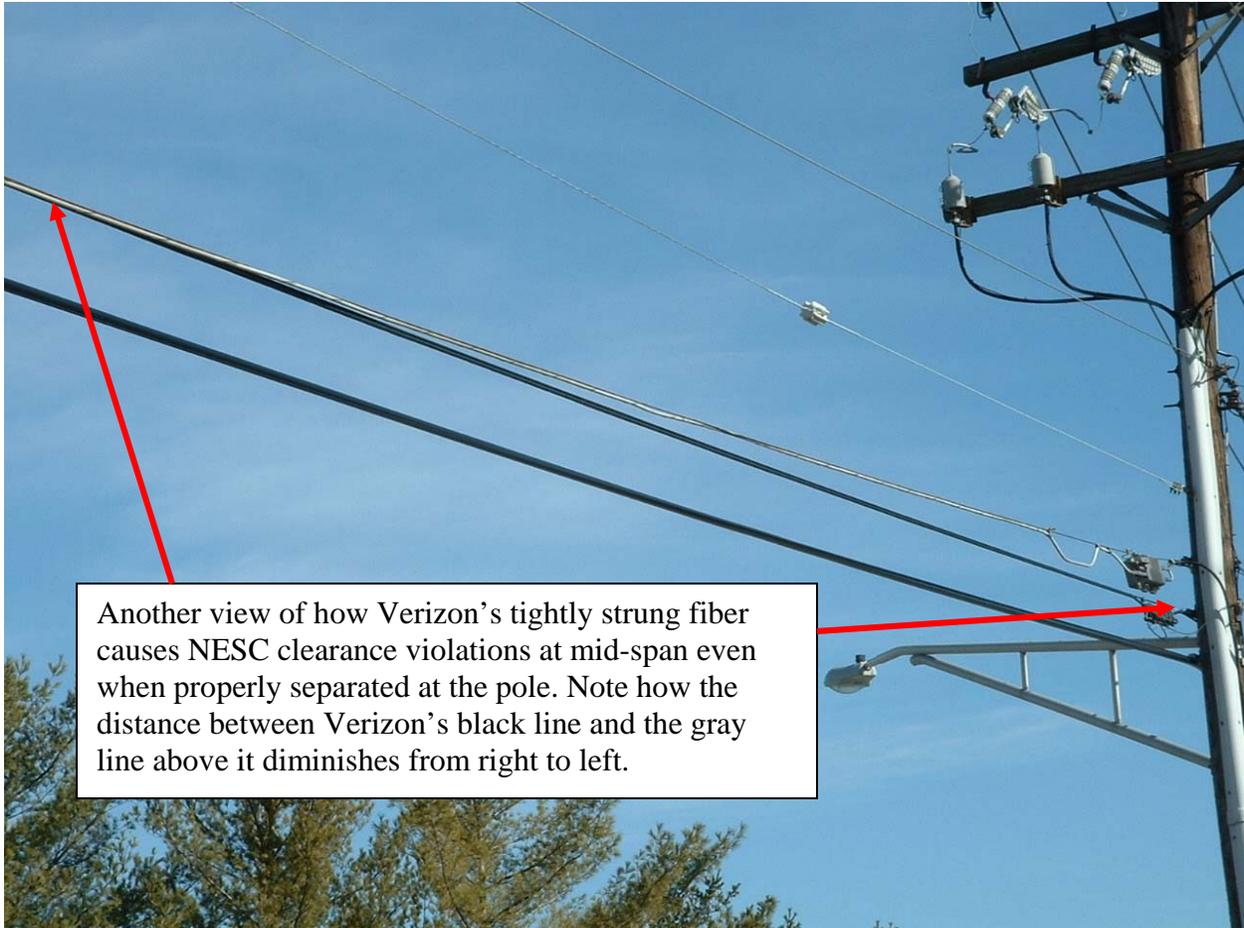
Intersection of Old Ct. Road and Enclave, poles VZ42, 465352, VZ41.



Photograph 8 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

Near intersection of Galloway Avenue and Greenside, poles 46373 and 46372.



Photograph 9 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

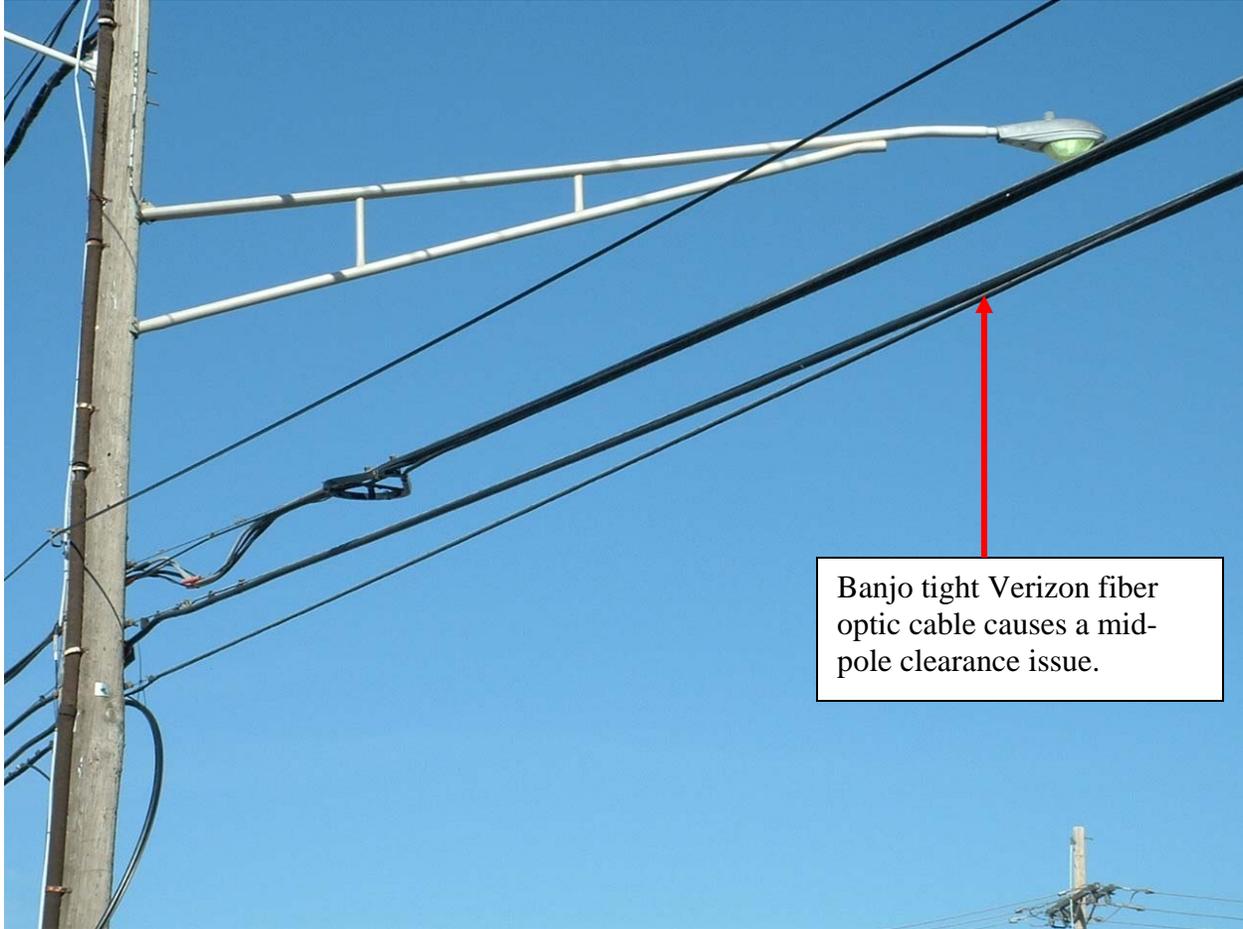
22 Gibbons Blvd., poles 832130 and 832131.



Photograph 10 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

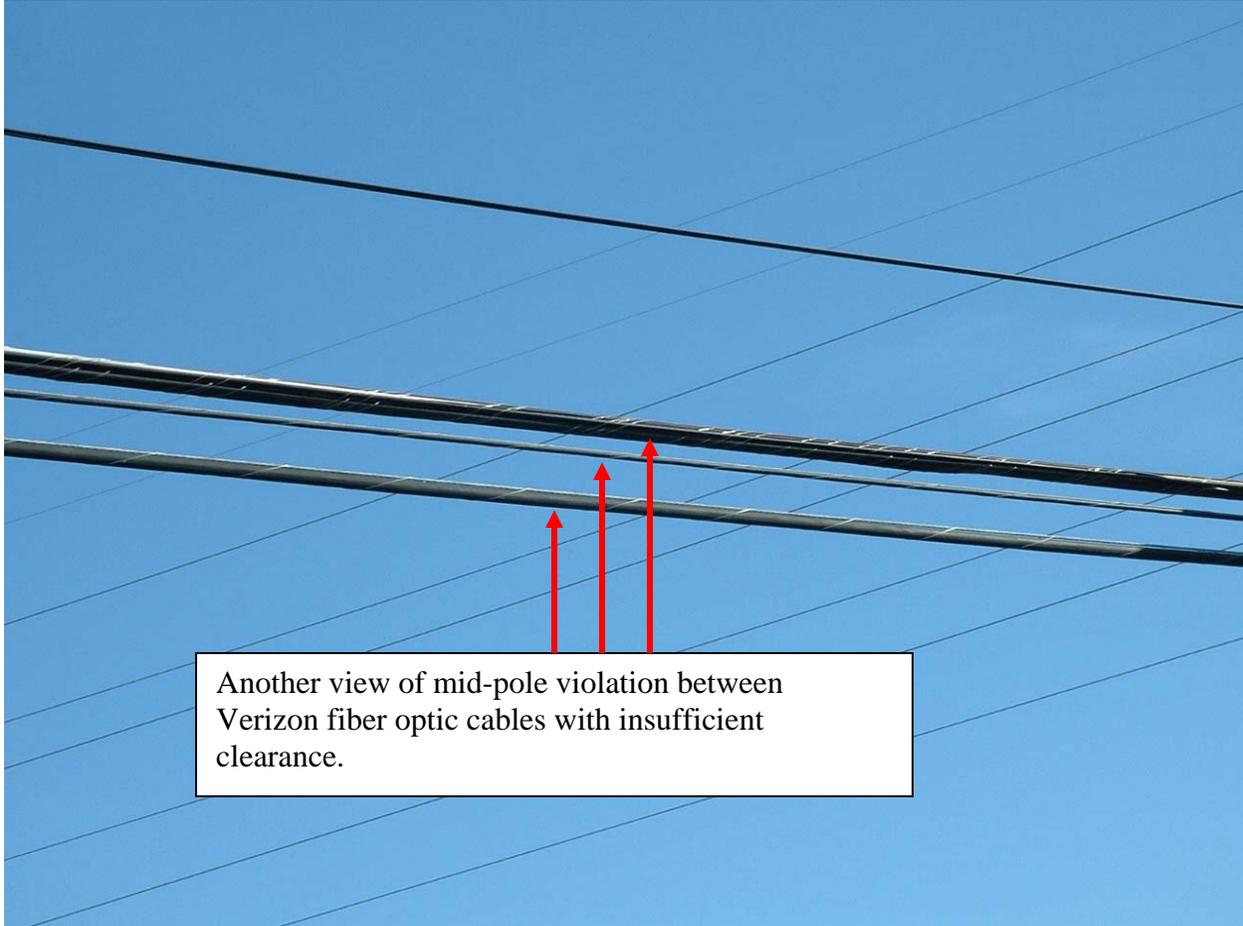
9924 York, poles 76251 and 278777.



Photograph 11 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

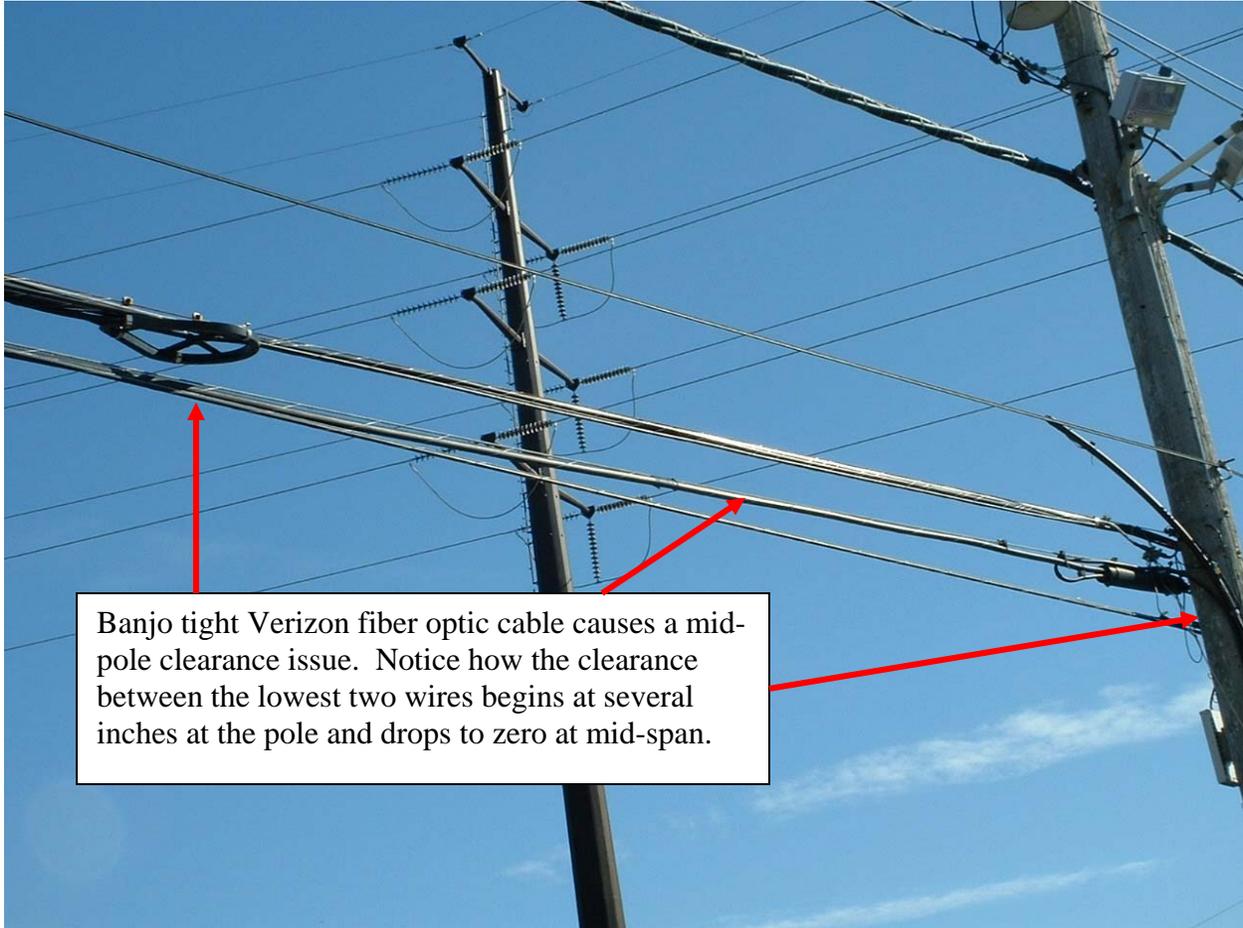
9924 York, poles 76251 and 278777.



Photograph 12 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

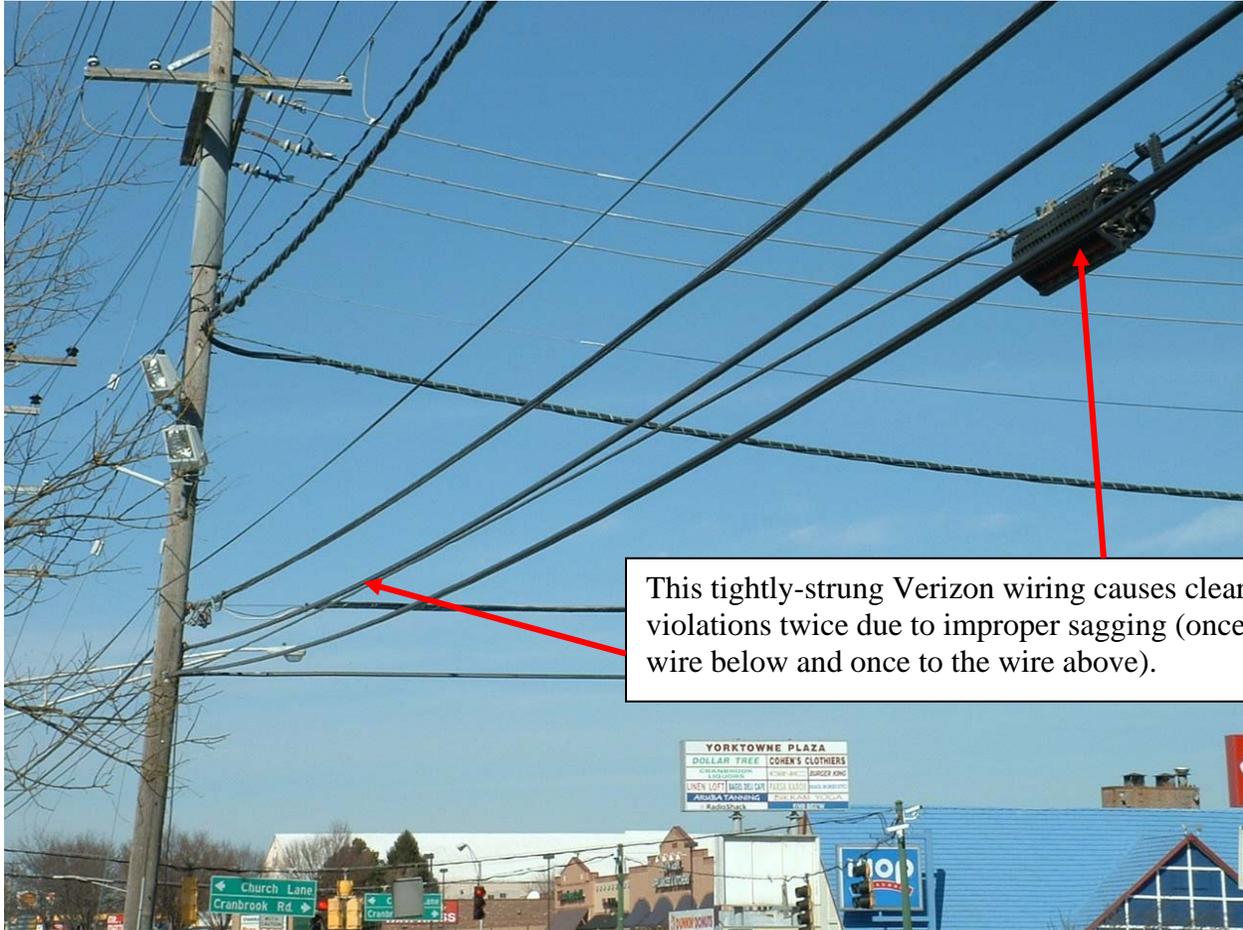
9924 York, poles 76251 and 278777.



Photograph 13 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

9926 York, pole 76261.

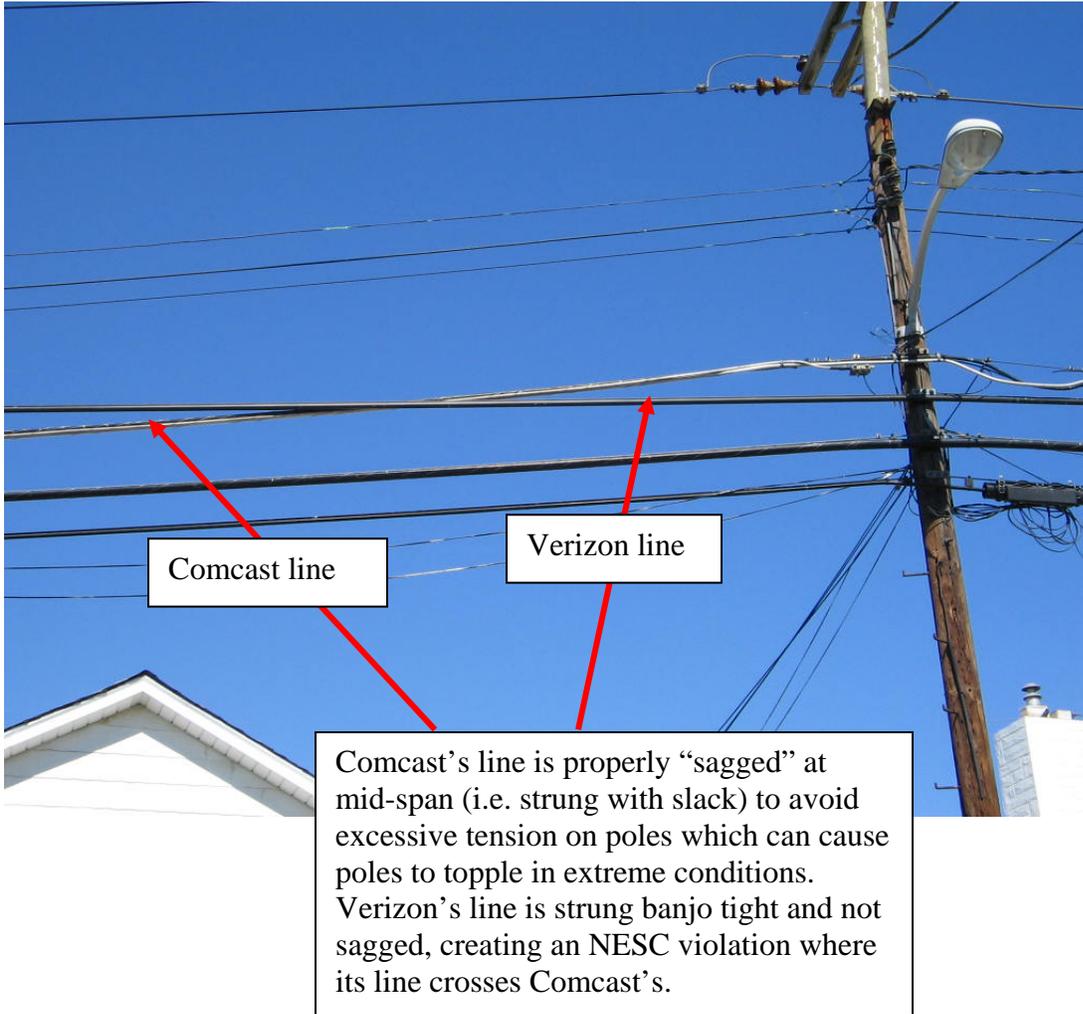


This tightly-strung Verizon wiring causes clearance violations twice due to improper sagging (once to the wire below and once to the wire above).

Photograph 14 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Dundalk Area

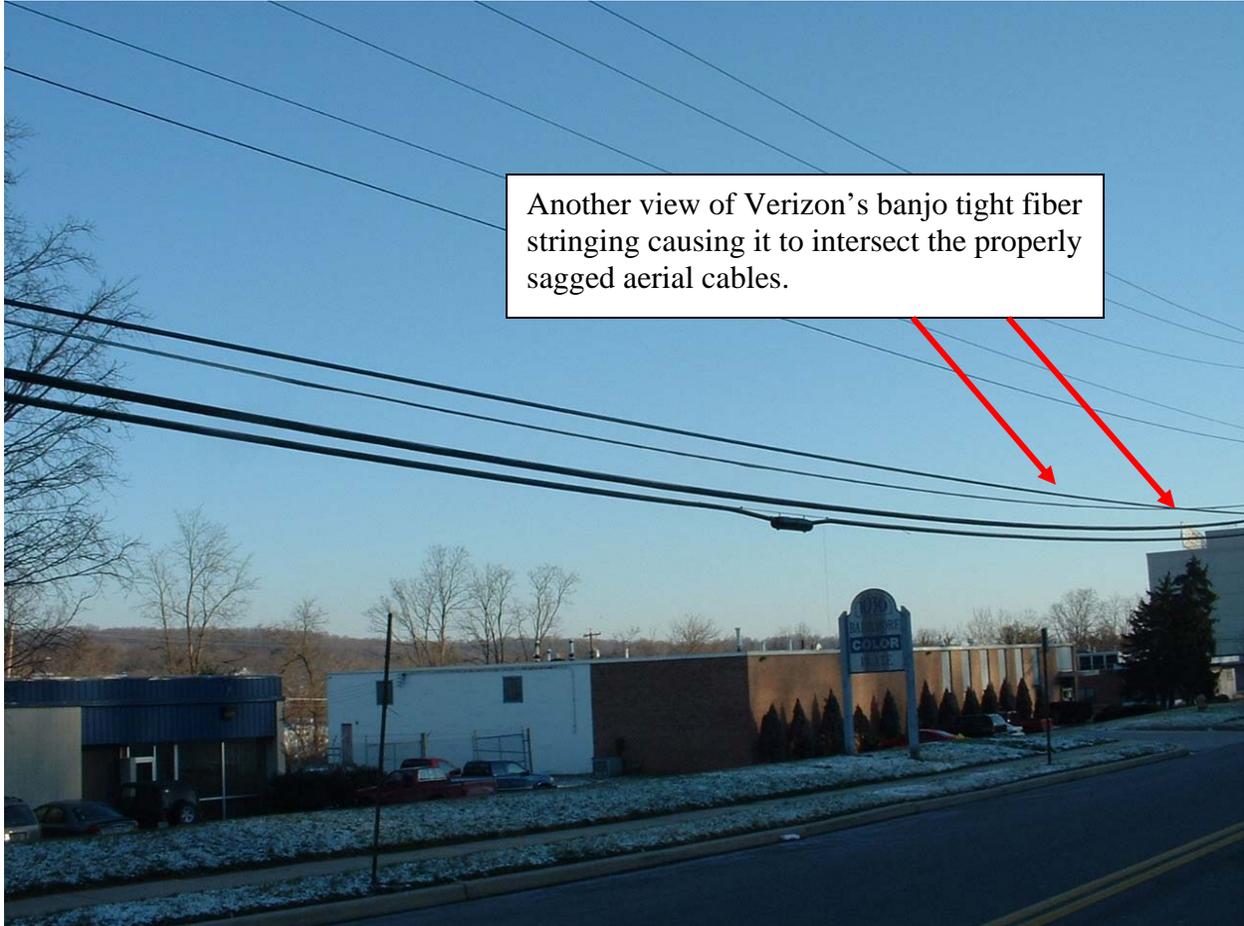
Avon Beach Road



Photograph 15 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Towson Area

Cromwell Bridge Road



Photograph 16 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Towson Area

Cromwell Bridge Road

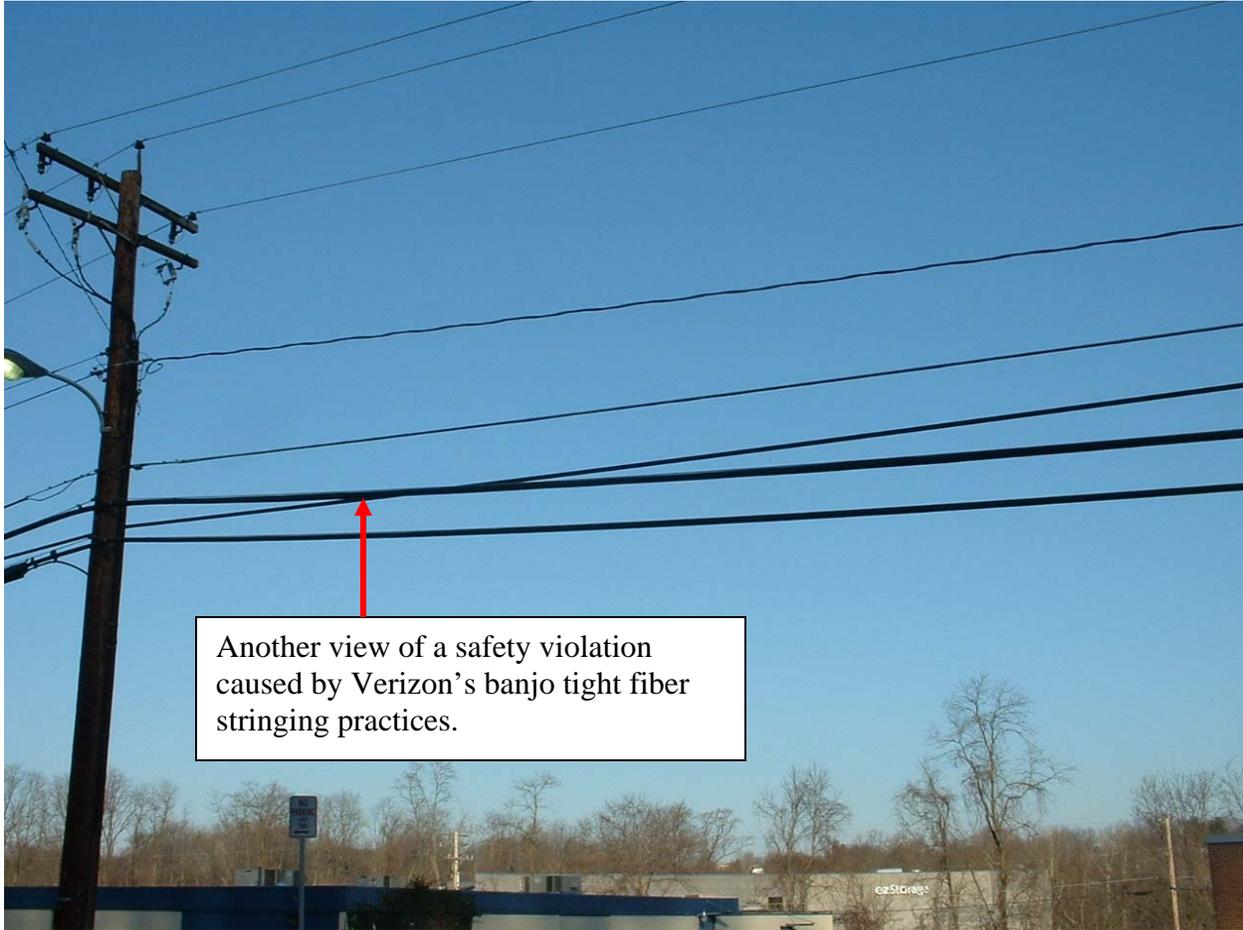


Verizon fails to sag its new attachment, causing two NESC violations as the strand crosses the other aerial attachments on the pole.

Photograph 17 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Towson Area

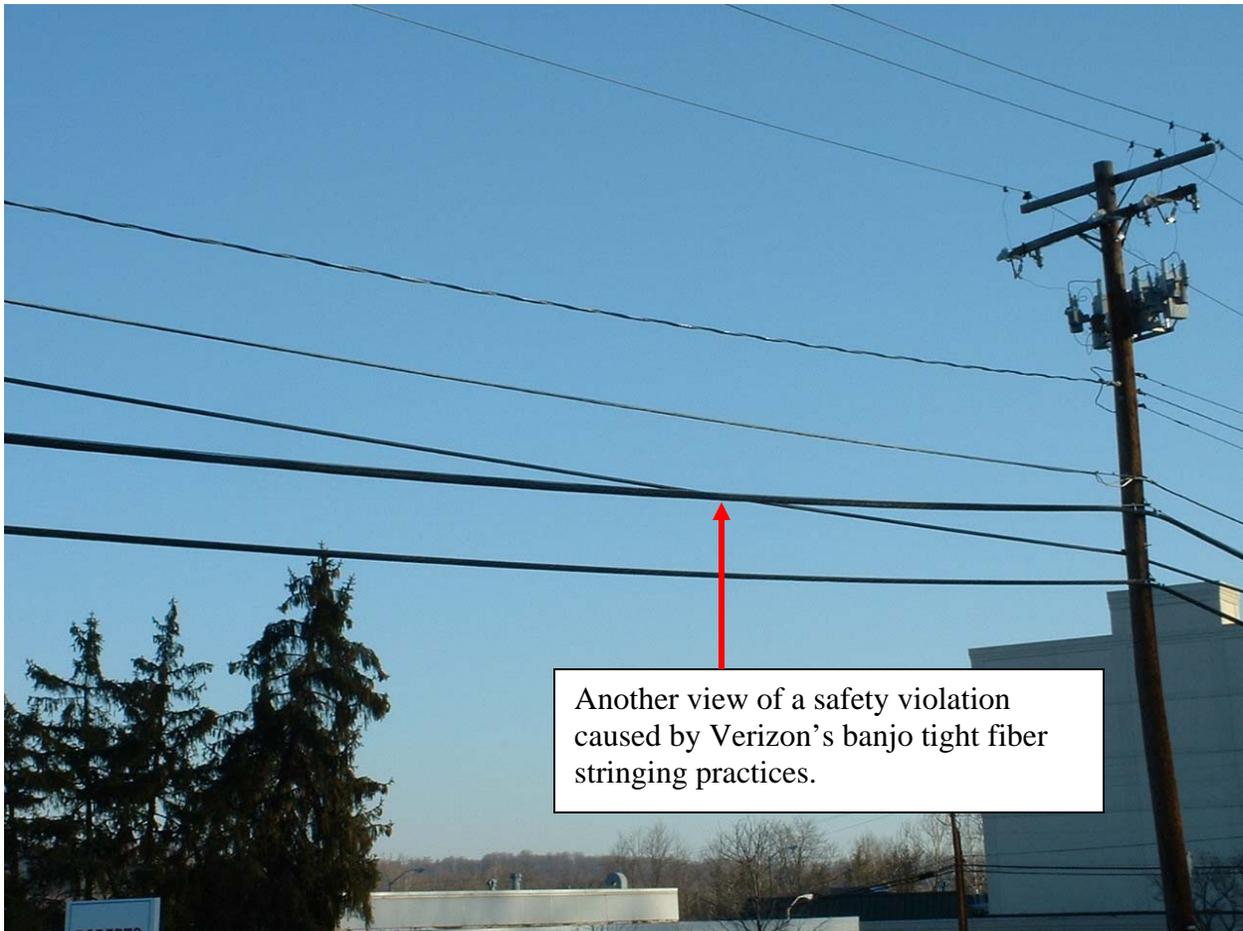
Cromwell Bridge Road



Photograph 18 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Towson Area

Cromwell Bridge Road



Another view of a safety violation caused by Verizon's banjo tight fiber stringing practices.

Photograph 19 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Anne Arundel County

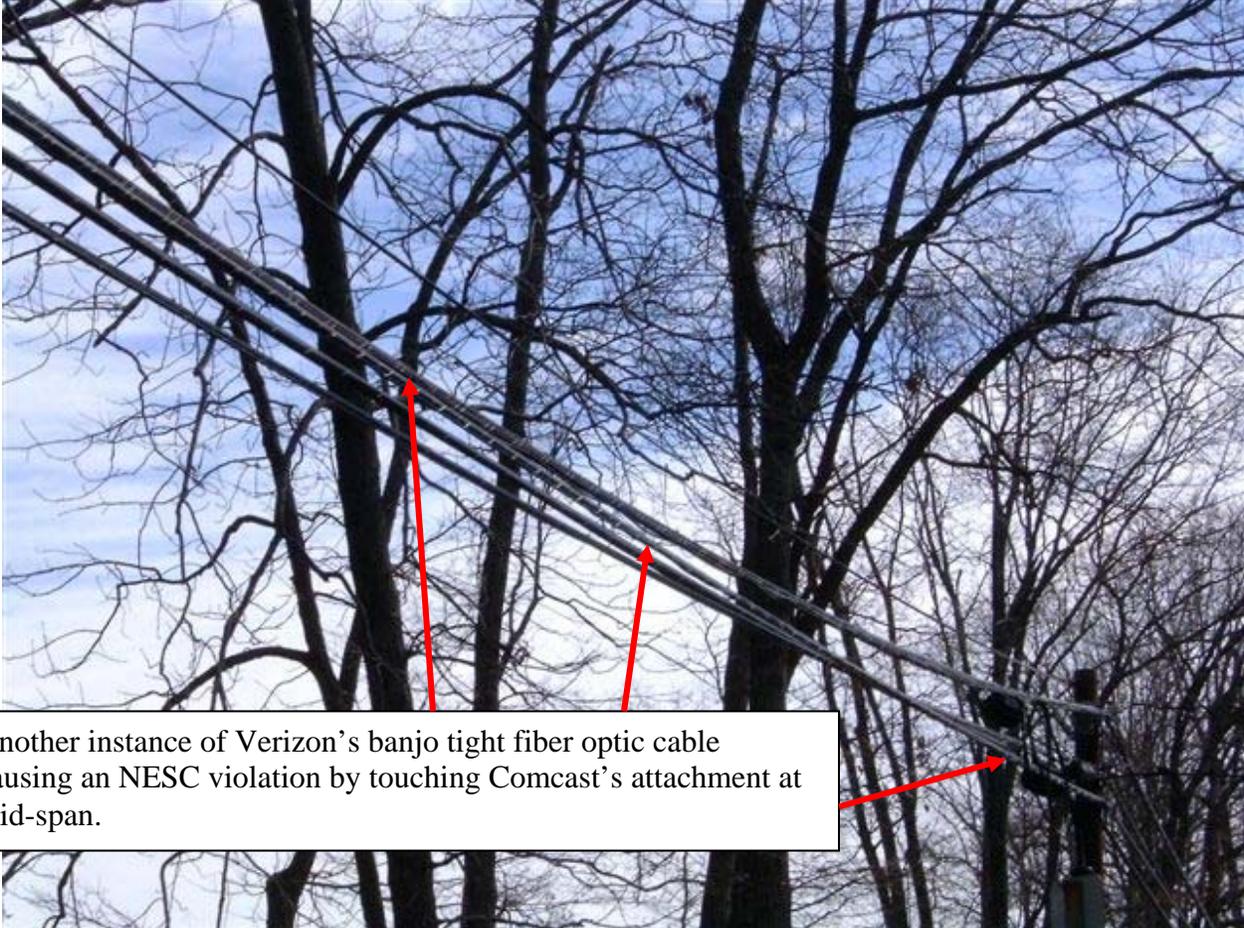
Jumpers Hole Road at East West Boulevard, jointly owned Verizon / Baltimore Gas & Electric poles.



Photograph 20 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Anne Arundel County

Benfield Road at Brownstone Drive, jointly owned Verizon / Baltimore Gas & Electric poles.

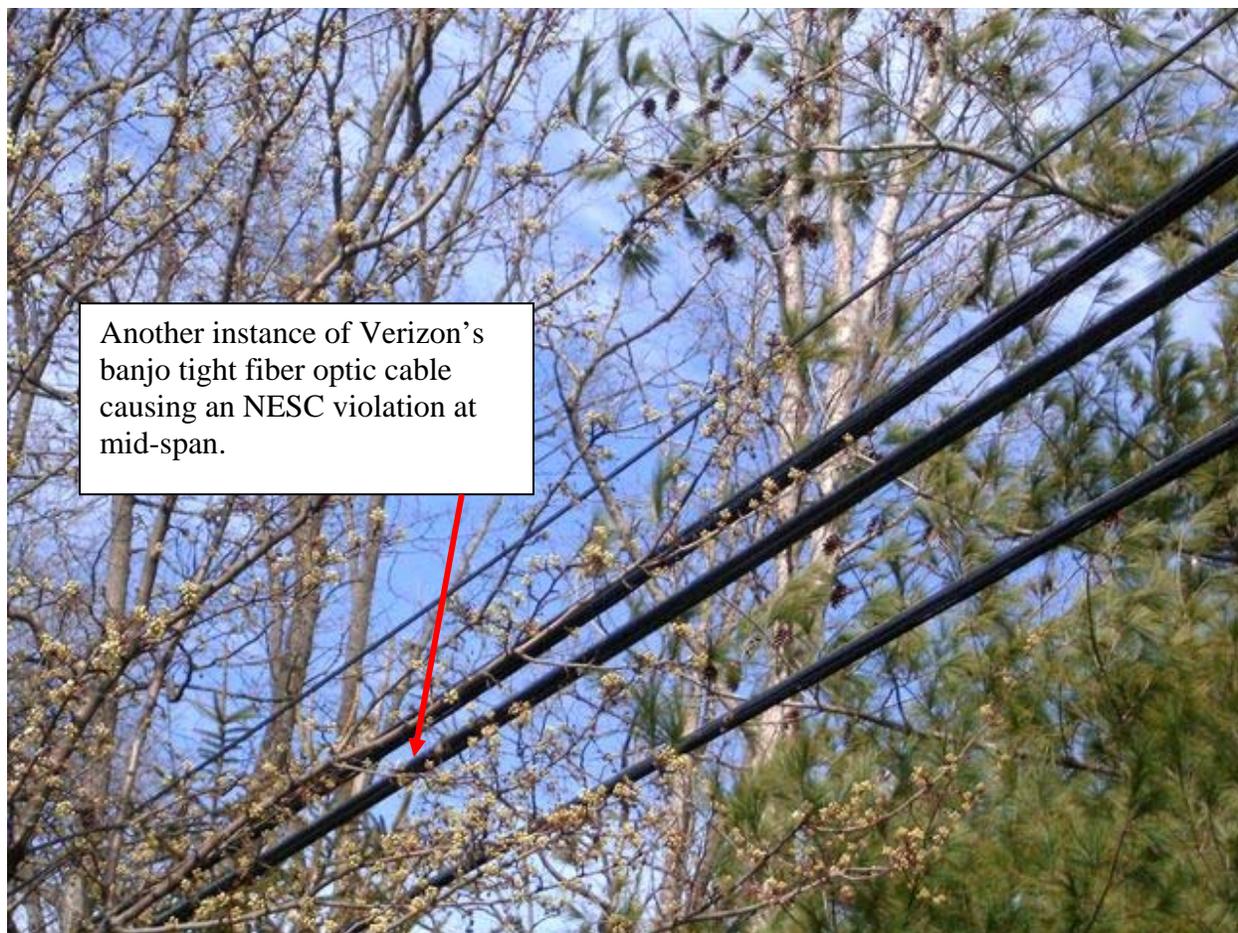


Another instance of Verizon's banjo tight fiber optic cable causing an NESC violation by touching Comcast's attachment at mid-span.

Photograph 21 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Anne Arundel County

Benfield Road at Jumpers Hole Road, jointly owned Verizon / Baltimore Gas & Electric poles.



Photograph 22 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

9926 York, pole 76261.

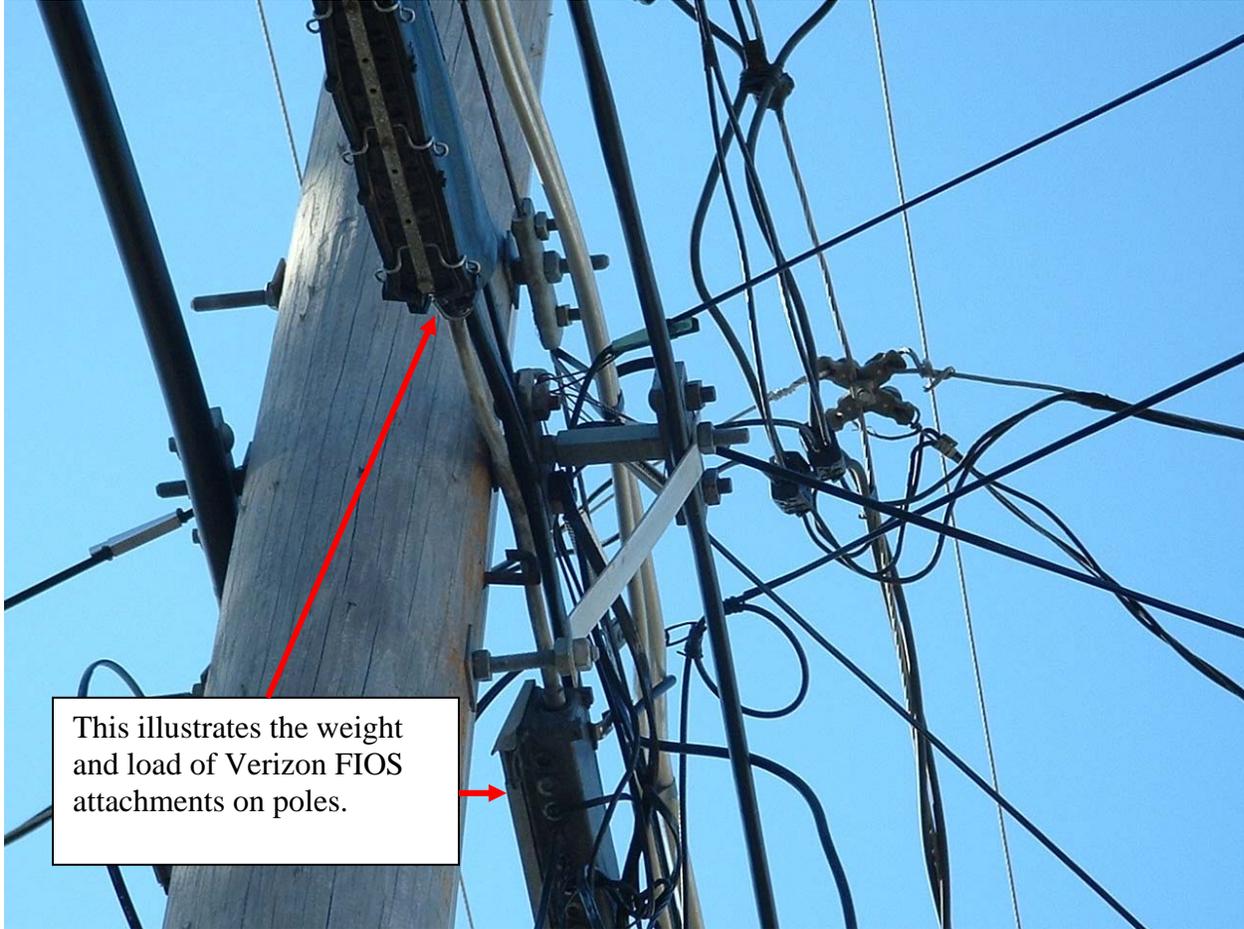


Here Verizon allowed a FIOS fiber optic inner-duct strand to hang down to the ground, wrapped around the base of the pole, creating a clear safety hazard to pedestrians and to the integrity of the aerial wires.

Photograph 23 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

22 Gibbons Blvd., poles 832130 and 832131.

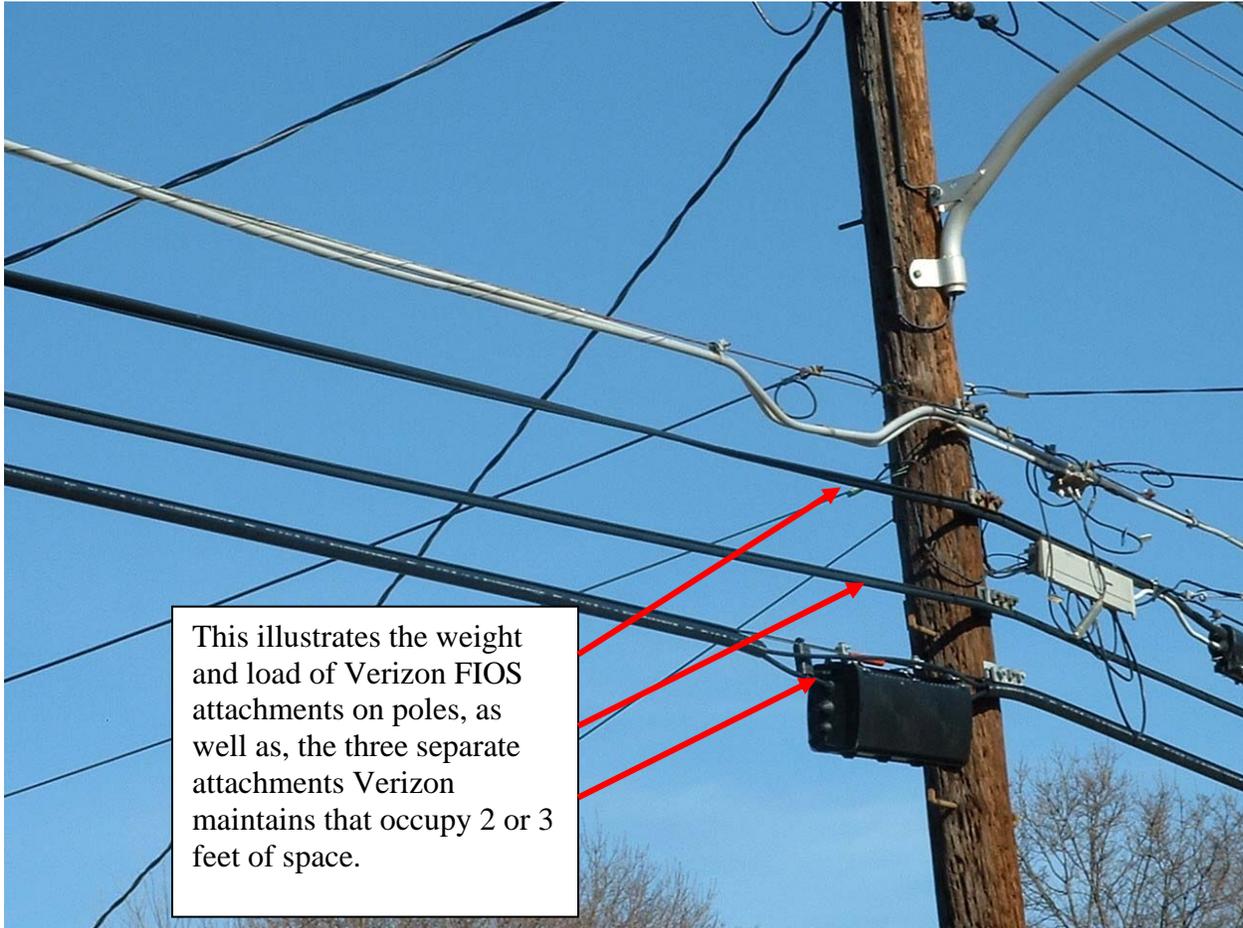


This illustrates the weight and load of Verizon FIOS attachments on poles.

Photograph 24 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Baltimore County

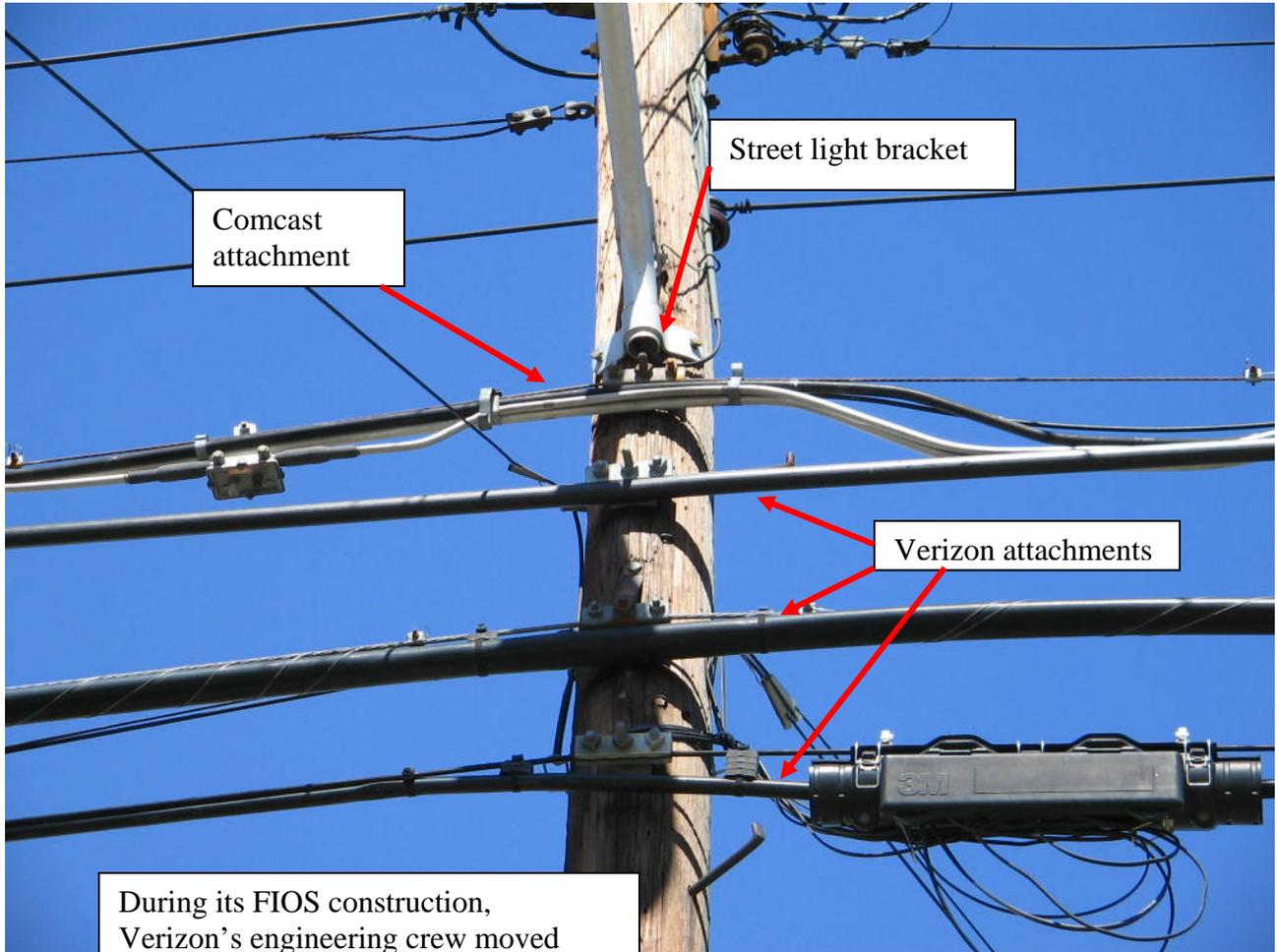
22 Gibbons Blvd., poles 832130 and 832131.



Photograph 25 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Dundalk Area

Avon Beach Road

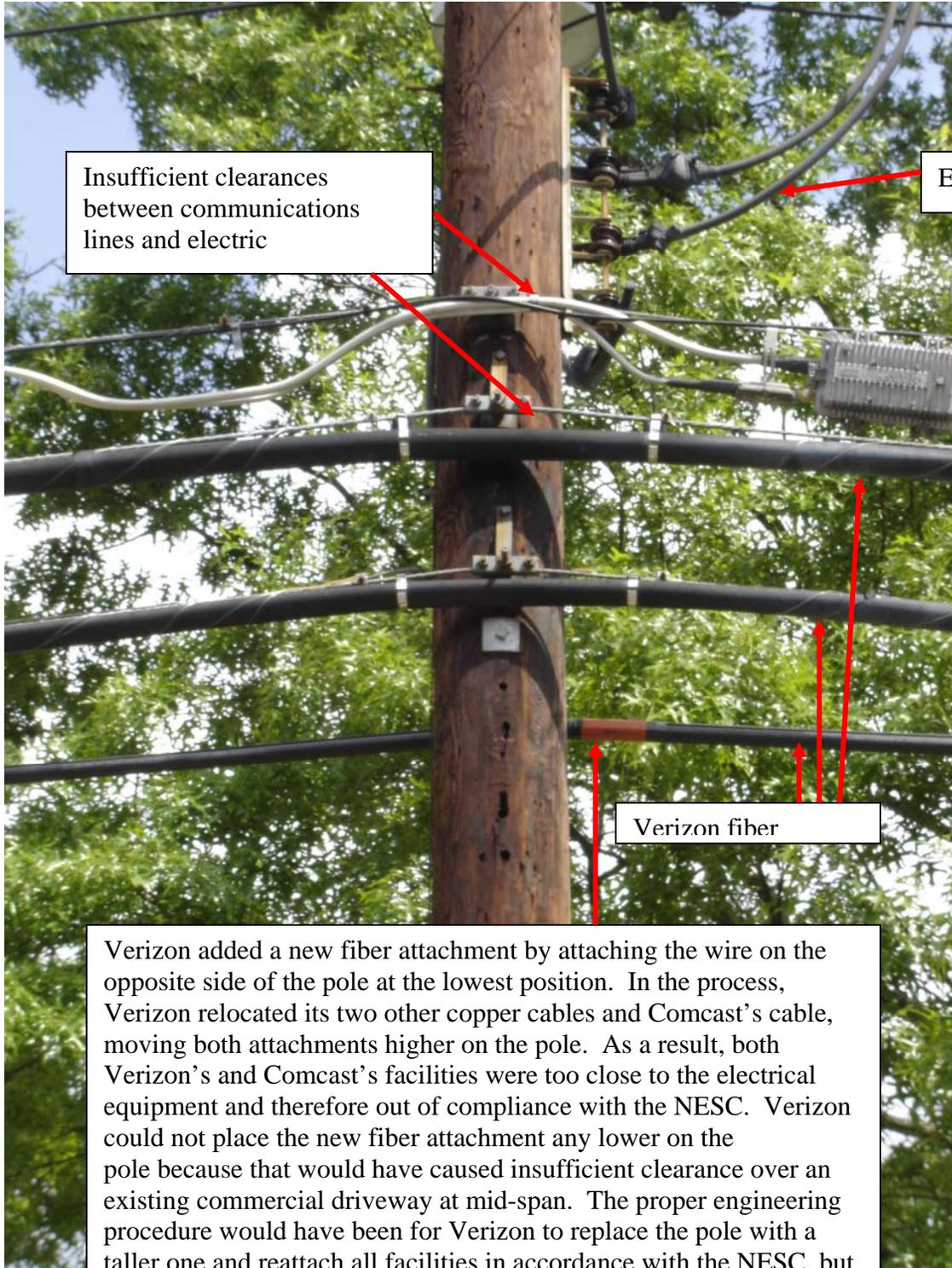


During its FIOS construction, Verizon's engineering crew moved Comcast's wire up on the pole to make room for the Verizon wire (without any notice or consent). As a result, Comcast's wire has insufficient clearance from the street light bracket, creating an NESC violation. This also shows how Verizon places as many as three wire attachments on a pole to cable's one.

Photograph 26 – Exhibit 3, Attachment 1

Verizon FiOS Maryland, Towson Area

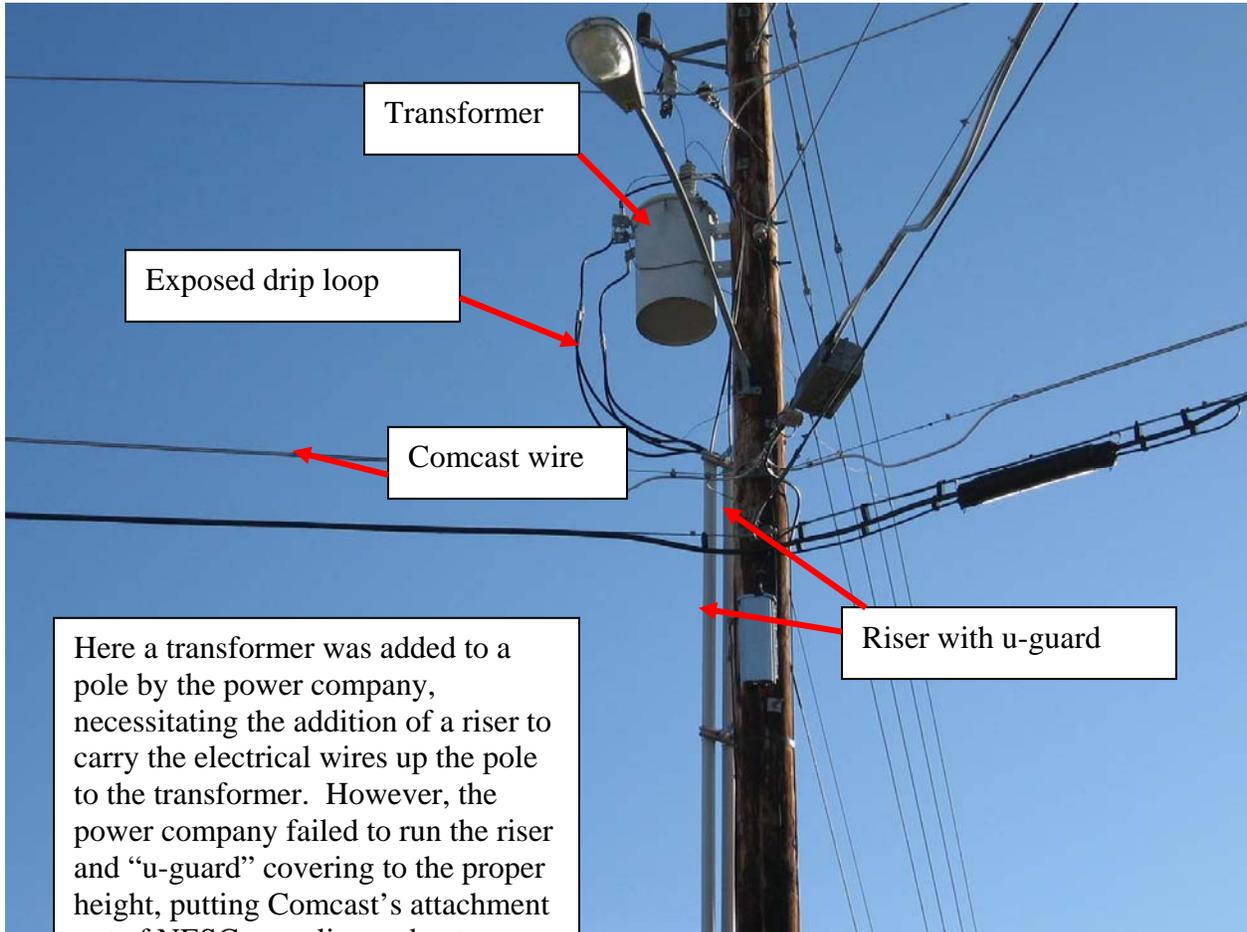
1026 Cromwell Bridge Road, Verizon Pole 19 / Baltimore Gas & Electric pole 297712.



Photograph 27 – Exhibit 3, Attachment 1

Power Company Electric Violation – Georgia

Blackwood Terrace, Calhoun



Transformer

Exposed drip loop

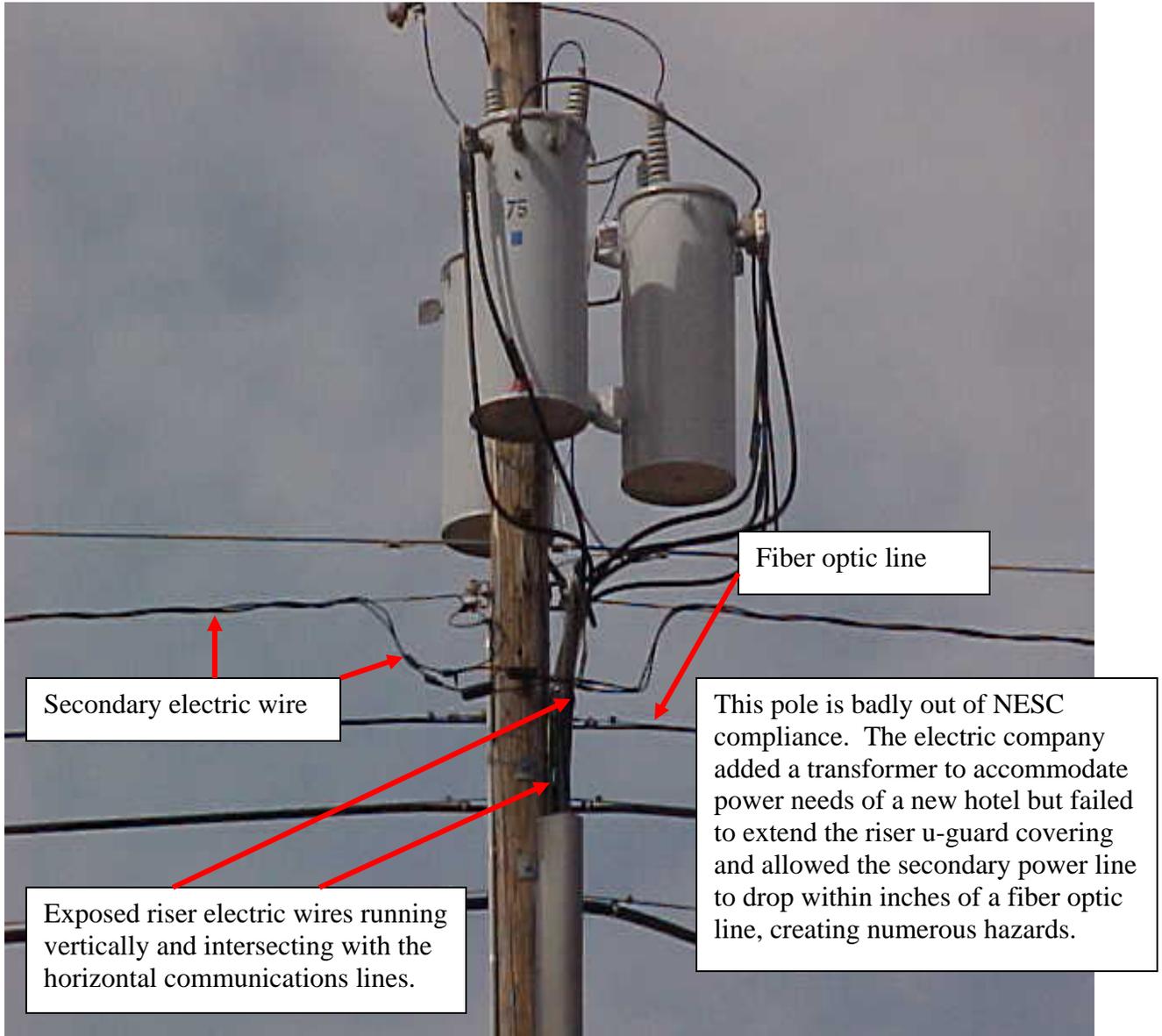
Comcast wire

Riser with u-guard

Here a transformer was added to a pole by the power company, necessitating the addition of a riser to carry the electrical wires up the pole to the transformer. However, the power company failed to run the riser and “u-guard” covering to the proper height, putting Comcast’s attachment out of NESC compliance due to proximity to the exposed “drip loop” electricity wires.

Power Company Electric Violation – Georgia

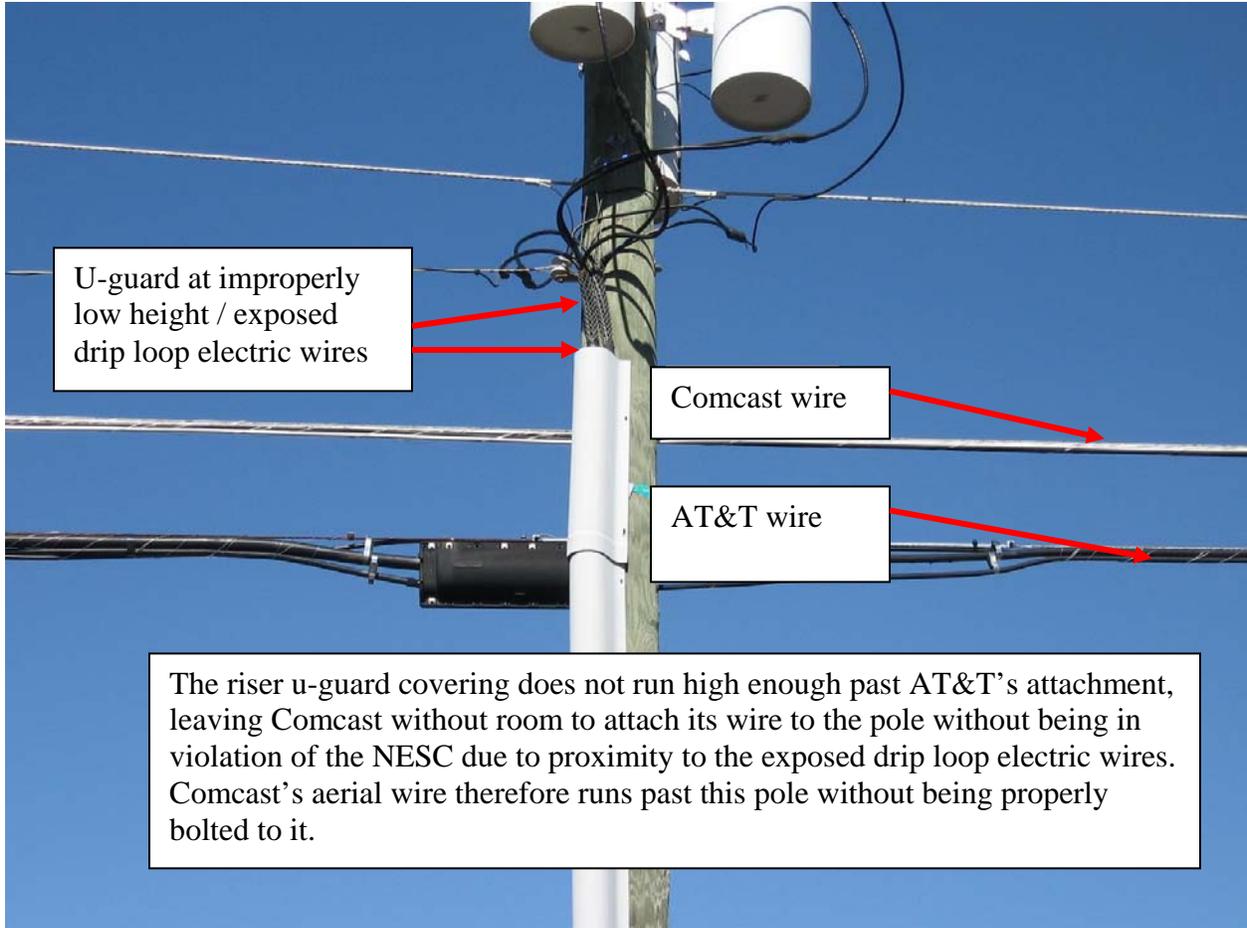
Highway 85, Riverdale



Photograph 29 – Exhibit 3, Attachment 1

Power Company Electric Violation – Georgia

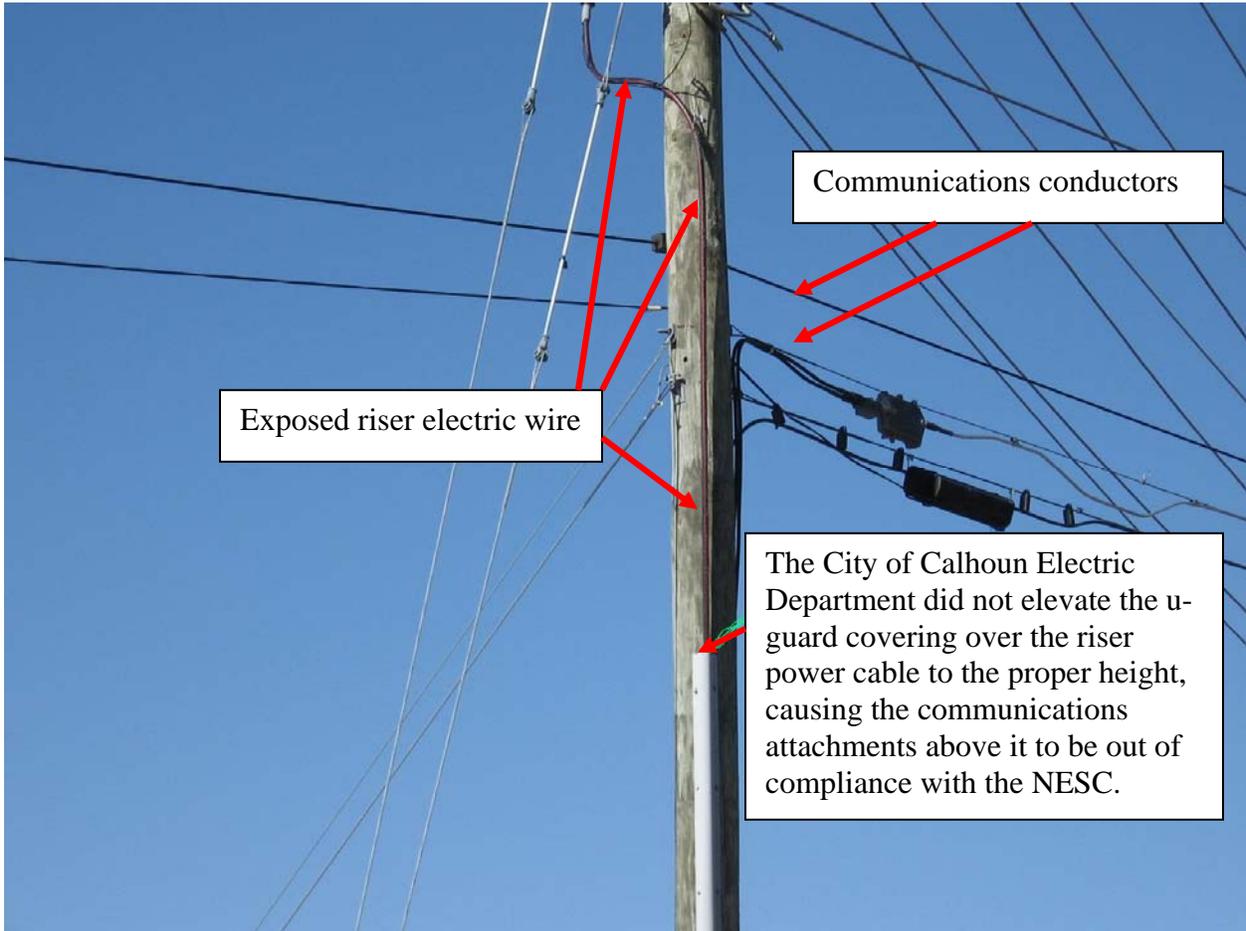
2761 Alabama Highway near Ashwood Inn, Georgia Power pole



Photograph 30 – Exhibit 3, Attachment 1

Power Company Electric Violation – Georgia

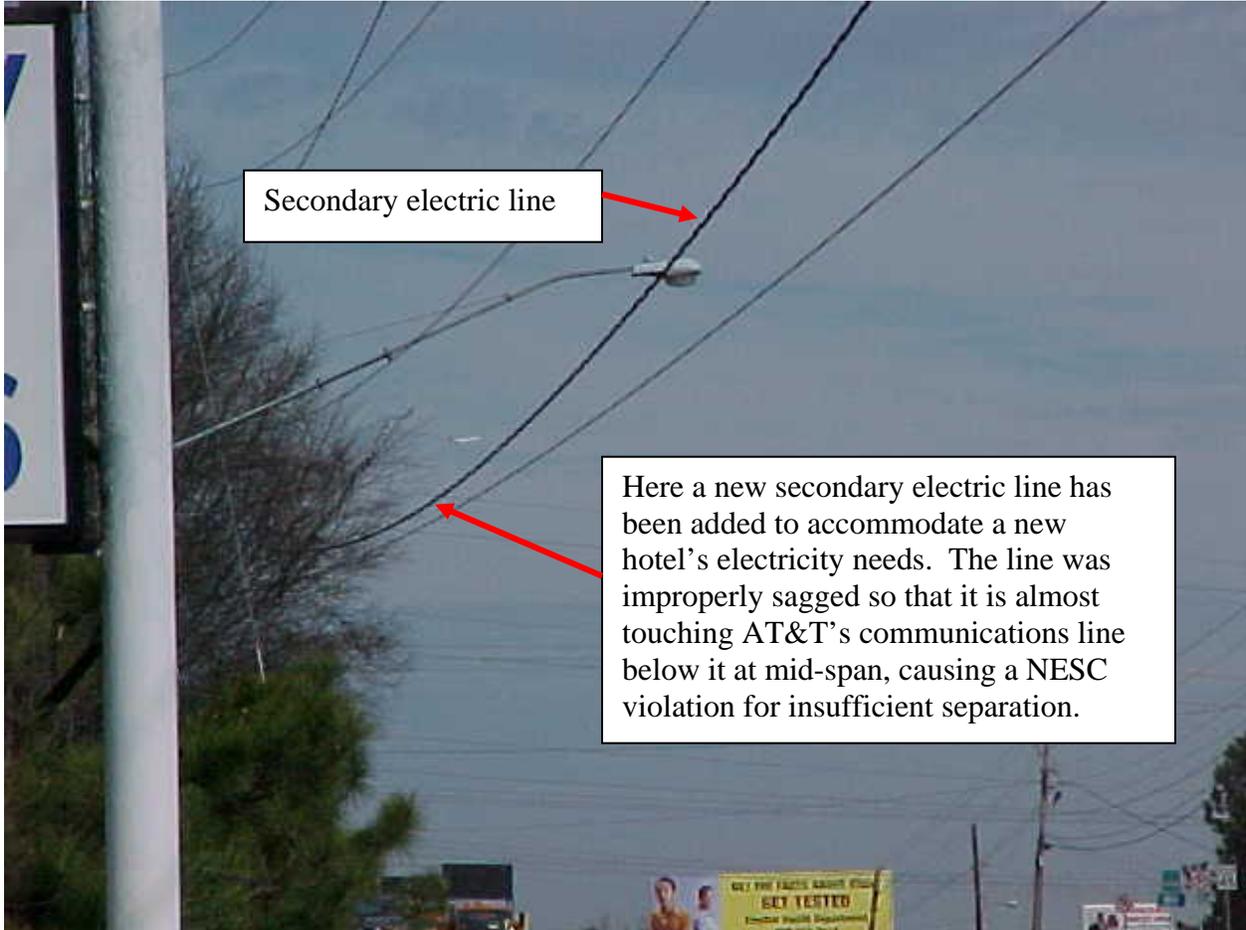
Mauldin Road at North King Street, Calhoun



Photograph 31 – Exhibit 3, Attachment 1

Power Company Electric Violation – Georgia

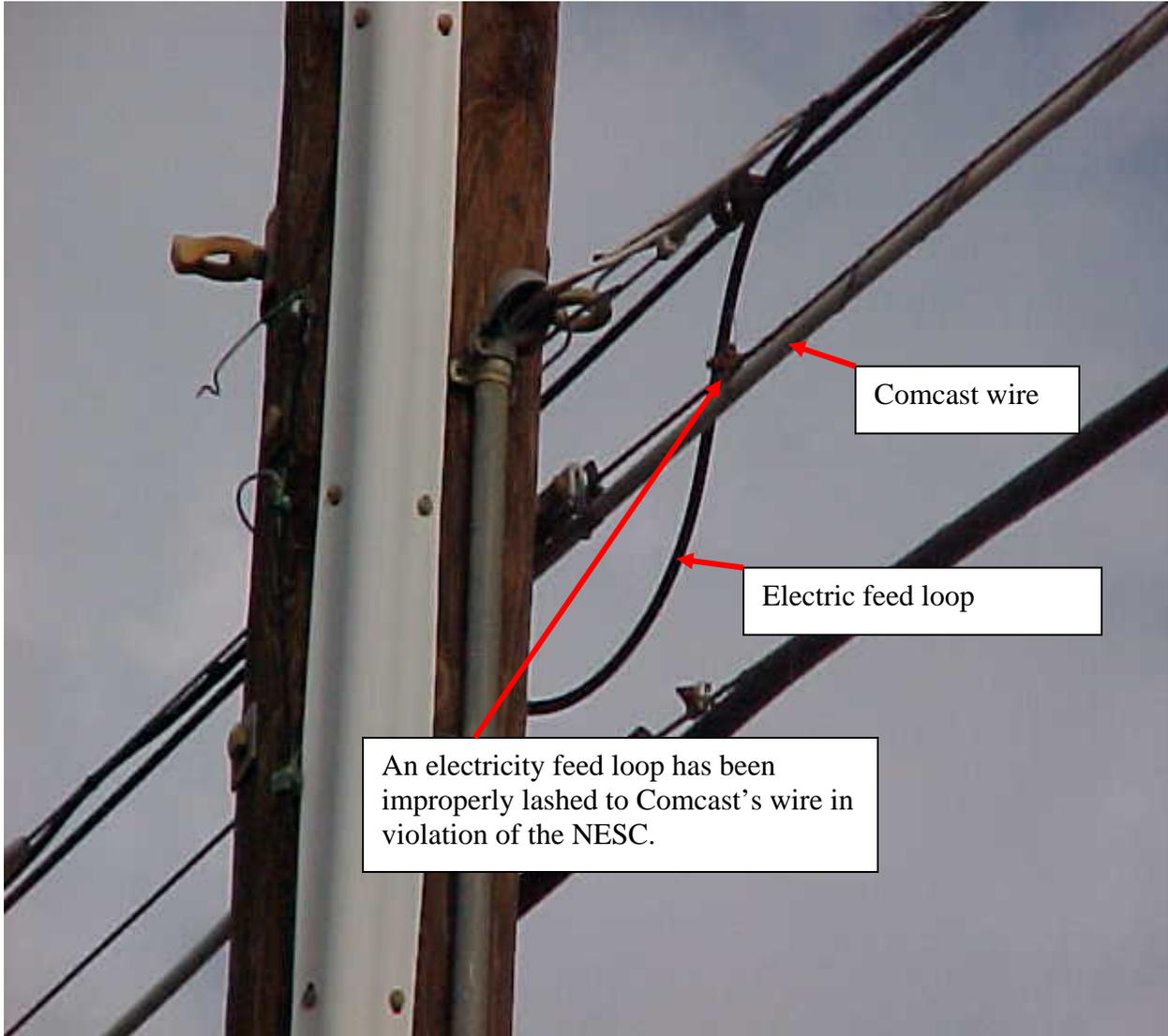
Highway 85, Riverdale at the Hometown Inn



Secondary electric line

Here a new secondary electric line has been added to accommodate a new hotel's electricity needs. The line was improperly sagged so that it is almost touching AT&T's communications line below it at mid-span, causing a NESC violation for insufficient separation.

Power Company Electric Violation – Georgia

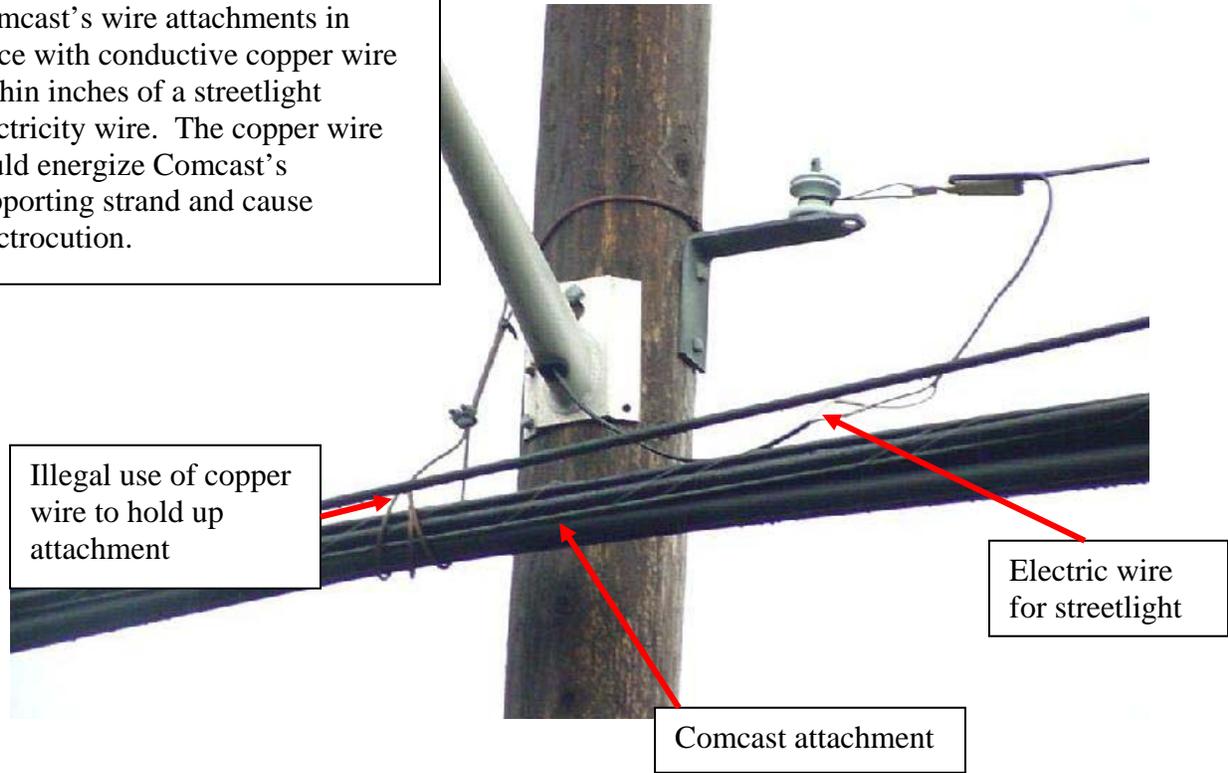


Photograph 33 – Exhibit 3, Attachment 1

Power Company Electric Violation – Washington

Pole located in Seattle, owned by Seattle City Light.

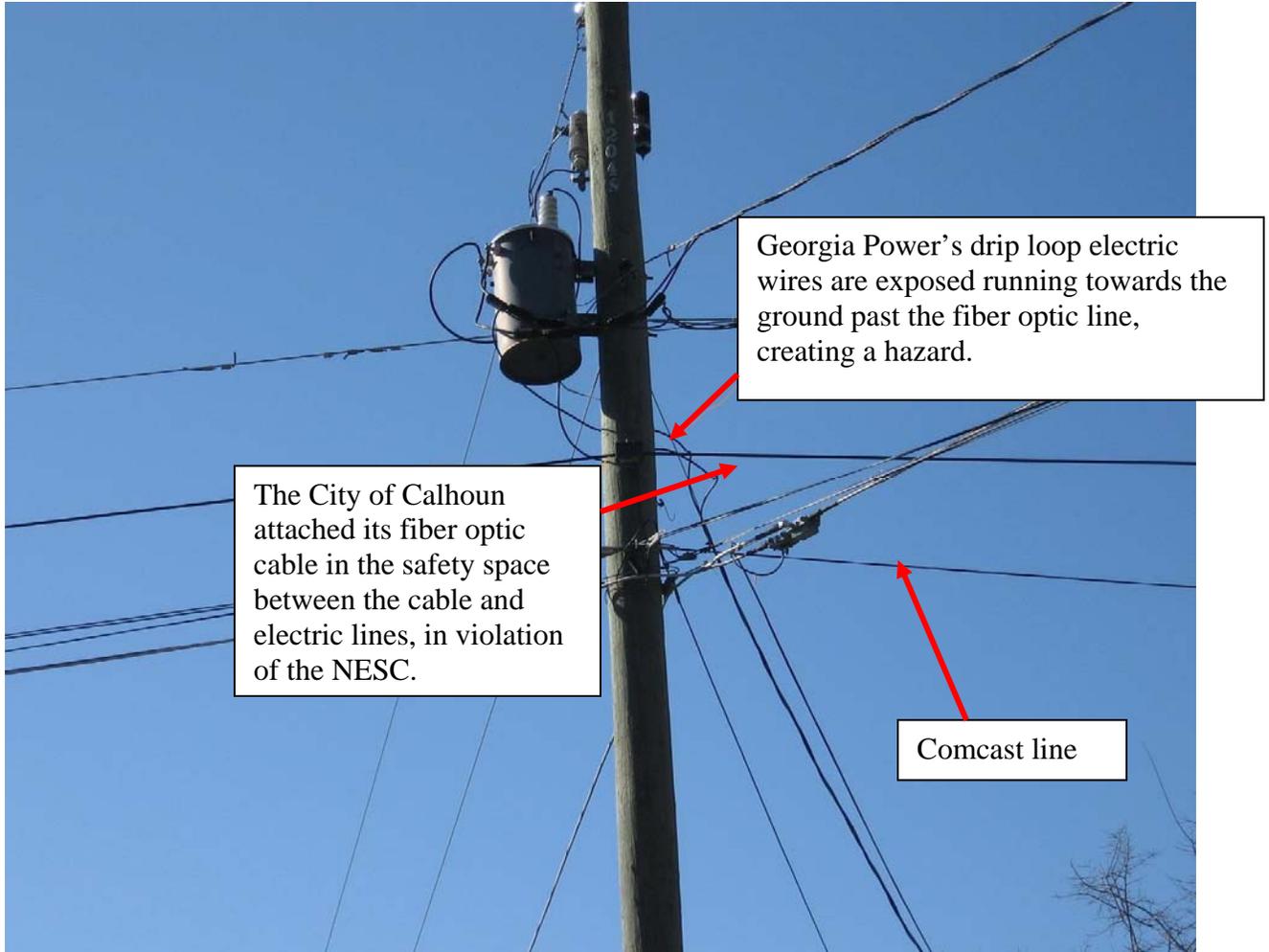
Seattle City Light, while performing maintenance on its plant by replacing a pole, tied Comcast's wire attachments in place with conductive copper wire within inches of a streetlight electricity wire. The copper wire could energize Comcast's supporting strand and cause electrocution.



Photograph 34 – Exhibit 3, Attachment 1

Municipal Attacher Violation – Georgia

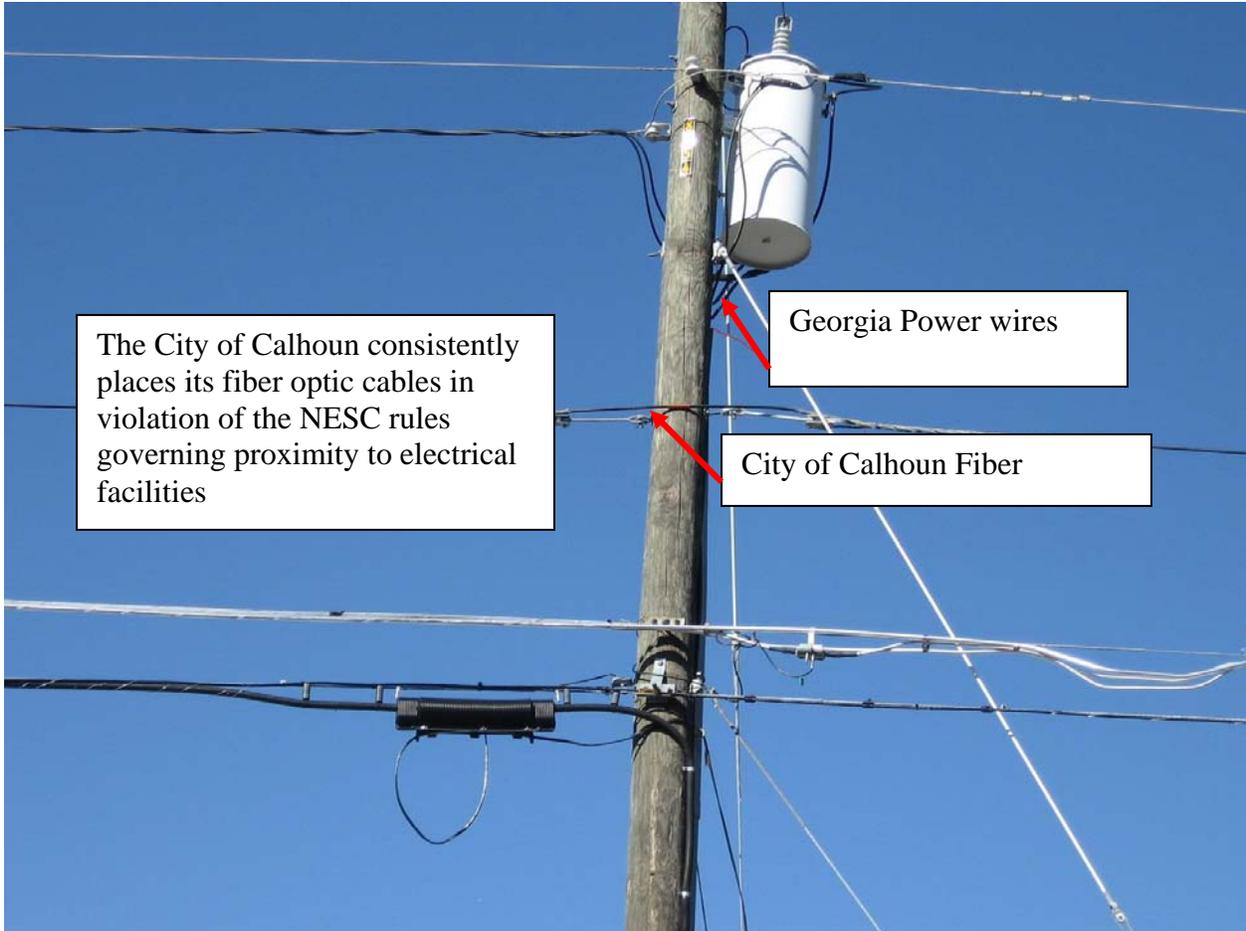
Old Dalton Road at Cherokee Drive, Calhoun, Georgia Power pole.



Photograph 35 – Exhibit 3, Attachment 1

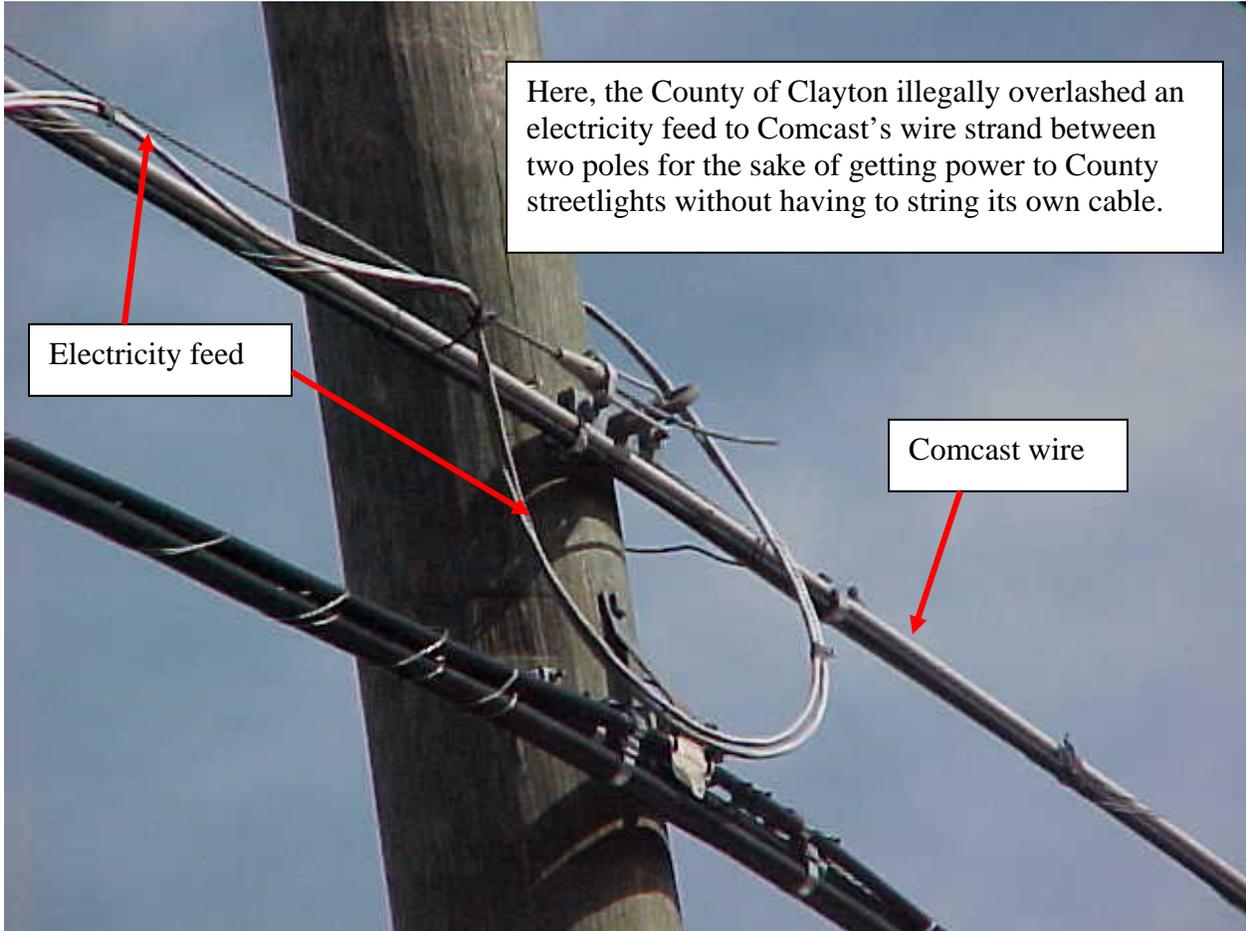
Municipal Attacher Violation – Georgia

Damascus Church Road, Calhoun, Georgia Power pole.



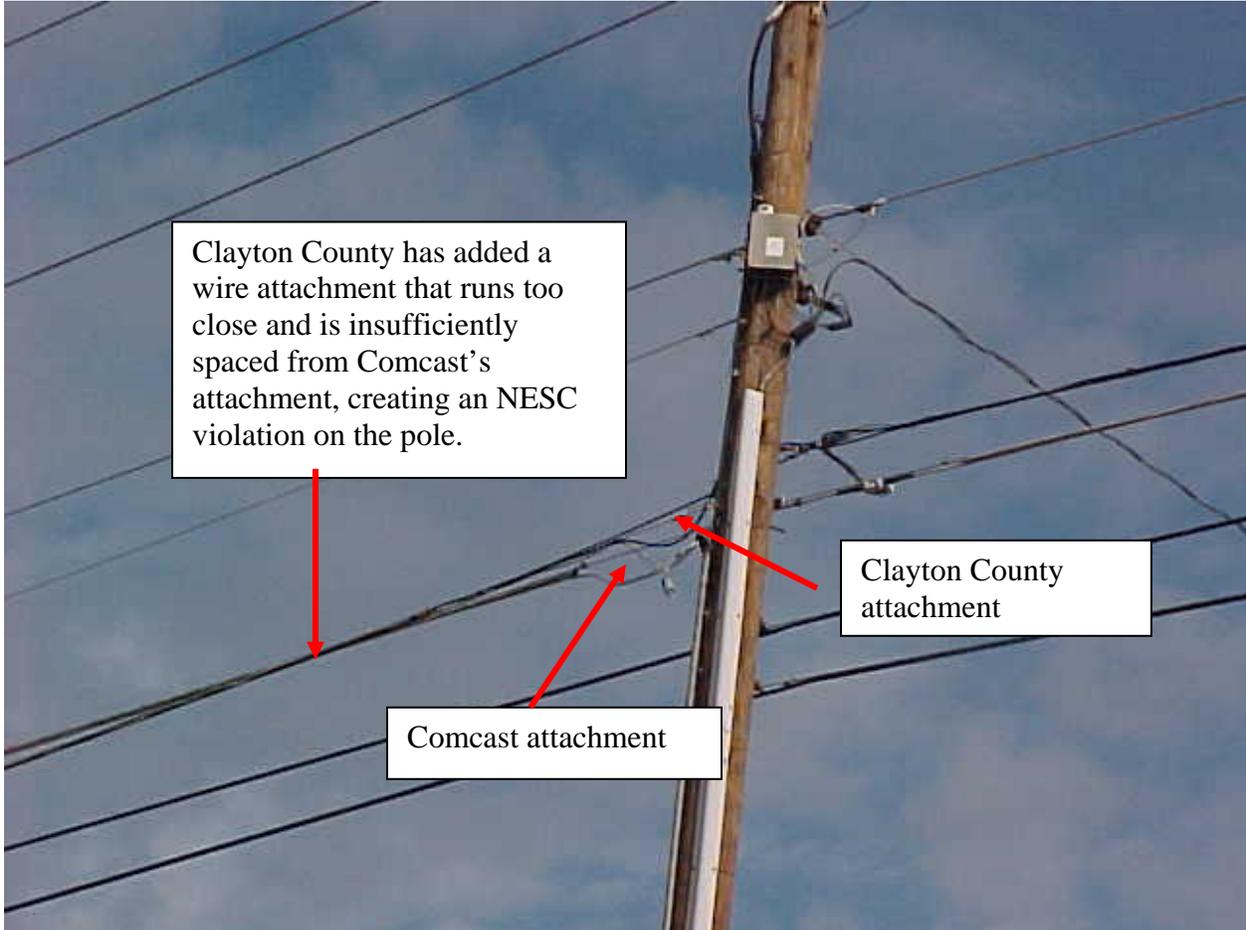
Municipal Attacher Violation – Georgia

Clayton County



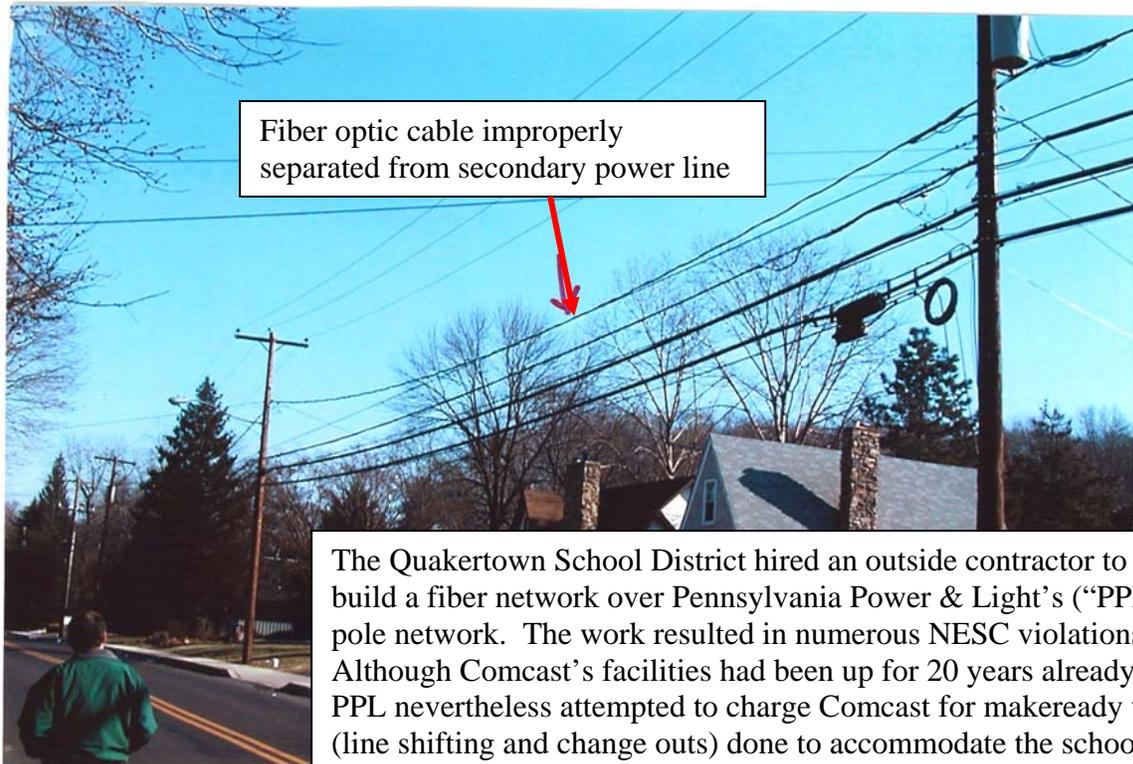
Municipal Attacher Violation – Georgia

Clayton County



Municipal Attacher Violation – Pennsylvania

Quakertown School District



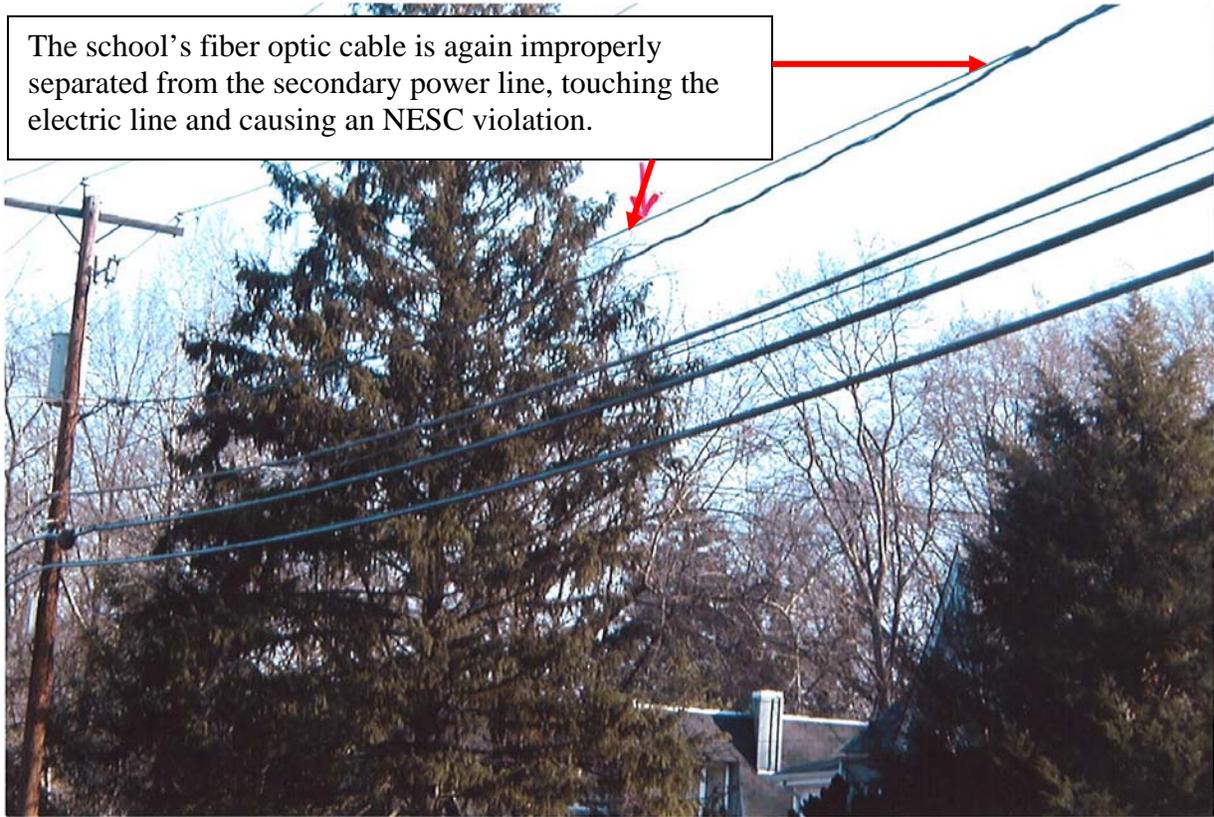
Fiber optic cable improperly separated from secondary power line

The Quakertown School District hired an outside contractor to build a fiber network over Pennsylvania Power & Light's ("PPL") pole network. The work resulted in numerous NESC violations. Although Comcast's facilities had been up for 20 years already, PPL nevertheless attempted to charge Comcast for makeready work (line shifting and change outs) done to accommodate the school's new attachments.

Photograph 39 – Exhibit 3, Attachment 1

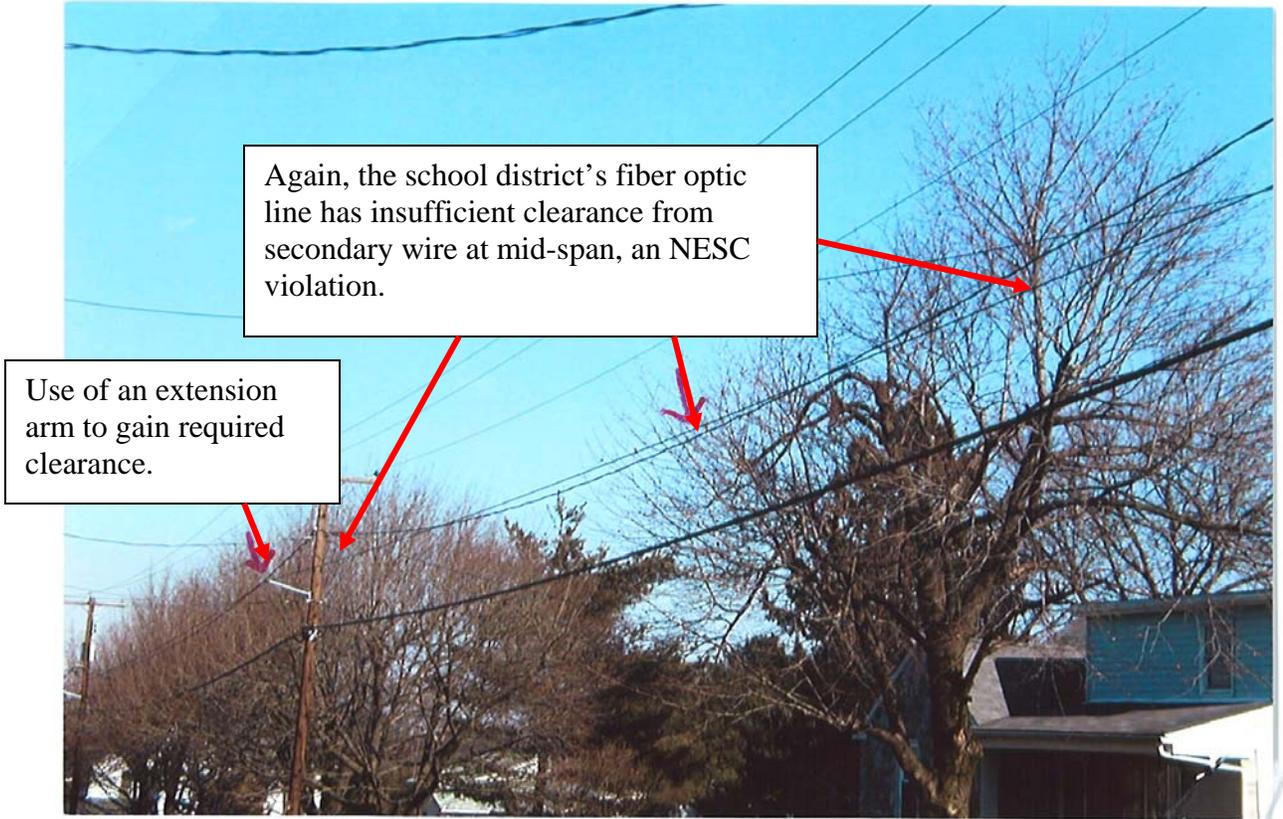
Municipal Attacher Violation – Pennsylvania

Quakertown School District



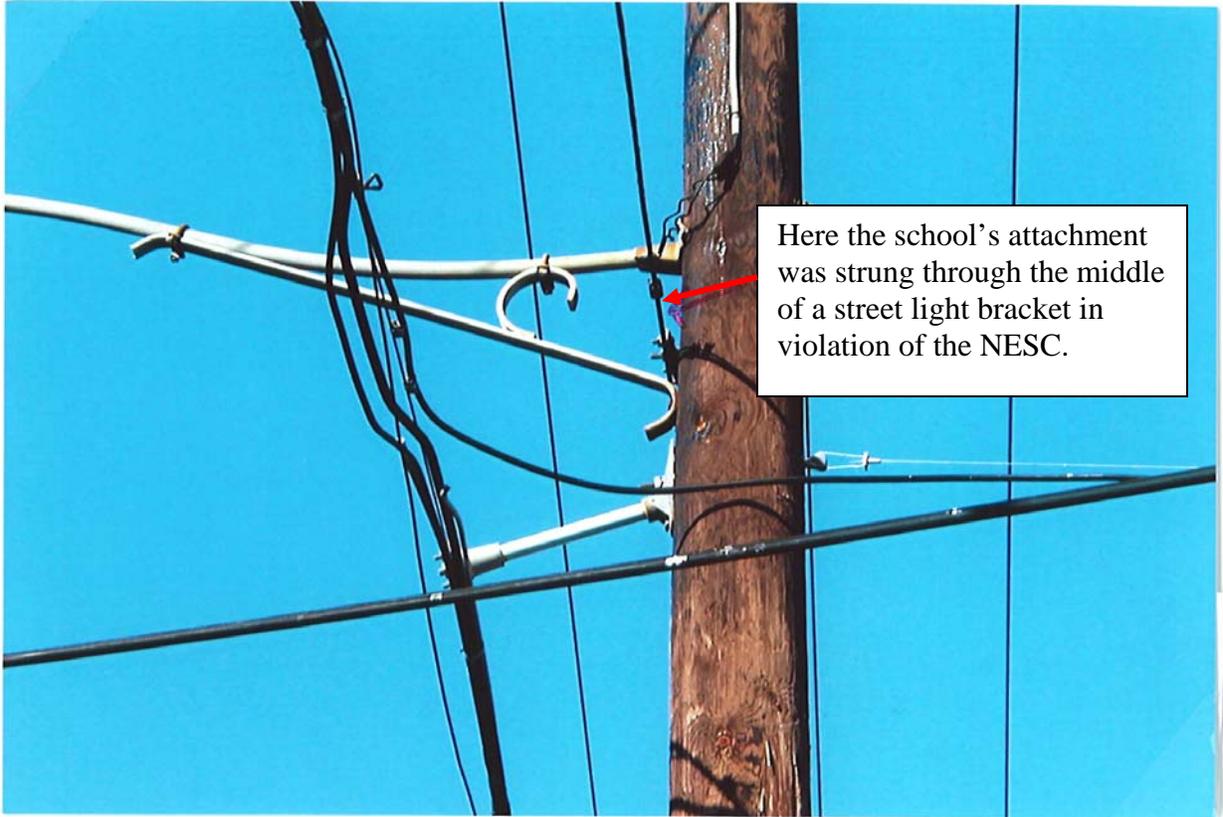
Municipal Attacher Violation – Pennsylvania

Quakertown School District



Municipal Attacher Violation – Pennsylvania

Quakertown School District



E X H I B I T 3 – Attachment 2

Gulf Power Transcript

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

IN THE MATTER OF)	EB Docket No.
)	04-381
FLORIDA CABLE TELECOMMUNICATIONS)	
ASSOCIATION, INC.; COMCAST CABLEVISION))	
OF PANAMA CITY, INC.; MEDIACOM)	
SOUTHEAST, L.C.C.; AND COX)	
COMMUNICATIONS GULF, L.C.C.,)	
)	
Complainants,)	
)	
v.)	
)	
GULF POWER COMPANY,)	
)	
Respondent.)	

Federal Communications Commission
Hearing Room A, TW A-363
445 12th Street, SW
Washington, D.C.

VOLUME 7

Tuesday,
April 25, 2006

BEFORE:

RICHARD L. SIPPEL
Chief Administrative Law Judge

NEAL R. GROSS

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1 me -- this gray covering is a -- a riser shield? Is
2 that right?

3 A Yes, it is.

4 Q And these are all hot secondaries that are
5 coming out of the top of the riser shield? Is that
6 right?

7 A Yes, they are.

8 Q And it appears that the communications
9 cable is even below where the riser shield ends and
10 the secondaries are? Is that right? And if you need
11 to confirm with -- with the -- the book or with your
12 testimony, please do. If it helps, the secondary is
13 listed on the page 3 of Exhibit 42 as 21.9, and the
14 mainline cables for Cox is at 22.1, which would be
15 above it, and the mainline cables for KMC appear to be
16 at 23.1 -- 24.1 so this actually would be above, I
17 believe, according to the Osmose chart? Is that
18 right?

19 A Let me verify it. Four inches it appears.

20 Q Now this is one of the -- the poles that
21 when you were talking about it in your testimony that
22 really -- I think you said it stood out in your mind

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1 as a good example. That was your language on page 35
2 of your testimony, line 7 was the question. And when
3 discussing this pole on page 36, actually at line 16
4 to 19, you said (reading) "This is an example of the
5 lengths to which some companies will go to avoid make-
6 ready and their contractual responsibilities on
7 crowded poles. This pole has numerous crowding and/or
8 safety clearance violations that must be fixed by
9 changing the pole out to a taller pole" (end reading).

10 A Thirty-five where?

11 Q I'm sorry. That was 36, line 16 to 19,
12 really the last sentence of the full paragraph.

13 A You know, in my review of the pole, it
14 shows that the attachments were above the riser which
15 you cannot tell because of the angle that the photo
16 was taken.

17 Q There's also another interesting
18 violation, is there not, that the power from the light
19 lead is actually -- it looks like it's touching the
20 communications cables? Do you see that?

21 A I do. What a -- a good --

22 Q Is that the condition when you saw it?

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1 A I don't believe that it was.

2 Q But I can do KBI -- Ms. Corbyn, I have it
3 on my computer. I have -- and I -- I can switch back.
4 Sorry. No, not -- not my car --

5 JUDGE SIPPEL: The one we were just
6 looking at, so I'm clear on this, what we -- what you
7 just had up there on the screen is -

8 MR. SEIVER: This one?

9 JUDGE SIPPEL: -- is identified or
10 described at page 35 of Mr. Bowen's testimony also?

11 MR. SEIVER: Not this precise picture but
12 that pole.

13 JUDGE SIPPEL: Well that-- this pole --
14 all right -- yes, okay -- okay -- okay. That's all
15 right. You've answered my question. And you're --
16 the picture that he was looking at and -- his -- his
17 test point to is your Exhibit what?

18 MR. SEIVER: That's from our Exhibit 6 and
19 also our testimony of Mr. Harrelson at page 16. He
20 has the picture repeated there.

21 JUDGE SIPPEL: Thank you. Okay. Clear
22 enough.

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1 MR. SEIVER: And just so it's also clear
2 for the record, for some reason this, it doesn't show
3 the top, but this has a picture number of 1353 that
4 will help tie it into what we have, but if I go back
5 to our version of 318-65, which is what we were
6 looking at before that Ms. Corbyn had put it up, this
7 is a Gulf Power picture, and it's the same pole, it's
8 a little bit -- the contrast is a little bit better --
9 I think it was a scan version in that -- so you can
10 see a little bit better how the -- the wires go, and I
11 think you can see that the secondary power that was --
12 that we showed was lame does appear, at least in this
13 picture, to not be touching the communications cables.

14 So it's sometime after the Osmose picture was taken
15 and -- and Mr. Harrelson took his pictures when that
16 must have come down? Would that be fair? Because
17 that -- that's something that Osmose would have noted,
18 too? Am I right?

19 A If -- had Osmose had seen that, I would --
20 I would hope that they would have noted that, yes.
21 And there was notes available -- they knew that that
22 was -- when they say a safety issue that needed

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1 addressing to -- to make a -- a not of that and keep
2 in mind that there was, what, three or four hurricanes
3 between that photo being taken and today, so any
4 number of things could have happened.

5 MR. SEIVER: Maybe that was the only
6 thing?

7 THE WITNESS: Excuse me?

8 MR. SEIVER: I'm sorry. I'll -- I'll
9 withdraw that.

10 THE WITNESS: I don't --

11 BY MR. SEIVER:

12 Q If we look at this pole, and judging from
13 what you said before, maybe now we have two moments in
14 time -- we have the moment in time that the picture
15 was taken to show the violations and the moment in
16 time Mr. Harrelson took the picture to show violations
17 -- but you can't tell from looking at this pole, I
18 guess you could say, who shot John or who was there
19 first, you can't say who was on the pole at any
20 particular time to then say that any particular
21 entity, whether it be Gulf, KMC, Cox, or Bell South
22 caused it to be in violation as set forth in Exhibit

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1 42? Is that right?

2 A We -- as I've stated before --

3 Q Yes or no, and then, please?

4 JUDGE SIPPEL: Can you answer that yes or
5 no and then give an explanation?

6 THE WITNESS: Ask the question one more
7 time make sure I've got it straight?

8 BY MR. SEIVER:

9 Q As you look at this picture today that was
10 taken with the Osmose, part of Exhibit 42, you cannot
11 tell us who was on the pole in what order or whose
12 attachment caused the pole to go into violation?

13 A Are you saying that I -- I cannot? Are
14 you asking me if I can?

15 Q I am suggesting that you cannot and you're
16 answer would be yes if you cannot, and if -- no if you
17 can. And if you can tell the difference, then who
18 went on first or second or third or caused the
19 violation. I'm going to ask you to explain.

20 A The order for attaching to the pole would
21 have been, in this case, or any case, would be the
22 power company goes first, and then the ILEC would

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1 typically go next, and then the subsequent
2 telecommunication company would go, and they would go
3 above the ILEC, and the next one to permit would go
4 above the next.

5 Q So if we assume that Gulf built this pole
6 as we see it with the primaries and the secondaries,
7 the transformers, street light -- and do you call it
8 flood light -- what kind of light do you call that
9 other light?

10 A A directional light.

11 Q Directional light. Assuming you had built
12 it exactly that way and looking at the Exhibit then,
13 when Bell South went up, it went in violation. When
14 Cox went up, it went in violation. And when KMC went
15 up, it went in violation? Is that right? It still
16 went in that order?

17 A I'd have to look at the numbers here again
18 and see.

19 Q IF you look at Exhibit 42 --

20 A Yes.

21 Q -- page three.

22 A It would appear that they would all be in

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1 violation.

2 Q Now, Mr. Bowen, we've talked about make-
3 ready and permitting probably more than we needed to,
4 but would Gulf Power have given permission to Bell
5 South to attach or to Cox or to KMC if its power
6 facilities were constructed this way at the time?

7 A I sure hope they wouldn't.

8 Q Did you go to look at any permits or see
9 if any make-ready requests had been submitted?

10 A I didn't check. No.

11 Q But it would be a violation of Gulf policy
12 to issue a permit for an attachment like this where
13 violations were made by virtue of the attachment? Is
14 that right?

15 A Yes.

16 Q Now if we look at the pole a little
17 closer, tell me if you can -- if this'll help you --
18 this pole picture is a little brighter -- I don't know
19 if you can see it on the other one, but if you look
20 between the two transformers, you can see somewhat of
21 a -- a shaded line and, in fact, if you look above it,
22 an area of the pole looks a little bit lighter than

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1 down below. Does that give you any hint as to whether
2 or not at some point in time before this picture was
3 taken Gulf facilities may have been located higher on
4 the pole than they are?

5 A I can't tell from seeing that photo.

6 Q If you could see different bolt holes in
7 different areas of the pole, would that help you at
8 all?

9 A If there's different bolt holes, it could
10 have been the transformers were changed out.

11 Q Is there a way to determine whether or not
12 those transformers were changed out from records of
13 Gulf Power?

14 A Well, if it was done during a storm, no.
15 If it was done on a normal maintenance, possibly.

16 Q Now is there any way to tell as well --
17 where is the picture -- I am not as good as this as
18 Ms. Corbyn -- so there it is -- from the pictures on
19 the back side, as you look up, do you see those holes?

20 Could that give you an indication maybe just how
21 they're set? And if you can look at this pole right
22 here, can you see that there's even a -- a bit of a

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1 square washer outline around it? Could that help you
2 maybe understand -- maybe the transformers were
3 located higher on the pole at some point?

4 A Mr. Seiver, all I see is knots on the
5 pole. I'm not really sure where we're going.

6 Q I'm going to magnify the picture we were
7 just looking at.

8 A Yes.

9 Q Can you see better now the whole that
10 looks like it has a square around it? Does that help
11 understand that maybe some of the equipment on the
12 pole was higher at some point in time?

13 A Yes, it does look there was a washer
14 there. Yes.

15 Q Now would you also be able to determine,
16 as we look at this pole, as we go down -- I'm going to
17 go back in resolution to where we were -- looking at
18 the -- actually, look at that -- I don't need a -- if
19 you look at where the end of the riser shield is and
20 how everything else is configured, would it be
21 possible that the underground service was installed at
22 some point after the KMC, Cox, or Bell South

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1 attachments were made to the pole?

2 A Are you saying is it possible?

3 Q Yes.

4 A It is possible.

5 Q Now that would not be a -- a Gulf Power
6 policy to do an installation that violates the code,
7 right?

8 A It would not be.

9 Q And in fact, when we were talking about
10 the amount of pole space that would be attributed as
11 the power space, if we look at document page three for
12 Exhibit 42, where the secondary -- if we look at that,
13 which is also really the top of the riser shield is at
14 21.9, and I believe we agreed that the top of the pole
15 is 38-1/2 feet, approximately how much space would be
16 consumed by power facilities?

17 A You said I assume that there was a
18 particular height to the pole. Are we talking about
19 back to when -- earlier when we were talking about
20 just in general poles?

21 Q Well this is a 45-foot pole? Am I right?

22 A Yes, it is.

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EXHIBIT 3 – Attachment 3

Declaration of John Eichhorn

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C.

In the Matter of)	
)	
Implementation of Section 224 of the Act;)	WC Docket No. 07-245
Amendment of the Commission's Rules and)	
Policies Governing Pole Attachments)	
)	

DECLARATION OF JOHN EICHHORN

I, John Eichhorn, do hereby state:

1. I am Regional Director of Construction for the Maryland and Delaware region for Cable Communications Management, LLC ("Comcast"). I am responsible for outside plant construction, including pole attachment matters, for Comcast in Maryland and Delaware. Prior to my current position (which began in March 2004), I served in Comcast's Technical Operations department with responsibilities involving outside plant construction in a number of capacities since July 1983.

2. With regard to pole attachments, Comcast relies heavily upon utility owned and controlled poles in order to construct cable television plant to distribute video, data and voice services to its subscribers. Comcast obtains the right to attach to poles through negotiated pole attachment agreements with utilities that set forth the price, terms and conditions for attachment. Although precise terms vary among these agreements, the following provisions are common to virtually every pole attachment agreement with which I am familiar:

- Comcast must submit an application and wait for approval from the utility before new facilities can be attached to the poles. In the case of jointly owned poles, Comcast typically must submit an application to both utilities, and wait for approval from both entities;

- If after an engineering review by the pole owning utility it is determined that one or more poles cannot accommodate the proposed attachments without the rearrangement of existing attachments or the replacement of one or more poles with taller or stronger poles to comply with safety requirements, Comcast's application will not be approved unless and until Comcast has prepaid for the cost of such rearrangements or replacements. This process of preparing a pole for hosting new third-party attachments is known as make-ready which, as prescribed by federal law, is the obligation of the new attacher. To provide a sense of the financial scale, a pole replacement typically costs Comcast between \$6,000 to \$12,000 per pole. These poles become the property of the utility and Comcast then pays rent for attachments to them;
- In many cases, the make-ready required to be accomplished and paid for by Comcast involves paying to correct pre-existing safety violations caused by the telephone and/or electric utility;
- Following installation of attachments, Comcast must then pay for the cost of post-construction inspections by the utility. Telephone companies are not typically subject to this requirement for their new attachments; and
- Pole agreements also often contain numerous one-sided provisions favoring the utility including self-help remedies, burdensome audit and safety inspection practices and charges, termination rights and security requirements.

3. My area of responsibility includes territory where Verizon has been constructing its fiber to the premises ("FTTP) FiOS network over the past 3 years. Specifically, the FTTP/FiOS system has been constructed by installing fiber and other facilities on many of the same poles on which Comcast has existing cable television plant in Baltimore County and other areas in Maryland. In the Baltimore area, Verizon has a joint ownership agreement with electric utility Baltimore Gas and Electric Company ("BGE") with regard to poles on which both companies are attached ("BGE Poles").

4. Compared with the requirements imposed on Comcast before it is authorized to attach to a BGE Pole (application, engineering review, make-ready and post construction inspection), Verizon's rights are far superior. For example, Verizon makes attachments without

submitting applications or waiting for third party engineering reviews or utility approval and thus can deploy its plant far more quickly and cheaply than Comcast. Comcast must file applications with Verizon and BGE to make additional attachments to BGE Poles, which gives Verizon the ability to slow Comcast's efforts in an anti-competitive manner. Verizon does not typically perform any make-ready even where the installation of its facilities creates safety violations to Comcast, BGE and other attachers. Following the installation of new attachments, Comcast pays the cost of post-construction inspections conducted by BGE. However, Verizon is not subject to these inspections and avoids not only the inspection cost but also the expense of correcting the safety code violations caused by its construction.

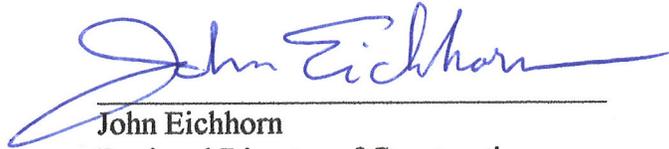
5. Verizon's attachments place far more physical stress and load on the poles than Comcast's attachments. Not only does Verizon typically have two or three different attachments on a single pole (compared to Comcast's single attachment) but the Verizon attachments are also far heavier than Comcast's attachments.

6. As illustrated in Attachment 1 to Exhibit 3, during the course of Verizon's FiOS construction in the Baltimore area, it has routinely installed its attachments disregarding safety codes thereby creating NESC violations with Comcast's facilities and in some cases creating compliance issues between Comcast's and BGE's facilities. I have personally complained on many occasions to Verizon and BGE in writing and orally regarding these unsafe practices, however, Verizon's practices persist. Comcast experiences similar unsafe construction practices by other utilities located around the country, including investor owned, municipal and cooperative electric utilities as identified in Attachment 1.

7. I have reviewed Attachment 1 to Exhibit 3 to the Comments of Comcast in the above captioned proceeding and state that it is a true and correct representation of data and

photographs in Comcast's possession compiled by company representatives.

I declare under penalty of perjury that the foregoing is true and correct.



John Eichhorn
Regional Director of Construction
Comcast Cable Communications
Management, LLC

March 5, 2008

FILE

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates.)	Case No. 08-709-EL-AIR
)	
In the Matter of the Application of Duke Energy Ohio, Inc., for a Tariff Approval.)	Case No. 08-710-EL-ATA
)	
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods.)	Case No. 08-711-EL-AAM
)	
In the Matter of the Application of Cincinnati Gas & Electric Company for Approval of its Rider BDP, Backup Delivery Point.)	Case No. 06-718-EL-ATA
)	

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PUCO

TESTIMONY OF

PATRICIA KRAVTIN

ON BEHALF OF

OHIO CABLE TELECOMMUNICATIONS ASSOCIATION

February 26, 2009

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
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 - 4: Pole Attachment Rate Formula Calculations
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 - 6: Excerpts of Donald Storck's deposition dated January 29, 2009
 - 7: Excerpts of James Dean's deposition dated January 30, 2009
 - 8: Excerpts of James Dean's deposition dated December 15, 2008
 - 9: Duke's responses to discovery requests cited in this testimony
 - 10: Excerpts of Steve Adams' deposition dated January 30, 2009
 - 11: Excerpts of Duke's CPR Ledger Detailed Asset Report for Plant Account 364
 - 12: Work orders in OCTA Deposition Exhibits cited in this testimony
 - 13: Excerpts of Ulrich Angleton's deposition dated December 15, 2008
 - 14: Excerpts of Teresa Brierly's deposition dated December 15, 2008
 - 15: Excerpts of Donald Storck's deposition, dated November 21, 2008
-

1
2

INTRODUCTION

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

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

7 **Qualifications**
8

9 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL**
10 **BACKGROUND.**

11 A. I received a B.A. with Distinction in Economics from the George Washington University.
12 I studied in the Ph.D. program in Economics under a National Science Foundation Fellowship at
13 the Massachusetts Institute of Technology (M.I.T.). My fields of concentration at M.I.T. were
14 government regulation of industry, industrial organization, and urban and regional economics.
15 My professional background includes a wide range of consulting experiences in regulated
16 industries. Between 1982 and 2000, I was a consultant at the national economic research and
17 consulting firm of Economics and Technology, Inc. (ETI) in that firm's regulatory consulting
18 group, where I held positions of increasing responsibility, including Senior Vice President/Senior
19 Economist. Upon leaving ETI in September 2000, I began my own consulting practice
20 specializing in telecommunications, cable, and energy regulation and markets.

1 I have testified or served as an expert witness on telecommunications matters in proceedings
2 before over thirty state, provincial, and federal regulatory commissions, including the Federal
3 Communications Commission (“FCC”), the Federal Energy Regulatory Commission (“FERC”),
4 and the Canadian Radio-television and Telecommunications Commission (“CRTC”). In
5 addition, I have testified as an expert witness in antitrust litigation before a number of United
6 States district courts on matters relating to telecommunications competition, market power, and
7 barriers to entry, and in regard to Section 253 of the Telecommunications Act of 1996 (“the
8 Act”) concerning use of public rights-of-way. I have also testified before a number of state
9 legislative committees and served as advisor to a number of state regulatory agencies.

10 **Q. COULD YOU BRIEFLY DESCRIBE YOUR EXPERIENCE OF PARTICULAR**
11 **RELEVANCE TO THIS PROCEEDING**

12 A. Yes. I have testified as an expert concerning access to poles, ducts, conduits, and rights-
13 of-way before state, provincial, and federal agencies on numerous occasions. Most recently, I
14 submitted expert reports in the Federal Communications Commission’s current pole attachment
15 rulemaking proceeding (WC Docket No. 07-245, RM 11293, RM 11303). I also submitted a
16 declaration in the FCC’s earlier pole attachment proceeding, CS Docket No. 97-98.
17 Additionally, I submitted testimony before the FCC in pole attachment complaint proceedings
18 brought against electric utilities Gulf Power and Dominion Virginia Power. At the state level, I
19 have testified on pole attachment rates, terms and conditions pertaining to electric utilities before
20 the New Jersey Board of Public Utilities, the Arkansas Public Service Commission, and the
21 Ontario Energy Board. I have also testified on matters pertaining to access to poles and conduit
22 of incumbent local exchange carriers (“ILECs”) in proceedings before the Georgia Public

1 Service Commission, the South Carolina Public Service Commission, the Public Service
2 Commission of the District of Columbia, and the New York Public Service Commission.

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

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

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

8 A. I have relied on my education, training, research, and experience in economic analysis,
9 and my prior experience in the areas of telecommunications and utility regulation as outlined
10 above and further detailed in Attachment 1. I have considered various data and information in
11 forming my opinions, including data available on the Federal Energy Regulatory Commission
12 (“FERC”) Form 1 for Duke Energy-Ohio (“Duke”), and materials produced in the discovery
13 taken in this matter.

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

16 A. I am being compensated for the time I spend on this matter at my standard rate of \$375
17 per hour. I will also be reimbursed for any travel and miscellaneous out-of-pocket expenses
18 incurred in connection with this litigation. My compensation is not contingent on the outcome of
19 this litigation or my analysis.

1 **Purpose and Summary of Testimony**

2

3 **Q.CAN YOU PLEASE DESCRIBE YOUR ASSIGNMENT AND THE PURPOSE OF**
4 **YOUR TESTIMONY?**

5 A. I was asked by counsel for the Ohio Cable Telecommunications Association (“OCTA”) to
6 provide testimony on matters raised in this proceeding pertaining to cable company rental of
7 space on Duke’s poles and conduit (hereafter referred generically as “pole attachments”). My
8 testimony will address the appropriate rental rates that Duke should be permitted to charge cable
9 operators for pole attachments as well as the terms and conditions under which Duke would
10 provide access to these essential facilities. In particular, my testimony will provide specific rate
11 results for pole and conduit rentals derived from a proper application of the rate formula adopted
12 by the Public Utilities Commission of Ohio (“PUCO”) based on the well-established FCC
13 formula, including any adjustments required to ensure the accuracy and integrity of the
14 underlying data inputs upon which the formula relies.

15 My testimony will also address the economic and policy reasons for setting pole attachment
16 rental rates below the maximum rate established by the formula and closer to the lower range of
17 reasonable rates, i.e. marginal costs, permitted under Section 224 of the Communications Act.
18 Finally, my testimony addresses the importance of setting terms and conditions for pole
19 attachment rentals that do not lend themselves to discretionary, discriminatory application and
20 that would allow the utility, as the monopoly owner of the poles, to impose excessive costs on
21 third-party cable attachers that competitively disadvantage the cable operator vis-à-vis the utility,
22 an affiliate or other company in which the utility has an interest, or the incumbent telephone
23 company, for which the potentially onerous terms and conditions do not apply.

1 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

2 A. This testimony addresses and explains the following main points:

3

4 • In adopting the FCC formula for setting rates for pole attachments, the PUCO joined the
5 overwhelming majority of states who rely on the FCC approach in setting rates for third-
6 party occupancy of essential utility pole and conduit facilities. The FCC formula has
7 withstood the test of time as a straightforward, cost-based approach for determining just and
8 reasonable rates for pole and conduit attachments.

9

10 • A major feature of the FCC formula is that it can be applied with a minimum of private,
11 administrative effort using publicly available information reported in the FERC uniform
12 reporting system and involving little if any regulatory intervention. In Ohio, because pole
13 rates are tariffed and set within the context of a formal rate proceeding, data inputs to the
14 formula may be rate case numbers that vary from those reported on the FERC Form 1.

15

16 • In applying the FCC pole rate formula in this case, there are several areas where Staff has
17 substituted rate case numbers in place of those reported on the FERC Form 1. These include
18 the use of data adjusted to conform to the rate year (twelve months ending March 2008),
19 certain investment and expense data generated internally by the utility, and Staff's own
20 recommendations for certain inputs such as rate of return and depreciation accrual rate.

21

22 • Because the areas where Staff's pole rate formula calculation diverges from the FCC
23 methodology have been subject to a rate case quality review by Staff, I am generally
24 accepting of Staff's methodology. I have relied on the same input data used by Staff in my
25 own rate calculations, with only a couple of exceptions necessary to correct for demonstrated
26 inaccuracies and inconsistencies relating to Duke's pole plant (account 364) accounting data,
27 with respect to underlying pole investment dollars and units in service (i.e. pole count).

28

29 • My correction to the pole count figure is necessary to remove an internal inconsistency
30 between the numerator and the denominator of the net bare pole cost component of the

1 formula. I make an upward adjustment to the pole count number used in the denominator to
2 reflect the test year period (twelve months ending 2008 as opposed to calendar year 2007),
3 consistent with the net pole investment figure used in the numerator. To make this
4 adjustment, I apply the same proportional increase to the number of poles in service that
5 Duke made to its own gross pole plant investment figure to conform it to the test year period.
6

- 7 • My correction to the pole investment dollars is necessary to remove inaccuracies in the data
8 resulting from the inclusion of unreliable and undocumented General Ledger 106 accounting
9 data, and the apparent inconsistency between Duke's pole count figure and pole investment
10 amounts recorded in GL 106. My pole rate calculations rely on the amount of pole plant
11 booked to Duke's GL 101 (Plant in Service) account as reported in Duke's Continuing
12 Property Records. Because the CPR data is of year-end 2007, I have adjusted those amounts
13 upward to conform to the rate case test year, along with corresponding upward adjustments
14 to both accumulated depreciation and accumulated deferred tax amounts.
15

- 16 • Revisions made by Duke in this rate case to its GL 106 accounting for poles (account 364)
17 are not sufficiently supported or comprehensive so as to satisfy the standard of transparency
18 and accuracy inherent in the FCC formula methodology. Plus, the scant documentation that
19 Duke has provided with respect to its revisions raises even more questions about the
20 seemingly arbitrary and undocumented nature of Duke's GL 106 estimating process, both as
21 it pertains to the original assignment to account 364 and the recent revisions.
22

- 23 • Another very important reason why GL 106 account 364 amounts should not be included in
24 the pole investment used in the rate formula calculation is that doing so would result in an
25 apparent mismatch between the pole investment number and the pole count number used to
26 derive the net bare pole cost component of the formula. The net bare pole cost component is
27 derived by dividing booked pole investment dollars by a number of poles identified by the
28 utility. Therefore, including investment associated with multiple prior years of "non-
29 unitized" investment (such as included in Duke's GL 106 accounting for poles) in the
30 numerator, without including the additional number of poles corresponding to that pole plant
31 in the denominator (as occurs given inherent time lags in Duke's classifying and

1 inventorying processes), if uncorrected, will result in an over-statement of the net bare pole
2 cost and the pole rate derived on the basis of that cost.

3
4 • After making needed corrections to the data inputs (i.e., gross up to pole count figure to
5 conform to the rate year, and removal of the unreliable GL 106 pole investment amounts), I
6 calculate a maximum pole rental rate of **\$6.05** per pole per year for one foot of space. My
7 calculation confirms the reasonableness of Staff's moderated approach limiting the pole rate
8 increase to 50% of the existing \$4.25 rate or \$6.40, but shows that even Staff's moderated
9 proposed rate increase is higher than justified based on cost.

10
11 • As an independent check on the reasonableness of my rate formula result, I have compared
12 my result for Duke Energy-Ohio with formula rate results and/or rates in effect for other
13 Duke Energy utilities as well as other peer utilities in Ohio. The benchmark analysis that I
14 perform indicates my pole formula rate calculation, and even more so Staff's, produces a rate
15 that is relatively high as compared to a peer group of comparable electric utilities.

16
17 • A pole attachment rate below \$6.00, and closer if not equal to, the existing pole attachment
18 rate of \$4.25, is supported on important economic and policy grounds. Even at the current
19 rate, and especially accounting for make-ready charges cable operators pay in addition to the
20 rental rate, Duke stands to recover *much more* than its marginal cost of attachment. From an
21 overall societal standpoint, the closer the rate Duke charges is to marginal cost, the more
22 efficient the outcome in terms of maximizing the productive use of societal resources,
23 maximizing the value to consumers (most of whom are also electricity subscribers) accruing
24 from the benefits of competitive market performance in the final (broadband) service market,
25 and enhancing productivity and economic development opportunities in the state.

26
27 • Like poles, conduits are "essential facilities" capable of serving as bottlenecks to facilities-
28 based competition for which cable operators have not had similar opportunities to construct
29 their own structures or to join together to share a common facility as have incumbent
30 telephone and electric utilities in the past. Accordingly, the economic and policy reasons in
31 support of using the regulatory formula rate for poles applies just as forcefully to conduit.

- 1 • Applying the FCC rate formula for conduit to Duke's fully allocated cost for the test year
2 ending March 31, 2008, using specific rate case data when available and the FCC's one-half
3 duct presumption (i.e., attributing one-half of the conduit capacity to the attacher), I calculate
4 a maximum rental rate of **\$0.55** per duct foot of conduit occupied. To the extent data is
5 available to the PUCO that would support use of a higher number of inner ducts for Duke, in
6 keeping with FCC policy, that number should be used in the conduit rate formula in lieu of
7 the half-duct convention. For example, with an average of three inner ducts per conduit,
8 Duke's maximum rental rate would be only **\$0.36** per duct foot of conduit space.
9
- 10 • In addition to an excessive attachment rate, Duke's proposed tariff contains a number of
11 terms and conditions that also work to undermine the effectiveness of pole attachment
12 regulation in stemming monopoly abuses, some, but not all of which are addressed by Staff.
13 Many of the proposed provisions would enable the utility to further exploit its monopoly
14 ownership of the pole network and engage in anticompetitive behavior by creating barriers to
15 entry and other impediments to competition in the final service market (i.e. broadband).
16
- 17 • Effective regulatory oversight of both price and non-price aspects of pole attachment
18 regulation is needed to help ensure an outcome that appropriately balances the interests of the
19 utility and the third-party attacher, and at the same time promotes the public policy goals of a
20 competitive telecommunications market and the widespread deployment of advanced
21 information-age services and technology. There are several important and interrelated
22 economic and public policy criteria underlying a set of core principles for the PUCO to apply
23 in evaluating the appropriateness of individual tariff provisions. These include competitive
24 neutrality, effectively competitive or free market, cost causation, and the public interest.
25
- 26 • Numerous provisions in Duke's proposed tariff are shown to violate these core principles of
27 effective regulation, including among others, provisions for new, excessively high penalties
28 for unauthorized attachments and safety violations that would apply on a discriminatory and
29 punitive basis to third-party cable attachers, and provisions that would give Duke unfettered
30 discretion as to whether to permit an additional attachment, the type of attachment that would
31 be permitted, the services that could be provided over the attachment, the expiration of the

1 agreement, and all other terms and conditions and other requirements applicable to the
2 attachment including costs that can be recovered from the third-party attacher pertaining to
3 pole replacements and rearrangements.
4

5 **POLE ATTACHMENT RATES**
6

7 **The PUCO formula, by tracking the well-established FCC formula, is a reasonable,**
8 **economically appropriate, cost-based approach for determining just and reasonable pole**
9 **attachment rates.**
10

11 **Q. PLEASE DESCRIBE THE GENERAL APPROACH FOLLOWED BY THE PUCO**
12 **WITH RESPECT TO SETTING RATES FOR POLE ATTACHMENTS BY CABLE**
13 **OPERATORS AND OTHER THIRD PARTY ATTACHERS.**

14 A. The formula adopted by the PUCO in 1982 for setting rates for utility pole attachments tracks
15 the formula established by the FCC for this purpose.¹ In adopting the FCC formula, the PUCO
16 joined the overwhelming majority of states who rely on the FCC approach in setting rates for
17 conduit and pole attachments.² The FCC formula has withstood the test of time as a
18 straightforward and economically appropriate approach for determining just and reasonable pole

¹ See PUCO Case No. 81-1338-TP-AIR, *In the Matter of the Application of Cincinnati Bell for Authority to Adjust its Rates and Charges and to Change Its Tariffs*, Opinion and Order, dated January 7, 1983, see also PUCO Case Nos. 81-1058-EL-AIR, 82-654-EL-ATA, Opinion and Order dated December 5, 1982.

² 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).

1 attachment rates and conduit rentals. A key attribute of the FCC methodology is that it is based
2 on publicly reported and verifiable data.³

3 **Q. WHAT DO YOU MEAN WHEN YOU SAY THE FCC FORMULA IS AN**
4 **ECONOMICALLY APPROPRIATE APPROACH TO SETTING RATES?**

5 A. The FCC formula is an economically appropriate approach in that it follows cost allocation
6 principles well-established in the economics literature. Under the FCC methodology, the
7 recovery of the cost of the pole attachment is based upon the concept of cost causation (i.e., cost-
8 causer pays). Such costs reflect costs that would not be borne by the utility *but for* the attacher,
9 including a normal (reasonable) return to capital. Costs designed in this manner prevent any
10 potential situation of cross-subsidy between the utility pole owner and the third-party attacher.

11 The principle of cost causation is firmly established in Section 224 of the Communications Act
12 upon which the FCC formula for pole attachments is based. Consistent with the principle of cost
13 causation, Section 224(d) links the pole attachment rental to marginal costs, by establishing a
14 range of reasonableness that has marginal costs as a lower bound, and fully allocated cost as an
15 upper bound. The actual FCC rate formula adheres to the *greater* fully allocated cost standard
16 described in Section 224(d), which by definition, allows the utility to recover through the rental
17 rate ongoing costs *much more* than marginal cost.⁴ It does so by allowing recovery of a cost-
18 causative portion of the utilities' operating expenses and actual capital costs (including overall
19 return to capital) attributable to the entire pole or conduit, based on booked costs.

³ In the case of electric utilities, there are a couple of exceptions where the data relied on in the FCC rate formula is provided from the internal records of the utility. The first is the number of poles, or number of duct feet of conduit. The second is the depreciation accrual rate at the plant account level.

⁴ See *Alabama Power*, 311 F.3d at 1363, 1370.

1 **Q. DESCRIBE HOW THE FCC CABLE FORMULA ALLOCATES A COST-**
2 **CAUSATIVE PORTION OF THE UTILITY'S COSTS ASSOCIATED WITH THE**
3 **ENTIRE POLE.**

4 A. Under the FCC cable formula, the costs of the entire pole - including both direct (usable) and
5 common (unusable) space alike - are allocated to an attacher based on an attacher's occupancy of
6 usable space on the pole. The costs associated with a third-party pole attachment are causally
7 linked to the amount of space occupied by the attachment, since those costs vary with the relative
8 use or occupancy of space by those attaching entities and *not* according to the number of
9 attaching entities.

10

11 This concept of a cost-causative linkage based on the relative use or direct occupancy of space is
12 a common and widely-accepted practice in the leasing of property and other facilities throughout
13 the private and public sectors of the economy. The cost allocation approach embodied in the
14 cable rate formula follows cost causation principles in a manner directly analogous to other well
15 accepted familiar contexts, such as an apartment house, as cited in the legislative history of the
16 1978 Pole Attachments Act:

17 The renter of one of the ten units pays the cost of that unit plus one-tenth of the cost
18 of all common areas. He does not pay one-half the cost of the common areas just
19 because only one other person occupies the other nine units, but rather he pays his
20 one-tenth share of all the costs attributable to the building.⁵
21

22 With the apartment building analogy serving as a model, Congress specifically designed the
23 cable formula to allocate an appropriate share of the cost of the entire pole to cable attachers.

⁵123 Cong. Rec. 5080 (1977)(Statement of Rep. Wirth).

1 Cable would pay its share of not just the costs of...usable space but of the total costs
2 of the entire pole, including the unusable portion (below grade and between
3 minimum clearance levels.) This allocation formula reflects the concept of relative
4 use of the entire facility. To the extent that a pole is used for a particular service in
5 greater proportion than it is used for another service, the relative costs of that pole
6 are reflected proportionately in the costs of furnishing the service which has the
7 greater amount of use.⁶

8
9 **Q. WHAT IS THE FCC FORMULA FOR CALCULATING THE MAXIMUM RENTAL**
10 **RATE FOR POLES AS APPLIED TO ELECTRIC UTILITIES?**

11 A. Consistent with Section 224(d) of the Communications Act and the principles of cost
12 causation explained above, the FCC formula calculates a maximum annual pole attachment rent
13 for cable operators by taking the sum of the actual capital costs and operating expenses of the
14 utility attributable to the entire pole and multiplying that number by a allocator based on the
15 attacher's relative use of the pole. In practical terms, the formula consists of the following three
16 major components: (1) the net investment per bare pole, (2) a carrying charge factor, and (3) the
17 percent of capacity (i.e., total usable space) occupied by an attacher.⁷

18 Expressed as an equation, the FCC formula applicable to cable operators is as follows:

19
20 *Maximum Pole Rental Rate =*

21
22 *[Net Bare Pole Cost] x [Carrying Charge Factor] x [Usage Percentage]*
23
24

25 Attachment 2 to my testimony describes in detail each of the three major components of the FCC
26 pole attachment formula and how they are applied in the formula for electric utilities.

⁶ S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977) (emphasis added).

⁷ See *FCC Consolidated Partial Order on Reconsideration, CS Docket 97-98, 97-151, FCC 01-170 (FCC 2001 Pole Order)*, at Appendix D-2 (May 25, 2001) (setting forth the specific formulas and FERC accounts to be used when calculating the pole rate for electric utilities).

1 **Based on appropriate corrections to certain data inputs used in Staff's calculation of the**
2 **pole rate formula, Duke should be allowed to charge cable operators an annual pole rental**
3 **rate of no more than \$6.05 per foot of pole space.**
4

5 **Q. GIVEN THE STATE OF OHIO IS CERTIFIED TO REGULATE POLE**
6 **ATTACHMENTS, ARE THERE AREAS WHERE THE PUCO'S APPLICATION OF**
7 **THE POLE RATE FORMULA MAY DIVERGE FROM THE FCC**
8 **METHODOLOGY?**

9 A. Yes, there are. The overarching concept underlying the FCC formula is that it can be applied
10 in a straightforward manner, using publicly available information as reported in the FERC
11 uniform reporting system, such that it can be updated annually with a minimum of private,
12 administrative effort, and little if any regulatory involvement. In Ohio, pole rates are tariffed and
13 set within the context of a formal rate proceeding, where many of the data inputs to the formula
14 are subject to independent review and determination. The corresponding figures for formula
15 inputs which are provided in the rate case filings may vary for a host of reasons from the
16 numbers publically reported by the utility in the FERC Form 1 reporting system. In applying
17 the FCC pole rate formula in this case, there are a number of areas where Staff has substituted
18 rate case numbers in place of publicly reported data from the FERC Form 1.⁸

19 **Q.PLEASE IDENTIFY THOSE AREAS WHERE STAFF'S APPLICATION OF THE**
20 **POLE RATE FORMULA DIVERGES FROM THE FCC METHODOLOGY.**

21 A. First, in most, but not all cases, Staff's application of the pole rate formula relies on input data
22 that conform to the test year of the rate case, i.e., the twelve months ending March 31, 2008,

⁸ See Staff Report at 23-24.

1 whereas the FCC methodology relies strictly on calendar year-end data as reported in the annual
2 FERC Form 1 reporting system. For purposes of this case, the latest FERC Form 1 data
3 available is for the calendar year 2007, i.e., the twelve months ending December 31, 2007.

4 Second, in the computation of accumulated deferred income taxes (used in the calculation of net
5 plant investment), Staff includes FERC Account 255 (Accumulated Deferred Investment Tax
6 Credits) in accordance with PUCO rate case practice, in addition to the four accounts (Accounts
7 281, 282, 283, and 190) included in the FCC methodology.

8 Third, Staff relies on input data generated from Duke's internal accounting records at a level of
9 disaggregation below that publicly available in the FERC uniform reporting system. For
10 accumulated depreciation (used in the calculation of net plant investment), Staff relies on data
11 provided by Duke at the level of the individual plant account, whereas the lowest level of
12 aggregation in the FERC Form 1 for accumulated depreciation is at the level of total distribution
13 plant. For accumulated deferred taxes, and also for the tax and administrative & general expense
14 components of the carrying charge factor, Staff relies on data provided by Duke at the level of
15 distribution plant, whereas the lowest level of aggregation in the FERC Form 1 for these items is
16 at the level of total electric plant in service.

17 Fourth, for the rate of return component of the carrying charge factor, Staff uses the midpoint of
18 the rate of return range it is recommending the PUCO adopt in this case, which is calculated at
19 8.61%. The FCC formula dictates the use of an actual rate of return authorized by the state
20 commission, where one is available. The last authorized rate of return by the PUCO was 8.24%.

1 Finally, Staff uses its recommended depreciation accrual rate of 2.23% for pole plant in the
2 calculation of the depreciation carrying carry factor, where the FCC formula would rely on a
3 utility-provided accrual rate.

4 **Q. DO YOU ACCEPT THE AREAS OF DIVERGENCE FROM THE FCC FORMULA**
5 **REFLECTED IN STAFF'S POLE RATE CALCULATIONS FOR PURPOSES OF**
6 **THIS RATE CASE?**

7 A. Yes, I do. As a general proposition, it is acceptable to rely on numbers internally generated
8 by the utility (and/or recommended by the staff) in applying the FCC rate formula in the context
9 of a general rate proceeding such as this case, where those numbers have been subject
10 theoretically to a full and comprehensive rate case review by commission staff or some other
11 third party, and otherwise appear to be accurate and reasonable figures. Of course, absent a full
12 and comprehensive rate case quality review of the utility's operations and finances, there is the
13 danger that parties would selectively propose adjustments in a manner that would be to that
14 party's own pecuniary interest to do so.

15 Because the areas where Staff has diverged from the FCC methodology have been subject to a
16 rate case quality review by Staff, I am generally accepting of Staff's methodology. In particular,
17 I have relied on the same input data used by Staff in its pole rate formula calculations in my own
18 rate calculations (presented in Attachment 4 to this testimony), with only a couple of exceptions
19 necessary in my opinion to correct for demonstrated inaccuracies and inconsistencies relating to
20 Duke's pole plant (Account 364) accounting data, with respect to both underlying investment
21 dollars and units in service (i.e., pole count). With respect to the rate of return input, I believe it
22 is acceptable to use the midpoint of the range of the rate of return recommended by Staff in this

1 case, but only as a temporary placeholder for the actual rate of return authorized by the PUCO in
2 this case. Similarly, I am comfortable using Staff's recommended depreciation accrual rate as a
3 proxy for the accrual rate authorized by the PUCO, subject to change should the PUCO adopt a
4 different rate.

5 **Q. PLEASE EXPLAIN THE CORRECTION YOU MADE TO STAFF'S POLE RATE**
6 **CALCULATIONS REGARDING THE UNITS OF POLES IN SERVICE.**

7 A.As explained above, Staff's pole rate calculations, like the other rate case analyses presented
8 in the Staff Report, are based on a test year defined as the twelve months ending March 31, 2008.
9 However, the number of poles Staff uses in the rate formula to calculate the net bare pole cost is
10 a pole count (248,901) identified by Duke to be as of the end of the calendar year 2007.⁹ I
11 believe the mismatch arose because the original Duke pole rate calculation upon which Staff
12 built its own analysis was calculated on a calendar year basis using 2007 FERC Form 1 data
13 consistent with the FCC methodology.¹⁰ Duke subsequently revised most of the data inputs used
14 in its pole rate calculation to reflect rate case test year period data rather than 2007 FERC Form 1
15 data, including a gross-up of both the dollar amount of gross pole plant and accumulated
16 depreciation among others. However, Duke did not correspondingly gross-up its pole count
17 figure, which is particularly problematic given the way the formula computes net pole plant
18 investment.

19 **Q.WHY IS IT SO IMPORTANT TO GROSS-UP THE POLE COUNT TO REFLECT A**
20 **RATE YEAR NUMBER CONSISTENT WITH OTHER FORMULA INPUTS?**

⁹ See Testimony of Donald Storck, Attachment DLS-2.

1 A. The net bare pole cost component of the formula is calculated by taking net pole plant
2 investment and dividing it by the number of poles in service (see Attachment 2 to this testimony
3 for a detailed description of the FCC pole rate formula). Thus, there is an internal inconsistency
4 between the numerator and the denominator of the calculation if the numerator is adjusted
5 upward, but the denominator is not. The correction I made was a corresponding upward
6 adjustment to the pole count number (i.e., the denominator of the net bare pole cost calculation)
7 to reflect the test year period, consistent with other rate case test year data Staff relies on in its
8 formula and which I have accepted for purposes of this rate case. I made this correction by
9 simply applying the same proportional increase (1%) to the number of poles in service that Duke
10 made to its gross pole plant figure to reflect the rate case test year period versus the calendar year
11 2007. The result is a revised pole count for the test year of 251,358. (The pole count adjustment
12 is shown in Attachment 4 to this testimony containing my pole rate formula calculations).

13 **Q. IS IT PROBLEMATIC TO RELY ON A POLE COUNT THAT REFLECTS AN**
14 **ESTIMATED VERSUS ACTUAL NUMBER OF POLES IN SERVICE FOR**
15 **PURPOSES OF THE POLE RATE FORMULA?**

16 A. While it would be preferable to use an actual versus estimated pole count figure in the rate
17 formula calculation, the fact is that the year-end 2007 pole count figure that Duke identified and
18 that Staff uses in its pole rate calculation is itself not a publicly reported number. Duke's pole
19 count figure has not been independently validated by Staff or any other third party as
20 representing an accurate or actual count of poles in the field. Duke's pole count figure came
21 from the GIS geographical data base referred to as the "Small World System" and was given to

¹⁰ Id.

1 Duke witness Donald Storck in an email from a Duke employee named Nancy Musser.¹¹
2 According to Mr. Storck's deposition testimony, that email is the only documentation he has in
3 support of Duke's pole count number.¹²

4 Moreover, it does not appear possible to reconcile the pole count number from Duke's GIS or
5 Small World system with the detailed asset reports contained in the Continuing Property Records
6 (CPR) General Ledger accounting for plant account 364 - the source of pole plant investment
7 dollars used in the rate formula.¹³ Duke accounting witness James Dean indicated he was
8 generally unfamiliar with the pole count generated from the GIS and the manner in which it was
9 determined.¹⁴ Duke was specifically asked in discovery to identify the number of distribution
10 poles in service as of year-end 2007 that were not recorded in the CPR Ledger for plant account
11 364, and in response Duke indicated there were no pole counts contained in the CPR.¹⁵

12 **Q. IS THERE ANOTHER REASON TO QUESTION THE ACCURACY OF DUKE'S**
13 **YEAR -END 2007 POLE COUNT NUMBER AND THAT FURTHER SUPPORTS**

¹¹ See Deposition of Donald Storck, dated January 29, 2009, at 12. (Excerpts of Donald Storck's deposition dated January 29, 2009, pertaining to this cite and those following, provided in Attachment 6 to this testimony.)

¹² Id.

¹³ See Deposition of James Dean, dated January 30, 2009 at 17-18. (Excerpts of James Dean's deposition dated January 30, 2009, pertaining to this cite and those following, provided in Attachment 7 to this testimony.)

¹⁴ Deposition of James Dean, dated December 15, 2008, at 43-44. (Excerpts of James Dean's deposition dated December 15, 2008, pertaining to this cite and those following, provided in Attachment 8 to this testimony.)

¹⁵ Duke Response to OCTA INT 03-031. (Duke's discovery responses cited in this testimony are provided in Attachment 9 to this testimony.) According to Duke: the "Continuing Property Records does not have a count of poles in service on pages 1-63 [GL 101] of the CPR Ledger," and that "Ledger entries made for in service accounting recorded in GL 106 do not reflect a number of poles in service." See also Duke Response to OCTA INT 03-32, where Duke further clarifies that while there is a column labeled "quantity" in the GL 106, it is an "accounting" quantity associated to these entries "[that] does not represent a quantity of poles added."

1 **MAKING A GROSS-UP ADJUSTMENT TO CONFORM THAT NUMBER TO THE**
2 **RATE YEAR?**

3 A. Yes. In addition to Duke not providing any real documentation in support of the accuracy of
4 the year-end 2007 pole count figure of 248,901 upon which Staff relies, the deposition testimony
5 of Duke witness Steve Adams describes a lag between the time poles are placed in service and
6 the point at which those poles would actually appear in a pole count generated by the GIS
7 system.¹⁶ Accordingly, even the 248,901 figure Duke identifies as the number of poles in service
8 as of year-end 2007 may understate the true number of poles in service as of that point in time.

9
10 **Q. CAN YOU SUMMARIZE THE ISSUES OF CONCERN YOU HAVE RAISED**
11 **REGARDING DUKE'S POLE COUNT FIGURE?**

12 A. Yes, there are several: (1) The time period of the count, i.e., as of year-end 2007, does not
13 conform to the rate year, i.e., twelve-months ending March 31, 2008, resulting in a mismatch
14 with most of the other data inputs in Staff's formula calculation, most notably, the pole plant
15 investment figure which is divided by the pole count in the rate formula; (2) There is no real
16 documentation supporting the number of poles identified by Duke as of year-end 2007; (3) Duke
17 is unable to identify the number of poles as of year-end 2007 that were not recorded in the CPR
18 Ledger, the source of pole plant investment dollars used in the rate formula; (4) It does not
19 appear possible to reconcile pole counts identified within Duke's geographic database with

¹⁶ Deposition of Steve Adams, dated January 30, 2009, at 11-13. (Excerpts of Steve Adams' deposition dated January 30, 2009, pertaining to this cite and those following, provided in Attachment 10 to this testimony.) According to Mr. Adams, "as jobs are designed in the field whether it's adding pole lines or gas mains or whatever the job is, that work is designed in the GIS system and eventually posted to the GIS system." The actual appearance of the pole counts in the GIS system does not occur until such time as an "office coordinator" makes changes to the original work request as designed in Small World to reflect those that have taken place in the field and closes out the job, "at which point those poles that were added will be available in the GIS system for others to see."

1 Duke's CPR accounting ledgers for plant account 364; and (5) Time lags in the field inventory
2 process suggest Duke's year-end 2007 pole count number is likely understated relative to the
3 actual number of poles in the field as of that date.

4
5 **Q. GIVEN THESE ISSUES OF CONCERN, WHAT HAVE YOU DETERMINED TO BE**
6 **THE MOST APPROPRIATE APPROACH TO FOLLOW WITH RESPECT TO THE**
7 **POLE COUNT FOR PURPOSES OF THE RATE FORMULA CALCULATION?**

8 A. Given the multiple issues of concern, and based upon my review of Duke's deposition
9 testimony and discovery responses, it would appear that a complete and accurate up to date
10 accounting of the number of poles in service (i.e., in the field) does not exist at the present time.
11 Absent a meaningful opportunity to validate Duke's original year-end 2007 pole count figure, or
12 to reconcile that count with the actual number of poles in the field as of March 31, 2008, I
13 believe the approach I have taken, i.e., to accept Duke's original year end 2007 pole count as a
14 given, but to then gross it up by the same proportion Duke applied to arrive at a test year amount
15 of gross pole plant, is the most reasonable option available to ensure a consistent test year
16 methodology and a more accurate rate result.

17 **Q. PLEASE EXPLAIN YOUR CORRECTION TO THE POLE RATE FORMULA**
18 **INVOLVING THE UNDERLYING PLANT 364 INVESTMENT AMOUNT.**

19 A. The Account 364 pole plant investment figure of \$225.3-million used in Staff's pole rate
20 formula calculation includes the balance in Duke's GL 101 (Plant in Service) for account 364
21 *plus* the revised balance in Duke's GL 106 (Completed Construction Not Classified) allocated to

1 account 364, adjusted to reflect the test year ending March 2008.¹⁷ The revisions Duke made in
2 this rate case to the GL 106 amounts allocated to account 364 are intended to correct for an
3 acknowledged overstatement of plant assigned to the pole account.¹⁸ In my opinion,
4 notwithstanding Duke's \$61.4-million downward adjustment to the GL 106 pole account in this
5 case, for the reasons detailed below, I do not consider the GL 106 pole account balance to be a
6 reliable or accurate data source for pole plant investment for purposes of the rate formula.
7 Because the amount of pole plant booked to Account 364 is such an integral component of the
8 pole rate formula, a pole rate calculation that relies on Duke's flawed GL 106 accounting is not a
9 reliable calculation and does not meet the standards of accuracy and transparency that are the
10 hallmark of the FCC rate formula methodology. In addition, as discussed further below, poles
11 associated with investment amounts recorded in GL 106 would not likely be included in a pole
12 count number generated by the GIS. Accordingly, there is an internal inconsistency in the rate
13 formula if one includes dollar amounts of pole investment recorded in the GL 106 with pole
14 counts generated by the GIS.

15 For purposes of my own pole rate calculations (provided in Attachment 4 to this testimony), I
16 rely instead on the amount of pole plant booked to Duke's GL 101 (Plant in Service) account as
17 of year-end 2007 ****This information is redacted. It refers to Depositions and Deposition*
18 *Exhibits submitted under seal on February 23, 2009****, adjusted upward to conform to the rate
19 case test year ****This information is redacted. It refers to Depositions and Deposition Exhibits*

¹⁷ See Staff Test Year Pole Attachment Rate Formula_ OH-As of 3-31-08 (excel spreadsheet).

¹⁸ See Staff Report at 4. "During its investigation, the Staff discovered that the Applicant's additions to account 364 for the year 2007 appeared to be overstated. Applicant subsequently revised the appropriate plant accounts and associated depreciation reserve. The Staff's adjustments are shown on Schedules B-2.2 and B-3.1."

1 submitted under seal on February 23, 2009***.¹⁹ I made corresponding adjustments to both the
2 accumulated depreciation and accumulated deferred tax amounts which are subtracted from
3 gross pole plant in service to arrive at a net pole plant investment figure in order to ensure an
4 “apples to apples” calculation.²⁰ While the GL 101 account may not have been subject to a
5 comprehensive review as part of this rate case proceeding, it does not suffer from the
6 documented inadequacies revealed in this proceeding relative to Duke’s GL106 accounting for
7 poles as described below.

8 **Q. PLEASE EXPLAIN THE KEY DIFFERENCES BETWEEN THE GL 101 AND 106**
9 **ACCOUNTS, AND THE BASIS FOR YOUR DECISION TO RELY ON POLE PLANT**
10 **BALANCES FROM ONLY THE 101 ACCOUNT FOR PURPOSES OF THE POLE**
11 **RATE FORMULA.**

12 A. By way of background, there are three distinct primary general ledger (GL) accounts where
13 investment in electric plant for major utilities is recorded under the FERC Uniform System of
14 Accounting.²¹ When plant investments are first made in conjunction with a work order, they are
15 placed in the GL 107 (Construction Work in Progress) account. As soon as the work order is
16 completed and the plant is put into service, the investments are moved into the GL 106

¹⁹The CPR Ledger Detailed Asset Report provided in Duke response to OCTA POD 01-004 Supplemental (OCTA Deposition Exhibit 14), pp. 54, 63, identifies a total GL 101 balance in Account 364 of ***This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009***, which I grossed up by roughly 1% to arrive at a test year amount of ***This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009***. The 1% adjustment factor I apply in my calculation is the same percentage increase Duke applied to dollars of gross pole plant to gross it up from year end 2007 to an amount that conforms to the test year ending March 31, 2008. (Excerpts of Duke’s CPR Ledger Detailed Asset Report for Plant Account 364 provided in Attachment 11 to this testimony.)

²⁰For accumulated depreciation, I applied the same percentage relationships reflected in Duke’s adjustment to accumulated depreciation for poles corresponding to Duke’s reductions in gross pole plant (resulting from the GL 106 revisions). The adjustment to accumulated deferred taxes occurred automatically within the formula calculation since that input is developed by a prorating method tied to the ratio of pole plant to total distribution plant.

1 (Completed Construction Not Classified) account. Finally, there is the GL 101 (Plant in Service)
2 account, where investment amounts are recorded following their final classification or
3 assignment to the detailed electric plant accounts (such as account 364 for poles) that comprise
4 the GL 101 (Plant in Service) account. With respect to Account 106 specifically, FERC
5 accounting rules prescribe as follows:

6 ...this account shall include the total of the balances of work orders for electric
7 plant which has been completed and placed in service but which work orders have
8 not been classified for transfer to the detailed electric plant accounts. NOTE: For the
9 purpose of reporting to the Commission the classification of electric plant in service
10 by accounts is required, the utility shall also report the balance in this account
11 tentatively classified as accurately as practicable according to prescribed account
12 classifications. The purpose of this provision is to avoid any significant omissions in
13 reported amounts of electric plant in service.

14
15 While the FERC rules dictate that the balances recorded in GL 106 should be as “accurate as
16 practicable,” they make clear that GL 106 entries are only “tentative” or temporary
17 classifications to support the stated purpose of this account, i.e., to avoid any significant
18 omission in reported amounts of electric plant in service.” By its very definition and design, GL
19 106 is not intended to provide a permanent or final classification record of plant in service or to
20 meet any particular standard of accuracy; rather that is the specific role of the GL 101
21 accounting, to ensure that the correct amounts are ultimately assigned to the detailed plant
22 accounts.²²

23

²¹See Part 101, 18 CFR Ch 1, see also Deposition of James Dean, dated January 30, 2009, at 21, 39 (Att. 7).

²²See Deposition of James Dean, dated January 30, 2009, at 49 (Att. 7).

1 **Q. HOW ARE THE INHERENT DIFFERENCES IN GL 106 AND 101 ACCOUNTING**
2 **REFLECTED IN DUKE'S ACCOUNTING CLASSIFICATIONS PROCESSES?**

3 A. The classification process by which Duke allocates pole plant investment associated with
4 individual work orders to GL 101 differs markedly from the process Duke uses to allocate pole
5 plant investment to GL 106. In the case of GL 101, it is my understanding that the dollar of pole
6 plant investment allocated to account 364 is derived using standard price factors for poles as
7 determined in Duke's Power Plant System (PPS) specific to the types of poles installed in the
8 particular work order, based on several key defining characteristics of the poles such as height
9 and type.²³ More specifically, the applicable standard price factor from the PPS is multiplied by
10 the quantity of poles associated with the particular work order as determined by a field
11 inventory.²⁴ In this manner, the allocation of 364 pole plant into the GL 101 account is
12 determined in a systematic fashion using a "unitization" process based on an inventory count of
13 poles in the field and standardized price factors developed for specific classes of poles.

14
15 By contrast, as described in the deposition testimony of James Dean and as further discovered in
16 OCTA's examination of individual work orders posted to the GL 106 account, the allocation of
17 pole plant into the GL 106 account is a seemingly ad hoc, undocumented estimation process
18 prone to misallocations, inaccuracies, arbitrariness, and suffering from an apparent lack of
19 effective oversight and controls.

²³ Deposition of James Dean, dated January 30, 2009, at 42-43 (Att. 7).

²⁴ Id at 42.

1 **Q. ON WHAT DO YOU BASE THE CHARACTERIZATION OF DUKE'S GL 106**
2 **ACCOUNTING PROCESS AS AN UNDOCUMENTED ESTIMATION PROCESS**
3 **SUBJECT TO LACK OF EFFECTIVE CONTROL AND OVERSIGHT?**

4 A. As noted earlier, in late January of this year, Duke made a downward revision to the GL 106
5 balance for account 364 of \$61.4million. Through a series of discovery responses and deposition
6 questioning of Duke accounting witness, James Dean, concerning among other things, the
7 individual work orders that Duke reviewed in connection with its revision to the GL 106 balance,
8 some very questionable aspects of Duke's GL 106 estimation process have been revealed.

9
10 In the course of this proceeding, Duke has revised its pole plant investment figures that include
11 GL 106 no less than four different times, providing evidence of an inexact and lax nature of
12 Duke's GL 106 accounting process.²⁵ In discovery responses provided to OCTA in November
13 2008 presenting a summary of CPR (Continuing Property Record) data for account 364 that
14 include both GL 101 and GL106, Duke identified a pole investment amount as of year-end 2007
15 of \$262.6-million.²⁶ In a subsequent round of discovery responses to OCTA, Duke had revised
16 that figure upward to \$284.5-million.²⁷ In responses provided to Staff shortly thereafter, Duke
17 revised its estimates of year-end 2007 pole plant amounts two more times. The first time Duke
18 identified it was making a \$65.6-million reduction to GL 106 pole plant, bringing its previously
19 stated (combined GL 101 and GL 106) pole plant investment figure down to \$218.9-million.²⁸

²⁵ See Deposition of James Dean, January 30, 2008, at 11-19 (Att. 7).

²⁶ See Duke Response to OCTA POD-01-004, OCTA Deposition Exhibit 4 (Att. 9).

²⁷ See Duke Response to OCTA-INT 03-022, OCTA Deposition Exhibit 21 (Att. 9).

²⁸ See Duke Response to PUCO Fiftieth Set Staff Data Requests, STAFF DR-50-001 (Att. 9).

1 However, Duke issued a supplemental response identifying a reduction of \$61.4-million to GL
2 106 resulting in a stated amount of \$223.1-million in combined GL 101 and GL 106 pole plant,
3 and it is this “final” number that is incorporated in the Staff Report.²⁹ Summary CPR account
4 364 data provided by Duke for earlier years were also subject to change over the course of
5 discovery.³⁰

6
7 Duke’s own awareness of the need to revise GL 106 amounts associated with pole plant was first
8 revealed in the earlier deposition testimony of James Dean. Mr. Dean acknowledged Duke’s
9 discovery back in June or July of 2008, and also more recently in the course of his preparation
10 for his deposition in this case, that certain projects had been entered into the GL 106 account
11 with overestimated amounts for poles. Simply put by Mr. Dean, “the utility account estimated
12 allocation had put too much to the pole account” vis-à-vis other distribution plant accounts.”³¹
13 Mr. Dean indicated Duke’s intention to perform a review of estimated amounts assigned in GL
14 106 to poles vis-à-vis other distribution accounts. However, at that time (mid-December), Mr.
15 Dean testified that Duke was still in the process of reviewing and finalizing the nature of the
16 review process they were going to perform, and according to Mr. Dean, they had only initially
17 focused on amounts assigned to poles in GL 106 in 2007.³² In the course of his deposition, there
18 were numerous instances pointed out, spanning back multiple years, where investment seemingly

²⁹ See Id., STAFF DR 50-001 Supplemental (Att. 9).

³⁰ See data presented for years 1993 -1999 as identified in Duke Response to OCTA-Int-02-015, OCTA Deposition Exhibit 22, as compared to Duke Response to OCTA-INT 03-022, OCTA Deposition Exhibit 21 (Att. 9).

³¹ See Deposition of James Dean, dated December 15, 2008, at 32-34 (Att. 8).

³² See Id. at 91-92.

1 completely unrelated to poles (such as investment in conductors, capacitors, and street lights),
2 had been assigned to the GL 106 to the pole account 364.³³

3 **Q. WOULD YOU EXPECT TO HAVE INVESTMENT AMOUNTS GOING BACK**
4 **MULTIPLE YEARS SITTING IN THE GL 106 ACCOUNT?**

5 A. Under normal expectations, and pursuant to FERC rules, work orders would be cleared from
6 Account 107 to 106 as soon as practicable following completion of the job, and similarly the
7 tentative or estimated distributions of plant to Account 106 would be permanently classified into
8 Account 101 in a timely manner. The instructions on the FERC Form 1 pertaining to Electric
9 Plant in Service Accounts make a specific allowance for “entries for reversals of tentative
10 distributions of prior *year reported*.”³⁴ In the case of Duke’s GL 106, this appears to be far from
11 the case. Duke’s serious backlog problems apparently first arose in connection with the utility’s
12 conversion to the new PPS accounting system, which occurred year-end 1999.³⁵ According to
13 Mr. Dean, prior to the conversion, it was Duke’s normal business practice to classify plant from
14 GL 106 into Account 101 with three to six months of the plant being placed in service, or at least
15 within the year.³⁶ When asked in deposition about certain projects put in service as far back as
16 2000 that had not yet been classified, Mr Dean explained that “****This information is redacted.*
17 *It refers to Depositions and Deposition Exhibits submitted under seal on February 23,*
18 *2009****”³⁷

³³See for example, *Id.* at 66-70, 79, 92-93.

³⁴ FERC Form 1, page 204, Electric Plant in Service (Account 101,102,103, and 106).

³⁵ See Duke Response to OCTA-INT-02-015, OCTA Deposition Exhibit 22 (Att. 9).

³⁶ See Deposition of James Dean, January 30, 2009, at 51-52 (Att. 7).

³⁷ *Id.* at 52.

1
2 Mr. Dean's testimony concerning the backlog in GL 106 is corroborated in CPR summary data
3 provided in discovery which showed that, as of year-end 1999, just prior to Duke's conversion to
4 PPS, the balance in GL 106 for pole plant was only about ****This information is redacted. It*
5 *refers to Depositions and Deposition Exhibits submitted under seal on February 23, 2009****,
6 associated primarily with projects completed within that calendar year.³⁸ By contrast, as of year-
7 end 2007, prior to the revisions made by Duke in the course of this rate proceeding, the balance
8 in GL 106 for pole plant had mushroomed to approximately ****This information is redacted. It*
9 *refers to Depositions and Deposition Exhibits submitted under seal on February 23, 2009****³⁹
10 ****This information is redacted. It refers to Depositions and Deposition Exhibits submitted*
11 *under seal on February 23, 2009****⁴⁰ Even with Duke's downward revision of \$61.4-million,
12 Duke's GL 106 balance in Account 364 remains over ****This information is redacted. It refers*
13 *to Depositions and Deposition Exhibits submitted under seal on February 23, 2009****⁴¹ ****This*
14 *information is redacted. It refers to Depositions and Deposition Exhibits submitted under seal*
15 *on February 23, 2009****

16

³⁸ Id. at 112-113.

³⁹ The ****This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009**** figure is derived by subtracting ****This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009**** [the balance in the GL 101 for Account 364] from \$284.5 million [the original combined GL 101 and 106 account balance for Account 364 of as year-end 2007].

⁴⁰ See Deposition of James Dean, dated January 30, 2009, at 52-53 (Att 7), see also CPR Ledger Detailed Asset Report for GL Account 106, OCTA Deposition Exhibit 14, pp. 64-144 (Att.11).

⁴¹ This figure is calculated by subtracting the \$61.4-million in reductions to the GL 106 for poles from the unadjusted balance for GL 106 of ****This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009****

1 **Q. HAS DUKE PROVIDED AN EXPLANATION OF WHY PLANT INVESTMENT HAS**
2 **BEEN OVER ALLOCATED TO POLES IN THE GL 106 ESTIMATION PROCESS?**

3 A. In response to a Staff interrogatory, Duke attributes its errors in distributing dollars to the
4 proper accounts to the following two events: (1) Duke's implementation of a new accounting
5 system in April 2005, at which time a number of blanket work orders (i.e., orders not associated
6 with a specific project work orders)⁴² that should have been allocated to several different
7 distribution accounts were mistakenly allocated solely to the pole account 364; and (2) in
8 December 2006, several work orders created for the purposes of "establishing a vintage year for
9 additions" were erroneously coded in account 107 (Construction Work in Progress) rather than
10 account 106, and the correction of that error in January 2007 had the effect of understating 2006
11 additions and overstating 2007.⁴³ Additionally, Duke's response mentions corrections that "go
12 back to 2001," but claims the "2001-2004 corrections are minor."
13

14 **Q. DOES DUKE'S EXPLANATION ADEQUATELY EXPLAIN THE OBSERVED**
15 **ERRORS IN GL 106 WITH RESPECT TO POLE PLANT ACCOUNT 364?**

16 A. No, it does not. Duke fails to explain how the types of errors Duke describes in the above
17 cited response took place in the first instance and why they were not caught earlier. Duke also
18 fails to explain why the types of errors Duke describes would be limited to the two specific dates
19 (i.e., April 2005 and December 2006) identified in this response. There are examples of
20 potential misallocations to pole account 364 throughout the entire GL 106 account and over the

⁴² See Deposition of James Dean, dated January 30, 2008, at 71 (Att. 7).

⁴³ See Duke Response to PUCO Fiftieth Set of Staff Data Requests, STAFF DR-50-001 Supplemental (Att. 9).

1 entire time period of identified work orders, as far back as ****This information is redacted. It*
2 *refers to Depositions and Deposition Exhibits submitted under seal on February 23, 2009*****
3 As discussed further below, the explanation for observed errors in the GL 106 account appear
4 more related to systemic problems in Duke's 106 estimation process consistent with a lack of
5 proper oversight and control in connection with and continuing in the years following Duke's
6 switch over to the new accounting system at the end of 1999. Plant account assignments have
7 been allowed to languish in a roughly-estimated state in the 106 account for years, rather than be
8 subject to the more systematic unitization and costing process that occurs during the final
9 classification into GL 101. Duke's explanations offered in this case do not substantively explain
10 why this apparent breakdown in process occurred.
11 With respect to Duke's claims of only "minor" corrections prior to 2005, while it may be true
12 that Duke has *made* only relatively minor corrections to work orders pre-dating the 2005
13 accounting conversion process, Duke does not provide any information that adequately explains
14 or justifies that particular outcome. As a general proposition, Duke has provided no real
15 documentation to support either its original or revised plant allocation estimates, nor does it
16 identify any standards of review established for the internal group charged with the task of
17 reviewing the plant allocation estimates in connection with this rate case.⁴⁵
18

⁴⁴ See, for example, Deposition of James Dean, December 15, 2008 at 77, 92-93 (Att. 8), also CPR Ledger Detailed Asset Report, OCTA Deposition Exh. 14, pp.64-144 (Att. 11).

⁴⁵ See Duke Response to OCTA-INT-03-023(Att. 9), also Deposition of James Dean, January 30, 2009, at 55-58 (Att. 7).

1 ****This information is redacted. It refers to Depositions and Deposition Exhibits submitted*
2 *under seal on February 23, 2009***⁴⁶ ***This information is redacted. It refers to Depositions*
3 *and Deposition Exhibits submitted under seal on February 23, 2009***⁴⁷ ***This information is*
4 *redacted. It refers to Depositions and Deposition Exhibits submitted under seal on February 23,*
5 *2009****

6 **Q. DOESN'T THE FACT THAT DUKE HAS MADE A SIGNIFICANT REDUCTION IN**
7 **THE GL 106 ACCOUNT TO CORRECT FOR THE OVER ALLOCATION OF PLANT**
8 **TO ACCOUNT 364 REMEDY THE CONCERNS WITH RELYING ON GL 106 IN**
9 **THE POLE RATE FORMULA CALCULATION?**

10 A. No, it does not. While a number of corrections were made by Duke pursuant to this rate case
11 investigation (resulting in the reduction of the pole plant investment amount by \$61.4-million),
12 the corrections made by Duke are not sufficiently supported or comprehensive so as to satisfy the
13 standard of transparency and accuracy inherent in the FCC formula methodology approach.
14 Plus, the scant documentation that Duke provided in discovery and in Mr. Dean's deposition
15 testimony regarding the assignment of costs to the pole plant account raises even more questions
16 about the seemingly arbitrary and undocumented nature of Duke's GL 106 estimating process,
17 both as it pertains to the original assignment to account 364 and any revised assignment made in
18 connection with the rate case review. In my opinion, given the questions that have been raised
19 concerning the accuracy and reliability of the amounts of pole plant recorded in GL 106 relative
20 to the classified pole plant amounts recorded in GL 101, it makes no sense to rely on the former,

⁴⁶ See Deposition of James Dean, January 30, 2009, at 70. (Att. 7)

⁴⁷ See, for example, CPR Ledger Detailed Asset Report, OCTA Deposition Exh. 14, at pp.108, 115-122 (Att. 11).

1 even as revised. Moreover, and independent of the questions and concerns regarding the
2 accuracy and reliability of GL106 plant assignments, it would be problematic to include pole
3 plant recorded in GL 106 because of the mismatch with the pole count as described further
4 below.

5
6 **Q. PLEASE DESCRIBE THE QUESTIONS RAISED IN CONNECTION WITH DUKE'S**
7 **RECENT REVISIONS TO GL 106.**

8 A. ****This information is redacted. It refers to Depositions and Deposition Exhibits submitted*
9 *under seal on February 23, 2009***⁴⁸ ***This information is redacted. It refers to Depositions*
10 *and Deposition Exhibits submitted under seal on February 23, 2009***⁴⁹ ***This information*
11 *is redacted. It refers to Depositions and Deposition Exhibits submitted under seal on February*
12 *23, 2009***⁵⁰*

13
14 Second, and perhaps more importantly, Duke has provided no documentation or detailed
15 justification of the adjustments that were made - or in many cases, not made - to projects that
16 were subject to review. ****This information is redacted. It refers to Depositions and*
17 *Deposition Exhibits submitted under seal on February 23, 2009***⁵¹*

18

⁴⁸ Deposition of James Dean, dated January 30, 2009 at 91 (Att. 7).

⁴⁹ See, for example, CPR Ledger Detailed Asset Report, OCTA Deposition Exhibit 14, p.99, 121 (Att. 11).

⁵⁰ See Deposition of James Dean, dated January 30, 2009 at 77 (Att. 7).

⁵¹ See Deposition of James Dean, January 30, 2009, at 61-62, 65, 69-72, 78 (Att. 7). See also OCTA-INT-03-23, OCTA Deposition Exhibit 21 (Att. 9) showing a list of work orders reviewed. Those without any numbers did not have any adjustment made to their original allocation estimates.

1 **Q. CAN YOU EXPLAIN FURTHER ABOUT THE REVISED PLANT ASSIGNMENTS**
2 **MADE PURSUANT TO DUKE'S REVIEW PROCESS AND WHY, IN THE ABSENCE**
3 **OF DOCUMENTATION, THEY APPEAR TO BE SEEMINGLY ARBITRARY?**

4 A. In the absence of documentation, it is not possible to independently validate the revisions
5 Duke made to correct for original errors in plant assignments to GL 106, to understand how
6 those revisions compare to the original plant assignment estimates, or to assess the
7 reasonableness of the instances where no revisions were made. Once again, as with the pole
8 count data Staff relies on, the Company witness responsible for the revised pole plant investment
9 figure appears to have no supporting back up information concerning any adjustments that were
10 made in the review process. ****This information is redacted. It refers to Depositions and*
11 *Deposition Exhibits submitted under seal on February 23, 2009***⁵² ***This information is*
12 *redacted. It refers to Depositions and Deposition Exhibits submitted under seal on February 23,*
13 *2009**** Given the number of revisions that have been made to GL 106 within the past couple
14 of months, the lack of documentation regarding either the original or revised allocation estimates
15 gives little basis for confidence in the accuracy of these numbers.

16
17 ****This information is redacted. It refers to Depositions and Deposition Exhibits submitted*
18 *under seal on February 23, 2009***⁵³ ***This information is redacted. It refers to Depositions*
19 *and Deposition Exhibits submitted under seal on February 23, 2009***⁵⁴*

⁵² See Deposition of James Dean, January 30, 2009, at 98-100 (Att. 7).

⁵³ See Id. at 101-102. Mr. Dean could not recall what the sets of percentage allocations he was provided were.

⁵⁴ Id.

1 ***This information is redacted. It refers to Depositions and Deposition Exhibits submitted
2 under seal on February 23, 2009***⁵⁵ ***This information is redacted. It refers to Depositions
3 and Deposition Exhibits submitted under seal on February 23, 2009***⁵⁶***This information is
4 redacted. It refers to Depositions and Deposition Exhibits submitted under seal on February 23,
5 2009***

6

7 **Q. ASIDE FROM THE UNRELIABLE AND INACCURATE NATURE OF DUKE'S GL**
8 **106 ACCOUNTING FOR POLES, IS THERE ANOTHER REASON WHY IT WOULD**
9 **BE PROBLEMATIC TO INCLUDE GL 106 POLE INVESTMENT AMOUNTS IN**
10 **THE POLE RATE FORMULA?**

11 A. Yes, there is another very important reason why GL 106 pole investment should not be
12 included in the pole investment amounts used to calculate the pole rate formula. Including pole
13 investment dollars recorded in GL 106 would result in an apparent mismatch between the pole
14 investment number and the pole count number used in the rate formula calculation. The problem
15 is similar to that previously described in connection with using a rate year investment figure (i.e.,
16 as of March 31, 2008) with a pole count as of year-end 2007, but to an even larger degree given
17 the magnitude of the GL 106 pole balances Duke has allowed to accumulate. The mismatch
18 occurs because the net bare pole cost component of the rate formula is derived by dividing
19 booked pole investment dollars by a number of poles identified by the utility. Including
20 investment associated with multiple prior years of "non-unitized" investment (such as included

⁵⁵ Id. at 59-62, 66-70, see also referenced works orders in OCTA Deposition Exhibits 25-27. (Work orders in OCTA Deposition Exhibits cited in this testimony provided in Attachment 12 to this testimony).

⁵⁶ ***This information is redacted. It refers to depositions and Deposition Exhibits submitted under seal on February 23, 2009***

1 in Duke's GL 106 accounting for poles) in the numerator, without including the additional
2 number of poles corresponding to that pole plant in the denominator, if uncorrected, will result in
3 an over-statement of the net bare pole cost and the pole rate derived on the basis of that cost.
4 This is precisely the outcome here because of the time lags inherent in Duke's pole classification
5 and inventorying processes.

6 Mr. Dean explains in his deposition testimony that the point at which poles are inventoried and
7 entered into the Small World post, is not when they are put in service and recorded in GL 106,
8 but later at such time the project is classified (also referred to as "unitized") from GL 106 into
9 the GL 101.⁵⁷ Mr. Dean further testifies that while at best, the inventorying of poles would take
10 place several months following the actual placement of the poles in the field, in recent years,
11 Duke apparently has fallen years behind.⁵⁸ Thus, as described, there exists a potentially very
12 substantial lag between the time Duke records pole plant investment in the GL 106 account, and
13 the time at which the number of poles associated with that plant is inventoried and appears in the
14 Small World system and hence incorporated in the pole count figure generated by Small World
15 and used in the pole rate formula. Duke's acknowledged backlog in unitizing and inventorying
16 pole plant makes the impact of the mismatch that would result from including GL 106 "non-
17 unitized" pole plant amounts in the pole formula all the more significant a problem here.

18

⁵⁷See Deposition of James Dean, dated January 30, 2009, at 25, where he explains that it is at the time of unitization that "[t]hey will place the new construction onto that system identifying what the property units are pertinent to that project." (Att. 7) See also Deposition of James Dean, dated December 15, 2008, at 33: "Then we unitize, close the project, we move it to the 101. That's when we do a field inventory of all the poles" (Att. 8).

⁵⁸Deposition of James Dean, dated December 15, 2008 at 41-42 (Att. 8), see also Deposition of James Dean, January 30, 2009 at 51-53 (Att.7).

1 **Q.AFTER THE NEEDED CORRECTIONS TO DATA INPUTS ARE MADE, WHAT IS**
2 **THE RESULTING MAXIMUM POLE ATTACHMENT RENTAL RATE**
3 **CALCULATED USING THE REGULATED RATE FORMULA?**

4 A. After making the needed corrections to data inputs as described above (i.e., gross up to pole
5 count figure to conform to the rate year, and removal of the unreliable GL 106 pole investment
6 amounts), I calculate a maximum pole rental rate of \$6.05 per pole per year for one foot of space.
7 My rate calculations are presented in Attachment 4 to this testimony.

8 **Q. HOW DOES THE RESULT OF YOUR FORMULA RATE CALCULATION**
9 **COMPARE TO STAFF'S PROPOSED RENTAL RATE FOR POLES?**

10 A. Staff calculates a maximum pole attachment rate of \$9.25 using the rate formula. However,
11 Staff actually proposes a maximum pole rate of \$6.40, which represents a 50% increase over the
12 existing \$4.25 pole rental rate. Staff's proposed rate of \$6.40 is based on its finding that "a
13 118% increase [from \$4.25 to \$9.25] is too significant to impose in a single increase," and that
14 even at the lower \$6.40, the new rate "would be the highest tariffed electric company rate in the
15 State."⁵⁹ Interestingly, my own rate calculation of \$6.05 (which I have derived using the rate
16 formula but with corrected data inputs) is in the same range as Staff's proposed rate (about 5.5%
17 lower). My calculation confirms the reasonableness of Staff's moderated approach in setting a
18 new pole attachment rental rate, but shows that even Staff's moderated proposed rate increase is
19 higher than justified based on fully allocated cost.

20

⁵⁹ Staff Report at 24.

1 **Benchmark data from peer utilities show pole rates well below both Staff's proposed \$6.40**
2 **rate and my corrected \$6.05 formula rate.**

3
4 **Q. HOW DO THE RESULTS OF YOUR FORMULA RATE CALCULATION COMPARE**
5 **WITH FORMULA RATE RESULTS AND/OR RATES IN EFECT FOR OTHER**
6 **DUKE ENERGY UTILITIES AND DUKE'S PEER UTILITIES IN OHIO?**

7 A. As an independent check on the reasonableness of my rate formula result, I have compared
8 my result for Duke Energy – Ohio with formula rate results and/or rates in effect for other Duke
9 Energy utilities as well as other peer utilities in Ohio. The benchmark analysis I have performed
10 shows that my formula rate calculation, and even more so Staff's, produces a rate result that is
11 relatively high as compared to a peer group of comparable electric utilities.

Table 1					
Benchmark Comparison of Pole Rates Charged by Peer Duke Electric and Ohio Utilities					
Peer Group	Existing Pole Rate	Staff Proposed Rate	% Staff Rate Exceeds Existing Rate	Corrected Pole Formula Rate	% Corrected Pole Rate Exceeds Existing Rate
DE Utilities					
DE -Ohio	\$4.25	\$6.40	51%	\$6.05	42%
DE -Indiana	\$4.91 ^a		30%		23%
DE -Kentucky	\$4.30 ^b		49%		41%
DE-No Carolina	\$5.32 ^c		20%		14%
CEI	\$4.29		49%		41%
Ohio Utilities					
Columbus So P	\$2.98		115%		103%
Dayton P &L	\$3.50		83%		73%
OH Edison	\$4.69		36%		29%
OH Power Co	\$3.90		64%		55%
Toledo Edison	\$3.39		89%		78%
Avg Telco	\$2.59		149%		135%
a. Deposition of Ulrich Angleton, December 15, 2008, at 18 (Att.13). b. Id. at 17, Rate is average of two and three party rates. c. Derived from telecom rate data, rate applies for 2006-2007 and 1998-1999.					

1

2 As shown in Table 1 on the preceding page, the \$6.05 maximum pole rate figure I have
 3 calculated for Duke Energy-Ohio using corrected data inputs is some 14% to 41% higher than
 4 benchmark data available for sister Duke utilities. Staff's proposed rate of \$6.40 is as much as
 5 20% to 49% higher than the rate for comparable Duke utilities. Similarly, relative to its peer
 6 utilities in Ohio, both my corrected formula rate and Staff's proposed rate are higher than any
 7 other pole rate currently in effect for other electric utilities, ranging from as much as 29% to over
 8 100% more. Compared with the average pole rate charged by telephone companies, the formula

1 rates for Duke Energy- Ohio before the PUCO in this case are between two and two and one-half
2 times greater.

3 The 239% increase in the pole attachment rate (from \$4.25 to \$14.42) that Duke originally
4 proposed using the FCC formula for year-end 2007, and the 118% increase (from \$4.25 to \$9.25)
5 that Staff calculated using the rate formula for the test year period, both present an immediate red
6 flag when compared against the relevant benchmark data. Indeed, the observation of Duke's
7 highly anomalous rate formula results relative to Duke's peer utilities raised serious questions
8 concerning Duke's data inputs to the formula in the first instance. In this context, it is not
9 surprising that the questioning of Duke witnesses concerning the utility's pole plant accounting
10 ultimately led to the revelation of systemic problems in Duke's GL106 for account 364 that
11 produced overstated pole plant investment amounts and correspondingly overstated rate formula
12 results for Duke and Staff, respectively.

13 The use of benchmark data as an independent means to test the reasonableness of a result is a
14 common practice, especially when there are issues or limitations that affect the quality of the
15 data available for the analysis. In addition, because of the intrinsic nature of the underlying pole
16 plant (i.e., extremely long-lived asset relatively immune to technological innovation), all things
17 being equal, I would not expect to see either a significant variation among sister utilities in
18 similar regions of the country or a substantial increase in the historical per unit cost over time for
19 poles. The rate result I calculate using corrected data inputs is more reasonable by comparison.

20 **Q. IS THERE ANY OTHER POINT OF COMPARISON AVAILABLE FOR YOUR RATE**
21 **FORMULA RESULT?**

1 A. Yes. Another point of comparison is the effective pole rate Duke charges telephone
2 companies within its service area. According to Duke witness Ulrich Angleton, the rate that
3 Duke charges Embarq for three feet of space on the pole is \$16,⁶⁰ suggesting an effective rate per
4 foot of pole space of \$5.33 □ right in line with the other benchmark data. Moreover there are
5 other important differences in the manner electric utilities typically charge telephone companies
6 vis-à-vis cable operators, that when taken into account, suggest an even more favorable effective
7 per pole rate for the former. In particular, telephone companies typically pay rental fees for only
8 the number of poles that exceeds a pre-established ownership percentage, and are not subject to
9 the upfront and often substantial make-ready fees charged cable operators for work identified by
10 the utility as needed to accommodate their attachment and that apply over and beyond the annual
11 formula rental rate.

12 **There are important economic and policy reasons that support a pole attachment rate**
13 **closer, if not equal to, Duke's existing cable rate of \$4.25.**
14
15

16 **Q.MS. KRAVTIN, ARE THERE OTHER REASONS FOR KEEPING THE POLE**
17 **ATTACHMENT RENTAL RATE BELOW THE \$6.40 RATE PROPOSED BY STAFF,**
18 **AND EVEN THE \$6.05 RATE YOU HAVE CALCULATED?**

19 A. Yes, there are several important economic and policy reasons that support a pole attachment
20 rate below \$6.00 and closer, if not equal to, the existing rate of \$4.25 currently being charged by
21 Duke to cable operators in Ohio.

⁶⁰ See Deposition of Ulrich Angleton, dated December 15, 2008 at 38. (Excerpts of the Ulrich Angleton's deposition, dated December 15, 2008, provided in Attachment 13 to this testimony.)

1 Q. PLEASE EXPLAIN.

2 A. Because the FCC formula rate is a fully allocated cost (including a reasonable return on the
3 utility's investment), by definition it exceeds the marginal cost of attachment.⁶¹ Marginal costs
4 in this context are defined as any additional costs incurred by the utility in order to accommodate
5 or host a third-party attachment that would not exist "but for" the presence of that third-party
6 attachment. These types of costs are precisely those that the make-ready charges paid by cable
7 operators on an up-front basis for the non-recurring or out-of-pocket costs of hosting an
8 attachment are designed to cover. Annual rental payments based on the regulated rate formula
9 provide payments to the pole owner *over and above* those make-ready charges. Thus, taken
10 together, this means that Duke has the opportunity to recover much more than the marginal cost
11 of attachment from a cable operator for use of otherwise available space on utility poles.⁶² Plus,
12 the utility enjoys the benefit of any and all improvements to its pole assets (including greater
13 available pole capacity to use itself or to rent to others) fully funded by the make-ready charges
14 paid by the cable operator.

15

⁶¹ By design, the carrying charge factor incorporated in both the cable and telecom formulas "reflects those costs incurred by the utility in owning and maintaining pole attachment infrastructure regardless of the presence of attachments," the precise opposite from what marginal costs would be intended to reflect. *Amendment of Commission's Rules and Policies Governing Pole Attachments, Consolidated Partial Order on Reconsideration*, FCC 01-170, 16 FCC Rcd 12103, 12156 ¶ 110 (2001) ("*Reconsideration Order*"), citing *Amendment of Rules and Policies Governing Pole Attachments, Report and Order*, FCC 00-116, 15 FCC Rcd 6453, 6477-78 ¶ 44 (2000) (emphasis added). See also, *Alabama Power Co. v. FCC*, 311 F.3d 1357, 1363, 1368-1369 (11th Cir. 2002).

⁶² "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 . . . [so that] much more than marginal cost is paid under the Cable Rate . . ." *Alabama Power Co. v. FCC*, 311 F.3d at 1368-69.

1 From an economics perspective, as long as the price for pole attachments exceeds the marginal
2 cost of attachment, the utility pole owner and its ratepayers are definitively better off financially
3 after a cable attachment than before, and any potential for cross-subsidy of the cable operator by
4 the utility or its ratepayers is avoided. Thus, even at the current pole rental rate of \$4.25, and
5 especially taking into account make ready charges, Duke stands to recover *much more* than its
6 marginal cost of attachment.⁶³ Conservative estimates of the marginal cost of attachment that I
7 have seen generally fall in the \$1.00 to \$1.50 range per foot of space. Given Duke is recovering
8 much more than the marginal cost of attachment for use of otherwise available space on a utility
9 pole, it is a “win-win” for both the utility and the cable operator. It is also a “win” for the society
10 as a whole.

11 From an overall societal standpoint, the closer the prices charged by the utility for cable’s shared
12 use of its pole facilities are to the utility’s marginal costs of attachment, the more efficient the
13 outcome in terms of maximizing the productive use of societal resources. This is the result of
14 several related economic phenomena. Pricing approximating marginal cost creates conditions
15 more likely to simulate and therefore stimulate competition market performance in the final
16 service market (i.e., broadband), with its wide-ranging benefits to consumers in the form of
17 lower prices, greater choices among new and innovative services, and enhanced productivity and
18 economic development opportunities for the economy in the state of Ohio. Minimizing the

⁶³ “Significantly, when an attacher pays the cost of getting on a pole, Gulf Power stands to earn more.” See 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 (“FCTA”)*, Initial Decision of Administrative Law Judge Richard Sippel, EB Docket 04-381, rel. January 31, 2007, ¶23. See also *Id.* at ¶19: “And Gulf Power is never out of pocket because when a cable operator needs make-ready work to accommodate an attachment, the attacher pays the costs.”

1 possibility of lost value to consumers (most of whom are also electricity subscribers) and society
2 in general from allowing utilities to charge too high a price for pole attachments relative to the
3 marginal cost of the attachment is all the more compelling given the relative ease with which
4 cable and other third party attachers have historically been accommodated through a utility's
5 normal and customary make-ready arrangements.

6
7 **Based on application of the FCC conduit rate formula, Duke should be allowed to charge**
8 **cable operators a conduit rental rate of no more than \$0.55 per foot of conduit space.**
9

10 **Q. UNTIL NOW, YOUR TESTIMONY HAS FOCUSED EXCLUSIVELY ON THE RATE**
11 **DUKE CHARGES CABLE OPERATORS FOR THEIR OCCUPANCY OF UTILITY**
12 **POLE SPACE. IS THERE ALSO A NEED TO ESTABLISH A REGULATED RATE**
13 **FOR CABLE'S OCCUPANCY OF DUKE'S UNDERGROUND CONDUIT?**

14 A. Yes, there is. Like poles, conduits are "essential facilities" capable of serving as bottlenecks
15 to facilities-based competition for which cable operators have not had similar opportunities to
16 construct their own structures or to join together to share a common facility similar to incumbent
17 telephone and electric utilities in the past. Where cable operators occupy space in Duke's
18 conduits, they typically have no practical or cost-effective alternative to the use of those
19 facilities.

20 As is the case with poles, there are zoning, environmental, municipal ordinance, financial, and
21 other constraints that make it impractical for cable and other third parties to construct new
22 conduit systems on a scale or scope anything close to that owned and controlled by the

1 incumbent utility.⁶⁴ In any given area, there is typically one provider of conduit space with
2 surplus space in those conduits, as the cost of constructing a stand-alone conduit system
3 throughout the entire service area would be prohibitively expensive. There is no other regulated
4 or unregulated entity that lease conduit in sufficient quantity and/or ubiquity so as to provide the
5 cable operator with a viable market-based alternative to the leasing of conduit from the existing
6 utility. Even as regards a more limited overbuild, third parties tend to face numerous
7 impediments, including resistance from local governmental authorities in authorizing
8 unnecessary and/or disruptive street cuts. Even if local permits would be granted, the social,
9 aesthetic, and other costs of constructing duplicative conduit have long served to effectively
10 require cable operators and CLECs to follow the paths of existing utilities. This reality has been
11 and continues to be a major factor in rulings by the FCC, state and local regulatory bodies, and
12 the courts, as to the continued appropriateness of applying a regulatory rate formula based on
13 embedded costs to the third-party rental of utility pole and conduit space alike.

14 **Q. PLEASE DESCRIBE THE FCC FORMULA FOR CALCULATING THE MAXIMUM**
15 **RENTAL RATE FOR CONDUIT SPACE AS APPLIED TO ELECRIC UTILITIES?**

16 A. The FCC formula used to derive the maximum rate for occupancy of utility conduit space is
17 directly analogous to the formula for poles. Similar to poles, there are three major components
18 of the FCC formula applied to conduit. These are (1) the net unit (linear) cost, (2) the percent of
19 capacity occupied by an attacher, and (3) the carrying charge factor. As in the case of the pole
20 rate formula, the maximum rate under the FCC formula is derived by multiplying the product of
21 the first two components of the formula (the net linear cost of conduit times the percentage of

⁶⁴ See, e.g., *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001), at ¶57.

1 conduit capacity) by a carrying charge factor that translates investment costs into annual costs, as
2 shown in the formula below.

3
$$\text{Maximum Conduit Rate} = [\text{Net Linear Cost of a Conduit}] \times [\text{Carrying Charge Rate}] \times$$

4
$$[\text{Percentage of Conduit Capacity}]$$

5 Attachment 3 to my testimony describes each of the three major components of the FCC conduit
6 attachment formula in detail.

7

8 **Q.HAVE YOU PERFORMED A CALCULATION OF THE MAXIMUM CONDUIT**
9 **RENTAL RATE THAT DUKE IS PERMITTED TO CHARGE CABLE OPERATORS**
10 **USING THE FCC FORMULA?**

11 A. Yes, I have. Those calculations are presented in Attachment 5 to this testimony. As shown in
12 those calculations, the fully allocated cost of conduit for the test year ending March 31, 2008,
13 derived on the basis of the FCC's one-half duct presumption (i.e., a capacity percentage of 50%),
14 and using specific rate case data when available, is **\$0.55** per foot of conduit occupied.

15 **Q. DO YOU HAVE REASON TO BELIEVE A RATE BASED ON THE HALF-DUCT**
16 **CONVENTION MAY OVERSTATE THE COST PROPERLY ATTRIBUTABLE TO A**
17 **CABLE COMPANY'S OCCUPANCY OF CONDUIT SPACE?**

18 A. Yes, I do. Use of the FCC's half-duct convention is equivalent to an assumption of *two* inner
19 ducts per conduit. In my calculation of the conduit rate formula, I have relied on the FCC's half-
20 duct convention because there is no information available in the record regarding Duke's
21 practices with respect to inner duct installations. However, it is my understanding that
22 installation of up to *six* inner ducts is not unusual. The more inner ducts present in a conduit, the

1 more units of capacity over which to spread the costs of the conduit. For example, with an
2 average of three inner ducts per conduit, Duke's maximum rental rate would be \$0.36 per foot of
3 conduit space as compared with \$0.55 per foot of conduit space calculated using the half-duct
4 convention.

5 In its 2001 pole attachment decision, while retaining the half-duct convention,⁶⁵ the FCC
6 affirmed the principle underlying its formula that attachers should be assessed only for that
7 amount of conduit space actually occupied. The FCC held that when there is the evidence to
8 demonstrate an even smaller portion of the duct is occupied through the use of inner duct, that
9 percentage should be used in the formula in place of the FCC presumption which assumes a
10 lessee occupies one-half of the conduit. Accordingly, to the extent data is available to the
11 PUCO that would support use of a higher number of inner ducts for Duke, that number should be
12 used in the conduit rate formula in lieu of the half-duct convention.

13 **Q. HAS STAFF PRESENTED CONDUIT RENTAL RATE CALCULATIONS IN THIS**
14 **CASE?**

15 A. No, it has not.

⁶⁵ See Consolidated Partial Order on Reconsideration, FCC CS Docket 97-98, CS Docket No. 97-151, FCC 01-170, Rel. May 25, 2001, ¶¶95-98.

1 include multichannel video, broadband, and voice) and create a cost disadvantage for the entrant
2 vis-à-vis the incumbent and/or other competitors, for whom those non-price factors do not apply
3 or are applied by the utility in a more favorable manner.

4 It is important to note that neither economic nor regulatory policy defines barriers to entry as an
5 absolute condition. The economic literature defines barriers to entry in terms of the “condition
6 of entry” and is basically equivalent to the “‘state of potential competition’ from possible new
7 sellers.”⁶⁶ In his seminal work on barriers to entry, economist Joe Bain identifies several types or
8 sources of entry barriers, including (1) absolute cost advantages of the established firm; (2)
9 product differentiation advantages of the established firm, and (3) advantages enjoyed by the
10 established firm relating to economies of scale. While the earlier economic literature on barriers
11 to entry tended to focus on a short-run, relatively simplistic view of the entry condition,
12 subsequent work has examined entry conditions over a longer time horizon with particular focus
13 on dynamic entry-detering behavior involving more sophisticated price and non-price strategies.
14 The regulatory literature, most recently in the context of implementation of the
15 Telecommunications Act of 1996, and its prevailing standard of competitive neutrality, defines
16 an entry barrier as any regulation or policy that “materially inhibits or limits the ability of any
17 competitor or potential competitor to compete in a fair and balanced legal and regulatory
18 environment.”⁶⁷

19

⁶⁶ Joe S. Bain, *Barriers to New Competition*, Cambridge, Ma.: Harvard University Press, 1965 (Bain), p.3.

⁶⁷ See FCC First Report and Order, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket 96-98, FCC 96-325 (“FCC Local Competition Order,”), released August 8, 1996, at ¶308-310, also FCC Memorandum Opinion and Order, FCC 97-25, re: California Payphone Association Petition for Preemption of Ordinance No. 576 NS of the City of Huntington Park, California Pursuant to Section 253(d) of the Communications Act of 1934, CCB Pol 96-26, released July 17, 1997, at ¶¶31, 42.

1 In the new competitive environment, where cable operators and new local telecommunications
2 carriers are competing directly against not only incumbent telephone companies, but electric
3 utilities, their affiliates, and/or other companies in which the utility has an interest, the incentives
4 for monopoly abuse and the erection of barriers to competition have become even greater. So
5 too, the pro-competitive benefits of effective regulation in preventing both price and non--price
6 barriers to entry, including potentially onerous terms and conditions associated with access to
7 pole and conduit facilities, have become all the more important in the post-1996 Act period.

8
9 By virtue of the utility's ownership and control of existing pole and conduit networks, cable
10 companies and other third-party licensees negotiating access to these essential facilities do not
11 enjoy even close to an equal bargaining position with regard to the setting of rates or the terms
12 and conditions of access. The existence of an equal bargaining position between the utility and
13 third-party licensees over rents, and other terms and conditions of access, or alternatively, a "free
14 market" for poles, would require the existence of an established, active market for pole and
15 conduit space in which cable and other third-party attachers have realistic choices with regard to
16 renting and/or providing their own pole or conduit space. Only under such conditions (non-
17 existing in the real world), where there are viable competitive alternatives for pole and conduit
18 space available to third-party attachers, would utilities be unable to charge exorbitantly high
19 prices relative to cost or to impose potentially onerous terms and conditions relative to access to
20 these facilities.

21
22 In the absence of such free market conditions and equal bargaining positions of third-party
23 attachers vis-a-vis the utility owners, effective regulatory intervention must be relied upon to

1 provide the countervailing balance. Without effective regulatory intervention, third-party
2 attachers, on their own, would have little recourse but to accept the “take it or leave it”
3 conditions for pole attachment offered by the utilities. Effective regulatory intervention is
4 needed to help ensure an outcome that effectively and efficiently balances the interests of the
5 utility and the third-party attacher, and at the same time promotes the public policy goals of a
6 competitive telecommunications market and the widespread deployment of advanced
7 information-age services and technology.

8
9 In this context, as described further below, many of the provisions included in Duke’s proposed
10 pole attachment/conduit occupancy tariff would enable the utility to further exploit its monopoly
11 ownership of the pole network and create barriers to entry, contrary to effective pole attachment
12 regulation and at the expense of broadband and other advanced services deployment.

13
14 **There are several interrelated economic and public policy criteria underlying a set of core**
15 **principles of effective pole attachment regulation for the PUCO to apply in evaluating the**
16 **appropriateness of individual tariff provisions.**
17

18 **Q. WHAT STANDARDS SHOULD THE PUCO APPLY IN EVALUATING THE TERMS**
19 **AND CONDITIONS ASSOCIATED WITH ACCESS TO DUKE’S POLE AND**
20 **CONDUIT FACILITIES IN ORDER TO EFFECTIVELY REGULATE AGAINST**
21 **POTENTIAL MONOPOLY ABUSES?**

22 A. There are several important and interrelated economic and public policy criteria for the PUCO
23 to apply in evaluating the appropriateness of the terms and conditions under which Duke
24 proposes to provide cable operators and other third-party attachers access under its occupancy

1 tariff for poles and conduit. Key among the core principles underlying effective regulation of
2 essential pole and conduit facilities are the following:

3
4 • *Competitive neutrality:* Pursuant to the concept of competitive neutrality described above,
5 the PUCO should reject any term or condition that would “materially inhibit or limit the
6 ability of any competitor or potential competitor to compete in a fair and balanced legal and
7 regulatory environment.” This would include any provision that is applied in a
8 discriminatory manner and/or has the effect of relatively disadvantaging a cable attacher
9 relative to any other attacher including the incumbent telephone company, the utility pole
10 owner or an affiliate, and/or any company in which the utility has an interest.

11
12 • *Effectively competitive or free market:* A free market, generally synonymous with the
13 economic ideal of a competitive market, is generally defined as one in which there are
14 numerous buyers and sellers such that neither buyer nor seller can influence the price or
15 other terms of sale, and neither party is under any compulsion to buy or sell. Pursuant to the
16 free market standard, the PUCO should reject any term or condition that would not reflect an
17 outcome consistent with that which would result from negotiations between a cable operator
18 and the utility if the two parties had equal, or close to equal, bargaining power.

19
20 • *Cost causation:* Under the economic principle of cost causation, costs are properly attributed
21 to the entity causally responsible, i.e., the entity but for whose existence (or action) a cost
22 would not have been incurred. In keeping with the principle of cost causation, the PUCO
23 should reject any term or condition that would result in a third-party cable attacher being

1 attributed or charged a fee unrelated to, or materially more than, the costs directly attributable
2 to its own actions or existence and/or that would result in a double-recovery of costs or a
3 recovery of costs for which there is no lost economic opportunity for the utility.

- 4
- 5 • *Public Interest:* This fourth criterion recognizes that in addition to the respective benefits to
6 the parties directly involved (i.e., the private benefits of the transaction to the utility and
7 third-party attachers, respectively), there are important public benefits that accrue to society
8 at large from third-party access to utility pole and conduit facilities. From a “societal
9 welfare” point of view, there is economic value associated with the efficient use of resources,
10 i.e., the use of resources resulting in the lowest overall cost to society and the best possible
11 utilization of those resources as compared with alternative uses. Application of a public
12 interest standard dictates that the appropriate economics and public policy calculus considers
13 the cost and benefit of a particular term or condition not in terms of the narrowly-defined
14 pecuniary interests of the pole owning utility but from the larger social welfare perspective.
15 By that, I am referring to the impact on consumers overall, and especially consumers of
16 broadband and other advanced services (which include the utility’s own electric ratepayers)
17 for which access to utility poles and conduit are key inputs.

18

1 Numerous provisions in Duke's proposed tariff are shown to violate core principles of
2 effective pole attachment regulation.
3

4 **Q. PLEASE IDENTIFY THOSE TERMS AND CONDITIONS IN DUKE'S PROPOSED**
5 **POLE/CONDUIT OCCUPANCY TARIFF WHICH ARE INCONSISTENT WITH THE**
6 **CORE PRINCIPLES FOR EFFECTIVE REGULATION YOU IDENTIFY ABOVE.**

7 A. There are several terms and conditions in Duke's proposed tariff that violate the core
8 principles identified above, some of which are addressed in Staff's Report, but many of which
9 are not. These items are addressed in turn in order of the section of Duke's proposed tariff in
10 which they appear.

11
12 *Applicability*

13 In this section of Duke's proposed tariff, Duke specifically limits the applicability of the tariff to
14 a "wireline attachment," narrowly defined as "the attachment of wire or cable and associated
15 facilities or apparatus within one (1) foot of vertical space." The second paragraph of this section
16 specifically excludes from this tariff "wireless and WI-FI equipment /attachments and
17 overlashing of existing attachments" and further puts "at the sole discretion of the Company"
18 decisions as to the "size, type and placements of any attachment or occupancy that is not subject
19 to this Tariff."

20 Staff appropriately "recommends the proposed second paragraph under Applicability be
21 deleted," correctly recognizing the unreasonableness of Duke's proposal to arbitrarily limit the
22 applicability of the tariff and the fact the aforementioned language "vests too much discretion

1 with the Company.”⁶⁸ Arbitrary limitations of the tariff in the manner set forth in this section,
2 violates the principle of competitive neutrality in that it specifically enables the utility to put
3 certain types of attachments and technology (e.g., wireless, WI-FI) at a competitive disadvantage
4 relative to others (e.g., wireline cable). In addition, Duke does not additionally charge for or
5 restrict incumbent telephone companies relative to the placement of overlashed equipment,
6 terminal boxes, risers, or the like.⁶⁹

7
8 This provision to limit the tariff’s applicability is also not justified on a cost causation basis, as
9 there is no additional cost burden to the utility associated with the types of attachments it seeks
10 to preclude. With respect to overlashing in particular, there is no valid cost justification for
11 requiring a separate permit or charge. Overlashing occurs on an attaching entity’s preexisting
12 and permitted attachment, and occupies the same foot of space for which the attacher is licensed
13 to occupy. There is no additional cost burden to the utility associated with overlashing, nor is
14 there any lost opportunity to the utility in terms of potential foregone use of space on the pole.

15
16 As found by the FCC in its decision not to require additional approval for overlashing (other than
17 that for the preexisting host attachment), if anything “overlashing existing cable reduces
18 construction disruption and associated expense.”⁷⁰ The New York Public Service Commission
19 reached a similar finding in its own pole investigation, on the basis of among other

⁶⁸ Staff Report at 23.

⁶⁹ See Deposition Testimony of Ulrich Angleton, dated December 15, 2008, at 45-46 (Att. 13), Deposition of Teresa Brierly, dated December 15, 2008, at 28. (Excerpts of Teresa Brierly’s deposition dated December 15, 2008 provided in Attachment 14 to this testimony.)

⁷⁰ 2001 FCC Pole Order, at ¶¶73-75.

1 considerations, the immaterial impact of overlashing “on the existing facilities’ overall weight
2 and bundle diameter.”⁷¹ Given the lack of a cost basis or other economic justification for a
3 separate charge, a free market outcome would not unbundle the pricing of the overlashed
4 equipment from that of the host attachment. The same is true for other ancillary equipment such
5 as cable power supplies and riser cables which do not consume or otherwise preclude the use of
6 usable space on a pole. Finally, Duke’s proposal to arbitrarily limit the applicability of its tariff
7 has no public interest rationale. To the contrary, if adopted as written, it would serve to raise
8 costs to consumers of broadband and other advanced services without any corresponding public
9 benefit.

10

11 *Agreement*

12 In the same manner that Duke proposes to restrict the type of attachment allowed pursuant to the
13 occupancy tariff under the Applicability section, Duke proposes in this section the right to
14 “specifically authorize the type of service to be provided, e.g., cable television.” This provision
15 would give Duke the ability, for example, to restrict a cable company from offering such
16 advanced services as Voice over Internet Protocol (VoIP). As discussed in regard to the previous
17 section of the tariff, to inject such restrictions into the tariff serves no cost causative or public
18 interest purpose, and violates the concept of competitive neutrality.

19 This section would also give Duke undue discretion by inclusion of language that “expressly
20 reserves [for Duke] “the right to establish terms and conditions in the Agreement that are not
21 inconsistent with this Tariff.” This particular language would effectively allow Duke to
22 unilaterally change the terms and conditions to its own benefit, in further violation of the core

⁷¹*Proceeding on Motion of the Commission Concerning Certain Pole Attachment Issues, Order Adopting Policy*

1 principles of effective regulation. Staff’s finding in connection with the prior section of the
2 tariff (and other following sections as well) of the unreasonableness of any term or condition that
3 “vests too much discretion with the Company” applies in equal force to this section.

4
5 *Application*

6 This section contains another example of language that would provide Duke with unfettered
7 discretion to exercise its monopoly control over essential pole and conduit facilities, and which
8 Staff appropriately recommends be removed from tariff because “an attacher would have no
9 recourse should the Applicant discriminatorily exercise this provision.”⁷² Specifically, Duke
10 seeks the “sole right to determine the availability of such pole or conduit and shall be under no
11 obligation to grant permission for its use by Licensee.” Consistent with the other instances
12 where Duke seeks “sole” discretion, this language would similarly afford Duke the opportunity
13 to act in an arbitrary and discriminatory manner such as to competitively disadvantage a cable
14 attacher relative to another attacher including the incumbent telephone company, Duke or Duke
15 affiliate, and/or other company in which Duke may have an interest. Under federal law, the
16 parties (utilities and third-party attachers) must agree that capacity is insufficient before any
17 denial of access can occur, and such denials have to be applied by the utility in a non-
18 discriminatory manner – meaning they would also apply to the utility’s *own* attachments as well
19 as to those of third-parties.⁷³

20
Statement on Pole Attachments (“2004 NYPSC Pole Order”) N.Y. P.U.C.LEXIS 306 (2004), Appendix A, pp. 8-9.
⁷² Staff Report at 24.

⁷³ See 47 U.S.C. § 224(f), also *Southern Company v. FCC*, 293 F.3d 1338 (11th Cir. 2002) at 1346-1349.

1 This particular type of clause has the potential of creating an insurmountable barrier to third-
2 party access that has no sound economic or public policy justification. From an economics
3 perspective, the only time there is truly insufficient capacity on a pole is in those limited
4 instances where make-ready work, including a pole change-out, is infeasible due to terrain,
5 obstructions, zoning restrictions and other such objective conditions.⁷⁴ Such instances exist,
6 although it is the rare exception that space cannot be rearranged or poles changed-out to make
7 such accommodations. As recognized in a recent case before the FCC pertaining to this issue,
8 “[w]hen capacity is available through rearrangement or expansion of a pole’s height, *its capacity*
9 *cannot be full* since there is no exclusion of another and no missed, foreclosed, or lost
10 opportunity.”⁷⁵ In this real economic sense, pole capacity is neither static nor finite, but dynamic
11 in nature, such that the sharing of poles does not generally result in either a physical or economic
12 exhaustion of the shared resource. This is true even if the pole appears “crowded.”⁷⁶ The same is
13 true for conduit, where the installation of inner duct in connection with third-party occupancy
14 creates additional pathways within the conduit. The utility can actually end up with *more*
15 pathways, i.e., greater available capacity, as a result of the third party’s attachment. As is the

⁷⁴ “Reasonable examples of poles at full capacity might include poles already at maximum design height under overhead transmission lines, poles near airport runways with their height limited by the Federal Aviation Administration, or poles whose height is limited by local government regulations.” *FCTA*, Complainants’ Trial Brief, dated April 18, 2006, at 44.

⁷⁵ See, e.g., *FCTA*, 22 FCC Rcd at ¶ 25.

⁷⁶ 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, 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, as is typically the case with poles, then it is not at full capacity.

1 case with additional pole capacity created through the make-ready process, the utility retains title
2 to the inner duct and may use or lease the additional duct space not being used by the third party.

3
4 In addition, this section would limit access to Duke's conduit "to the Company or its designated
5 representative." This language could be used in a discriminatory fashion to limit third-party
6 access in a manner that leads to unreasonable cost and delay and puts the attacher at a
7 competitive disadvantage. If safety or damage prevention is the motivating factor, a more
8 reasonable approach would be for Duke to provide a list of specified qualifications and training,
9 and any worker who meets these criteria could be permitted access to the leased facility.

10

11 *Technical Specifications*

12 This section specifies that all attachments be placed "in a manner satisfactory to the Company
13 and so as not to interfere with the present or future use that the Company may desire to make,"
14 and moreover, Duke specifies that "[t]he Company shall be the sole judge as to the requirements
15 for the present and future use of its poles, conduits, and equipment." This section violates the
16 core principles for effective regulation at two levels. First, as now evident as a recurring pattern
17 throughout the proposed tariff, Duke inappropriately asserts for itself the authority to be the "sole
18 judge" in regard to a situation where it would have the incentive and opportunity to take a
19 position that unfairly discriminated against and competitively disadvantaged the third-party
20 attacher with no offsetting social benefit.

21 Second, because of the inherently uncertain nature of any "future use" of utility facilities, any
22 assertion of future use as the basis to limit third-party access to utility poles or conduit would
23 necessarily have to be based on objective criteria demonstrating (1) the utility's bona fide need

1 for that space, and (2) that the future need *would otherwise be precluded* because of the lack of
2 available pole or conduit capacity. Otherwise, it would be trivial for the utility to say it required
3 the space sought by a non-affiliated third-party entity for its own use or interest since by simply
4 declaring so would result in the utility being able to impose additional costs on the third-party
5 entity on virtually any pole or conduit in its network.

6 In economic terms, a real opportunity cost or identifiable cost burden to the utility associated
7 with third-party occupancy of its poles or conduit exists only where it can be demonstrated an
8 actual future use would be specifically precluded as a direct consequence of the third-party
9 occupancy. As discussed in regard to the previous section, the circumstances where Duke's
10 poles or conduits would be at an economic state of full capacity are extremely limited given the
11 structurally dynamic nature of pole and conduit capacity. Hence, the potential likelihood a utility
12 could abuse a "future use" clause to unreasonably delay, limit, or deny third-party access to pole
13 conduit facilities far outweighs the potential likelihood the third-party occupancy would actually
14 preclude a future use of the facility.

15 Another problem area in this section is the requirement that all attachments or occupancies
16 comply with "any requirements that may be established by the Company." This statement is so
17 generically broad and open-ended as to allow Duke the ability to set requirements that serve
18 anticompetitive purposes with no public interest benefit. The section's required compliance with
19 the requirements of the National Electrical Safety Code and "any other applicable regulations or
20 codes promulgated by federal, state, local or other governmental authority having jurisdiction,"
21 in addition to the requirement that "Licensee shall take any necessary precautions....to protect all
22 persons and property of all kinds against injury or damage" would appear to be sufficiently
23 comprehensive to serve the legitimate safety purpose.

1 *Replacement Costs*

2 In this section, Duke seeks to recover from third-party attachers the “total cost” associated with
3 the Company’s replacement of a pole or conduit, including the costs of removing and
4 transferring all existing attachments, “because of the necessity of providing adequate space or
5 strength to accommodate the wireline attachment.” As written, this condition would apply not
6 only to those situations “at the request of Licensee” (i.e., at the time the Licensee seeks
7 permission for initial attachment), but also at any such time as “to comply with the above
8 mentioned codes and regulations.”

9
10 Consistent with the fundamental principle of cost causation, costs, and by extension rates based
11 on those costs, are “just and reasonable” in a meaningful economic sense when the entity
12 causally responsible (i.e., the entity but for whose existence or action a cost would not have been
13 incurred) is attributed those costs, but not materially more. As currently proposed, this section
14 would allow the utility to assess a third-party attacher substantially more than the costs the
15 attacher is causally responsible for. This is due to inappropriately broad language holding the
16 third-party attacher potentially responsible for replacement costs incurred at any time and any
17 manner and at the full discretion of the utility so as comply with unspecified and undefined
18 “above mentioned codes and regulations,” and that would include all costs related to the transfer,
19 removal, and re-establishment of all existing or like attachments on the newly installed pole or
20 conduit, including those of the utility owner.

21
22 In the absence of explicit language applying the principle of cost-causation, there is a real risk
23 here an attacher could end up paying for replacement costs unrelated to its own generated need,

1 and including those to accommodate the subsequent attachments of others including Duke, and
2 to deal with safety issues the attacher was not responsible for creating. Section 224, subsections
3 (h) and (i), of the federal Pole Attachments Act contain specific language to address this very
4 issue, by establishing that once a party obtains access to a pole, that party may not be forced to
5 incur any expense for activities undertaken that solely benefit another party, or are undertaken in
6 connection with an additional attachment or modification of an existing attachment sought by
7 another party, including the utility pole owner.⁷⁷

8
9 In addition, because this section would afford Duke the discretion to determine the time and need
10 for replacements to comply with unspecified and undefined “above mentioned codes and
11 regulations,” there is also the risk this section could be used by Duke in a strategic and
12 discriminatory manner to serve anti-competitive purposes and in violation of the principle of
13 competitive neutrality.

14
15 *Rearranging Costs*

16 This section specifies the Licensee will reimburse Duke for all costs incurred by the Company
17 and other licensees related to rearrangements made in connection with the Licensee’s proposed
18 attachment or occupancy. Similar to the preceding section, costs assigned pursuant to this
19 section should be done in accordance with the cost causation principle, such that only those costs
20 engendered at the time of the initial request for attachment and specifically related to the need to
21 accommodate that initial attachment are the responsibility of the attacher. Consistent with
22 Section 224 of the Communications Act, the attacher should not be assessed with any costs of

⁷⁷ 47 U.S.C. § 224(h)-(i).

1 rearrangements pertaining to the need to accommodate other attachers (including the utility pole
2 owner) and/or to deal with safety issues that the attacher is not responsible for creating. Other
3 state commissions that have certified authority over pole attachments have agreed.⁷⁸
4
5 In addition, language in this section would give Duke and other licensees the discretion *not* to
6 allow a third-party attacher onto Duke's pole or conduit, by refusing to make or allow the
7 possible rearrangement of the facility to permit the new attachment to be accommodated □
8 notwithstanding the fact that the third-party attacher pays for all related rearrangement expenses.
9 Allowing Duke and other licensees the ability to preclude a new third-party attachment for no
10 reason other than an "unwillingness" to do so, enables Duke and other actual and potential
11 competitors to construct what is tantamount to an absolute barrier to entry. Such explicit anti-
12 competitive behavior is in clear violation of the core principles of effective pole regulation.
13 Finally, there is language in this section to relieve the Company of any responsibility "for
14 coordinating the relocation of third party attachments." This language is objectionable for two
15 major reasons. First, as explicitly stated in Duke's proposed tariff in the Replacements section,
16 Duke, as the utility pole owner, maintains all "rights, title or interest in such pole or conduit,"
17 "regardless of any payments by [a third-party] Licensee towards it cost." The utility pole owner
18 stands to benefit in many concrete ways from the make-ready work improvements to its pole and
19 conduit plant, fully paid for by third-party licensees. Along with the rights and other ownership
20 benefits that the utility alone enjoys go the responsibilities of ownership such as the coordination

⁷⁸ The New York Public Service Commission agrees that "[i]f a legal attachment is made to a pole in compliance with safety standards, the legal Attacher should not be required to pay for rearrangement of its facilities for subsequent attachments," including those of the pole owner. *Proceeding on Motion of the Commission Concerning Certain Pole Attachment Issues, Order Adopting Policy Statement on Pole Attachments, 2004 N.Y. P.U.C. LEXIS 306 (2004).*

1 and control function Duke seeks to avoid here. Moreover, because the rental rate that Duke
2 charges third-party Licensees is a fully allocated cost, it recovers the pole attachment's allocated
3 portion of administrative and general expenses relating to the coordination function. It is
4 unreasonable for Duke to charge third-party attachers a rate based on fully allocated costs (as
5 opposed to a rate based on a much lower marginal cost standard) but then propose to withhold
6 some of those very functions those fully allocated costs encompass.

7

8 *Inspections*

9 This section, setting forth a new process for inspections of attachments and a set of penalties for
10 unauthorized attachments found during the inspection process, contains a number of provisions
11 that are problematic. First, as correctly recognized by Staff, Duke's proposal is punitive by
12 design, and it is unreasonable to even entertain the notion of charging penalties for unauthorized
13 attachments without first establishing a 'system-wide baseline...where all attachments have first
14 been audited.'⁷⁹ It serves no valid economic or public policy purpose, for example, to impose
15 penalties for unauthorized attachments which apply to attachments (such as on drop poles) which
16 at the time of their installation were not required to be separately permitted and therefore would
17 not have been considered "unauthorized." The FCC, in a ruling on a similar proposal by a utility
18 to impose unauthorized attachment fees retroactively to drop poles, found it would not be just or
19 reasonable to do so until after the date the utility gave notice it would begin charging a pole
20 attachment fee.⁸⁰

⁷⁹ See Staff Report at 25.

⁸⁰ See Federal Communications Commission, *In the Matter of Mile Hi Cable Partners, LP; Mountain States Video, Inc., d/b/a TCI of Colorado, Inc.; United Cable Television of Colorado, Inc., d/b/a TCI of Colorado, Inc.; TCI Cablevision of Colorado, Inc.; Heritage Cablevision of Tennessee, Inc.; and TCI Cablevision of Florida, Inc.*,

1
2 A valid purpose of imposing penalties of this nature would be to provide an economic
3 disincentive to third-parties to place unauthorized attachments and avoid paying an appropriate
4 rental rate to recover the costs they are causally responsible for. Absent the baseline audit, it is
5 not even known to what extent, if any, truly unauthorized attachments represent a significant
6 problem in Duke's system in terms of real economic or safety consequence. Given the fact
7 noted by Staff, that to its understanding, "the Applicant has never performed a complete,
8 systematic, system-wide audit of its pole attachments,"⁸¹ it would be reasonable to assume
9 unauthorized attachments historically have not been a significant concern for Duke.
10 That Duke has set these penalties to apply retroactively (e.g. to attachments on drop poles which
11 I understand Duke did not previously require a permit at time of installation),⁸² and at a dollar
12 amount far in excess of any foregone rental revenue is further demonstration of the punitive and
13 anti-competitive nature of Duke's proposal. By way of comparison, Duke's proposed penalties
14 of \$100 per unauthorized attachment or occupancy plus 5 years annual rental (if Licensee has not
15 participated in required audit) and \$50 per unauthorized attachment plus 5 years annual rental (if
16 Licensee has participated in required audit) far exceed the level of penalties found reasonable by
17 the FCC. The maximum for such penalties found reasonable by the FCC is 5 times the annual
18 pole rental (currently \$4.25 for Duke).⁸³ As with the setting of an appropriate pole rental rate, it
19 would also be instructive for the PUCO to examine the levels of unauthorized attachment

Complainant v. Public Service Company of Colorado, Respondent/Applicant, Application for Review, File No. PA 98-003, ("Mile High") Order, FCC 02-95, dated March 28, 2002, at ¶12.

⁸¹ See Staff Report at 25.

⁸² See Deposition of Ulrich Angleton, dated December 15, 2008, at 53-54 (Att. 13).

⁸³ See FCC Mile-High Order, March 28, 2002, at ¶9.

1 penalties, if any, charged by peer utilities including sister Duke Energy utilities, prior to
2 determining what would be an appropriate level for such charges for Duke in Ohio.

3
4 As a separate matter, requiring cable companies to get advance authorization to attach to a drop
5 pole (i.e., go through a full-blown permitting process prior to being allowed to attach),⁸⁴
6 something I understand they have not been required historically by Duke to do, or risk
7 unauthorized penalties going forward, raises a significant anti-competitive concern and potential
8 impact on the competitive playing field. Drop poles are used, where necessary, to connect an
9 individual customer's premises to the mainline distribution pole, such as in the case where the
10 customer's premise is usually far from the mainline. By the very nature of drop poles, a cable
11 company would not typically be able to plan in advance of a customer inquiry for service that it
12 would need to attach to a drop pole in order to connect that customer. Requiring the cable
13 company to go through the permitting process in advance of attaching to the drop pole would put
14 the cable company at a significant competitive disadvantage relative to the incumbent telephone
15 company or the electric utility since no such prior permitting requirement applies in the case of
16 the latter two. The cable company alone would either have to face a considerable delay in
17 getting service to the customer and risk losing that customer to a competitor, or face the risk of
18 paying a potentially significant unauthorized attachment penalty.

19
20 Finally, this section also inappropriately vests Duke with "sole discretion," in this instance in
21 regard to determining the frequency of periodic inspections/inventories. Because Duke proposes

⁸⁴ See Deposition of Donald Storck, dated November 21, 2008, at 95-96. (Excerpts of Donald Storck's deposition, dated November 21, 2008, provided in Attachment 15 to this testimony.)

1 the Licensee “reimburse the Company for the expense of such inspections/inventories,” Duke
2 would be able to use the inspection process as a means of effectively increasing the costs of
3 attachment for the Licensee for its own private gain. Duke would have both the opportunity and
4 incentive to shift costs appropriately borne by the utility as part of its provision of core electricity
5 services onto a third-party attacher, and also to impose unnecessary costs in a discriminatory
6 manner strictly for anti-competitive purposes.

7

8 *Safety Violations*

9 In this section, Duke proposes another new penalty of \$200 “for each wireline attachment or
10 occupancy that violates the codes, regulations, or requirements set forth in Paragraph 3
11 [Technical Specifications] above or in the Agreement.” In addition, Duke would require the
12 Licensee within ten days of the date of notice to “ensure its occupancy is removed, rearranged, or
13 changed as directed by the Company.”

14

15 The anti-competitive aspects of this proposal are similar in nature to that of the preceding section
16 concerning unauthorized attachment penalties. First, as recognized by Staff in connection with
17 Duke’s proposed penalties for unauthorized attachments, and again here related to penalties for
18 safety violations, it is unreasonable to consider implementing a system of penalties “until after a
19 complete audit of the system is performed and any violations are cured.”⁸⁵

20

⁸⁵ See Staff Report at 25.

1 Second, the issues concerning safety violations raised in this section, if appropriate, would apply
2 to *all* attachments on the pole. It is my understanding that Duke would also be likely to have
3 safety violations on the pole.⁸⁶ Moreover, it is my understanding that some of the safety
4 violations this section would attribute to and hold the cable operator responsible for correcting
5 could be due to actions by the utility pole owner, such as Duke's placement of additional
6 equipment on the pole subsequent to the cable company's initial attachment.⁸⁷ To ensure a level
7 playing field, and to serve the purported purpose of this section, i.e., to address any "hazard to
8 the service rendered by the Company or other licensee," any such provision should apply even
9 handedly to all attaching entities, including the incumbent telephone company and the pole
10 owning utility itself. Otherwise, this provision is functioning more as a vehicle by which the
11 utility can discriminatorily raise the costs of attachment to the cable company. Moreover, to
12 properly incent the utility from making improper attachments, or using this provision in a
13 discriminatory or anti-competitive manner, the fees collected should not go to the utility itself,
14 but to an appropriate governmental entity charged with oversight authority such as the PUCO.
15
16 Finally, the provision that the Licensee would have only ten days after notice to remedy a
17 claimed safety violation is on its face unreasonable and discriminatory, as it is my understanding
18 that Duke would not subject either the incumbent telephone or itself to such an expedited time
19 frame to remedy a violation.⁸⁸ By way of contrast, the Company is proposing it be given up to

⁸⁶See Deposition Testimony of Teresa Brierly, dated December 15, 2008, at 37-41 (Att. 14).

⁸⁷ See Deposition Testimony of Donald Storck, dated November 21, 2008, at 129-130 (Att. 15).

⁸⁸ See Deposition Testimony of Donald Storck, dated November 21, 2008, at 134-135 (Att. 15).

1 forty-five days to process a permit application, and even compared to the current thirty day
2 application processing schedule requirement Staff is recommending the PUCO keep in place, the
3 ten day timeframe Duke would impose unilaterally upon the cable company in this section would
4 seem not even close to representing a balanced situation between the parties.

5

6 *Expiration of Agreement*

7 This section allows for the termination of the agreement “by either Party’s giving to the other
8 Party written notice at least sixty (60) days prior to the end of any yearly term.” Upon
9 notification, “Licensee shall completely remove its wireline attachments...or direct the Company
10 to remove, at Licensee’s expense...on or prior to the termination date, unless a new Agreement
11 covering such poles or conduit has been executed by the Parties hereto.”

12

13 As written, this section gives Duke unfettered discretion to terminate the agreement on an annual
14 basis, and demand the Licensee enter a new Agreement offering much less favorable terms and
15 conditions “on a take it or leave it basis” in order to keep its attachments to Duke poles and
16 conduit intact. While the language theoretically gives “either Party’ the ability to terminate the
17 agreement annually, a clear asymmetry exists between Duke, as the monopoly owner of the pole
18 and conduit facilities, and the Licensee who faces no practical choice but to attach to Duke’s
19 facilities. Simply put, “[p]ower companies have something that cable companies need: pole
20 networks.”⁸⁹ Indeed, it was this fact combined with Congressional concern about the prices,
21 terms and conditions a utility could seek to extract from cable companies that led to the forced
22 access provision of the 1996 Act, requiring utilities to provide access to cable companies subject

⁸⁹See *Alabama Power*, 311 F.3d at 1362-1363.

1 to expressly limited exception.⁹⁰ As written, the language in this section would give Duke the
2 ability to fully exploit its monopoly power in a complete end run around effective pole
3 attachment regulation.

4

5 **Q. MS. KRAVTIN, DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

6 A. Yes, it does.

⁹⁰ Id.

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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 public 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.

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"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.

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"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.

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2008

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2006

Before the **State of New Jersey Board of Public Utilities**, Office of Administrative Law, *in the Matter of 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, filed September 29, 2006; rebuttal filed November 17, 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.

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.

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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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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 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'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.

1 **MAJOR COMPONENTS OF FCC POLE RATE FORMULA METHODOLOGY**

2 The FCC pole rate formula consists of the following three major components: (1) the net
3 investment per bare pole, (2) a carrying charge factor, and (3) the percent of capacity (i.e., total
4 usable space) occupied by an attacher.⁹¹

5 Expressed as an equation, the FCC formula applicable to cable operators is as follows:

6
7 Maximum Pole Rental Rate =
8
9 $[Net\ Bare\ Pole\ Cost] \times [Carrying\ Charge\ Factor] \times [Usage\ Percentage]$
10

11 **NET BARE POLE COST**

12 The first step in calculating the net investment in bare pole cost is to calculate the utility's actual
13 capital costs, based on properly booked costs as reported on the FERC Form 1 Report in Account
14 364 ("Poles, Towers and Fixtures"). The utility's capital cost in poles is expressed as net pole
15 investment, defined as gross pole investment, less accumulated depreciation for pole plant, less
16 accumulated deferred taxes applicable to poles. This generates the net investment in pole plant,
17 which is then reduced by deducting the value (presumed to be 15% in the case of electric
18 utilities) of pole appurtenances and other fixtures from which cable operators derive no benefit.
19 This generates the net investment in "bare" pole plant, which is then divided by the statewide
20 total of poles the utility has in service, producing a net cost per bare pole. The calculation of
21 accumulated depreciation and accumulated deferred taxes associated with the 364 plant account
22 is described below in the discussion of the next component of the FCC formula, the carrying
23 charge factor. The final step in calculating a net bare pole cost is to divide the derived net

1 investment in pole plant figure by the total number of poles the utility has in service. While for
2 telephone utilities, this number is publically reported in the ARMIS data base, there is no
3 corresponding public reporting of poles in service in the FERC Form 1 for electric utilities.
4 Rather, the number of poles is a data input that must be obtained from the utility in order to
5 perform the rate formula calculation.

7 ***CARRYING CHARGE FACTOR***

8 The carrying charge factor (CCF) is used to convert the net cost per pole into an annual rental
9 amount. The carrying charge factor is comprised of the sum of five different expense factors -
10 maintenance, depreciation, administrative, taxes, and overall rate of return, expressed as a
11 percentage of expense to net plant in service. The derivation of the five elements of the Carrying
12 Charge Factor (CCF) is as follows:

13 *Administrative and Tax Elements:* Expenses relating to these two elements of the CCF are
14 tracked in the FERC Form 1 at the aggregate level of electric plant in service. Accordingly, for
15 those two elements, under the FCC formula, the CCF is calculated by taking the relevant expense
16 account figures per FERC Form 1 (Accounts 920-931,935, and Accounts 408-411⁹²),
17 respectively) and dividing them by net plant in service for total electric plant (i.e., gross electric
18 plant less accumulated depreciation less accumulated deferred taxes.).

⁹¹ See *FCC Consolidated Partial Order on Reconsideration, CS Docket 97-98, 97-151, FCC 01-170*, at Appendix D-2 (May 25, 2001) (setting forth the specific formulas and FERC accounts to be used when calculating the pole rate for electric utilities).

⁹²Account 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.

1 *Maintenance*: Expenses relating to this element of the CCF is tracked at a more granular level in
2 Account 593 (“Maintenance of Overhead Lines”), which under the FCC formula is associated
3 with the following three distribution plant in service accounts: Account 364 (“Poles, Towers,
4 and Fixtures”), 365 (“Overhead conductors and devices”) and 369 (“Services”). Accordingly, the
5 CCF for that element is calculated by dividing the amount of maintenance expense recorded in
6 Account 593 by the net plant in service associated with each of these three individual accounts.

7 An additional step is required in the calculation of the net plant in service associated with these
8 three distribution plant accounts, because neither accumulated depreciation nor accumulated
9 deferred taxes is tracked at the level of granularity of the individual plant accounts in the FERC
10 reporting system. Accumulated depreciation (Account 108) is reported at the more aggregated
11 level of total distribution plant in service, and accumulated deferred taxes (Accounts 281-
12 283,190⁹³) are reported at an even greater level of aggregation, i.e., total electric plant in service.
13 Under the FCC formula approach, expenses are allocated to individual plant accounts based on
14 relative investment, using a method referred to as prorating.

15 To prorate, one simply takes the aggregate expense figure and multiplies that figure by the ratio
16 of the individual plant in service account to the relevant aggregated plant in service figure. While
17 prorating is simple to perform, it is important for reliability purposes that the aggregated plant in
18 service figure contained in the denominator of the ratio and used to prorate expense be consistent
19 with the level of aggregation of the expense figure contained in the numerator.

⁹³Account 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.

1 Accumulated depreciation is tracked at the level of total *distribution* plant; accordingly, it is
2 properly prorated to Accounts 366, 367, and 369, by multiplying the aggregate accumulated
3 depreciation figure for *distribution* plant by the ratio of gross plant in service for each of the
4 respective individual accounts to gross *distribution* plant. Similarly, accumulated taxes is
5 tracked at the level of total *electric* plant; accordingly, it is properly prorated to the individual
6 accounts by multiplying the aggregate accumulated deferred tax figure for *electric* plant by the
7 ratio of gross plant in service for the respective individual accounts to gross *electric* plant in
8 service.

9 *Depreciation:* The CCF for depreciation is based on the FERC-prescribed depreciation rate for
10 pole plant. Because that rate applies to *gross* investment, and the other elements of the CCF are
11 expressed on a *net* plant basis, it is necessary to multiply the depreciation rate for conduit plant
12 by the ratio of gross pole investment (Account 364) to the calculated net pole investment. The
13 net pole investment associated with Account 364 is derived using the same method of proration
14 described above for maintenance expense.

15 *Overall rate of return:* The FCC methodology uses the most current state authorized rate of
16 return. Where none is available, the FCC default rate of return may be used.⁹⁴

17 ***USAGE PERCENTAGE***

18 A. Attaching parties only pay for a proportional percentage of the pole plant they actually use in
19 relation to the amount of “usable space” on the pole. The use ratio is therefore expressed as the

⁹⁴ The FCC default rate of return is the rate of return authorized by the FCC (11.25%) in its last rate of return proceeding in 1990.

1 amount of space occupied by an attachment divided by the “usable space” on a utility pole. FCC
2 rules presume that cable attachers occupy one foot of space on a utility pole.⁹⁵ It is also
3 presumed that an average utility pole is 37.5 feet tall and has an average of 13.5 feet of usable
4 space.⁹⁶ The presumed usage percentage is therefore 1/13.5 or 7.41%.

⁹⁵ 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).

⁹⁶ 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).

1 **MAJOR COMPONENTS OF FCC CONDUIT RATE FORMULA METHODOLOGY**

2 Similar to poles, there are three major components of the FCC formula applied to conduit. These
3 are (1) the net unit (linear) cost, (2) the percent of capacity occupied by an attacher, and (3) the
4 carrying charge factor, as shown in the formula below:

5 $Maximum\ Rate = [Net\ Linear\ Cost\ of\ a\ Conduit] \times [Carrying\ Charge\ Rate] \times [Percentage\ of$
6 $Conduit\ Capacity]$

7 **NET LINEAR COST OF CONDUIT**

8 Under the FCC methodology, the first step in deriving the net linear cost of conduit is the
9 utilities' actual or embedded "booked" costs, as reported on the FERC Form 1 Report in Account
10 366 ("Underground Conduit"). For conduit, the utility's actual embedded cost is expressed in the
11 methodology as net conduit investment, defined as gross conduit system investment account less
12 accumulated depreciation, less accumulated deferred taxes. The net conduit system investment is
13 then divided by total system conduit length to arrive at the net linear cost of conduit. Most
14 typically, total system conduit length is measured in duct feet, although it can also be expressed
15 in conduit feet with the formula applied using established relationships between duct and conduit
16 feet within the system.

17 **PERCENT OF CONDUIT CAPACITY OCCUPIED**

18 A. When the net linear cost of conduit is expressed in duct feet, the percentage of conduit
19 capacity is arrived simply by dividing one by the number of inner ducts within the duct. In
20 instances where no inner duct has been installed within the duct, the FCC formula follows the so-
21 called half-duct convention, which presumes an attacher occupies only half of the usable duct

1 space. Using that presumption, the percentage of conduit capacity used in the formula simplifies
2 to one-half.⁹⁷

3 However, the FCC has recognized that where the attacher pulls inner duct, the amount of usable
4 space occupied by the attacher will generally be less than half, and use of the half-duct
5 convention will create too large a presumption of usable space and an unreasonably high rental
6 rate. In its 2001 pole attachment decision,⁹⁸ the FCC retained the half-duct convention, but
7 revised the formula as described above to explicitly allow for the situation where the lessee pulls
8 inner duct, consistent with the notion underlying the FCC approach that attachers should only be
9 assessed for that amount of conduit space actually occupied. When there is the evidence to
10 demonstrate an even smaller portion of the duct is occupied through the use of inner duct, that
11 percentage should be used in the formula in place of the FCC presumption that a lessee occupies
12 one-half of the duct. As a general rule, where there is credible occupancy-specific data, reliance
13 on that data is preferable to the generic presumption.

14 ***CARRYING CHARGE FACTOR***

15 A. The carrying charge factor (CCF) used to convert the net linear capital cost of conduit space
16 into an annual rental amount is computed in exactly the same manner as described above for pole
17 attachments. The only difference is that the FERC accounts specific to conduit are used in place
18 of their pole counterparts. For example, in the calculation of the maintenance element, Account
19 594 (“Maintenance of Underground Lives”), is used in place of Account 593 (“Maintenance of

⁹⁷ Maximum Rate = [0.5 divided by Average Number of Ducts] times [Net Conduit Investment divided by System Conduit Length] times [Carrying Charge Rate].

⁹⁸ See Consolidated Partial Order on Reconsideration in FCC CS Docket 97-98, ¶95-98

1 Overhead Lines”), and correspondingly, the CCF for this element is calculated by dividing the
2 amount of maintenance expense recorded in Account 594 by the net plant in service associated
3 with the three relevant distribution plant in service accounts: Account 366 (“Underground
4 Conduit”), 367 (“Underground conductors and devices”) and 369 (“Services”).

5

Pole Attachment Formula For
Electric Utility Owners Using FERC Part 101 Accounts (excluding telecomm carriers)

A. Components			
1	Scale of Return		8.61%
2. Depreciation			
	Depreciation Rate	2.23% x	
	Gross Pole Investment	\$179,565,187	
	Net Pole Investment	\$97,622,687	\$18,183,445
3. Tax Expenses			
	Net Distribution Plant in Service - Accumulated Depreciation - ADIT (Acct 160, 255, 281-283)		
	59,641,948 + 123,152 + 9,973,405		
	1,763,333,257 - (817,843,098) - (175,763,145)		
4. Maintenance Expenses			
	FERC Account 493		
	(Investment in Accounts 364 + 366 + 368) - (Depreciation in 364 + 365 + 366) - (ADIT in 364 + 365 + 368)	21,709,094	
		21,709,094	8.60%
5. Distribution Pole Carrying Charges			
	Distribution Administrative and General Expenses		
	Net Distribution Plant in Service - Accumulated Depreciation - ADIT (Acct 160, 255, 281-283)		
	1,763,333,257 - (817,843,098) - (175,763,145)		
		72,778,390	
		986,625,213	7.50%
6. Distribution Pole Carrying Charge Rate			
	Rate of Return	8.61%	
	Depreciation Expense	6.38%	
	Federal, State, and Other Taxes	7.18%	
	Maintenance Expense	6.80%	
	Administrative Expense	7.50%	
	Total Annual Carrying Charge Rate	36.46%	
7. Net Investment Per Bare Pole			
	55.0% (Gross Pole Investment - Pole Depreciation Reserve) - ADIT for Poles		
	Number of Poles in Service	251,335	
		0.85	\$212.26
D. Exit Calculation			
	1 Net Investment per Bare Pole x Annual Carrying Charge = Annual Pole Cost		
	\$212.26 x 38.48%		\$81.68
	2 Annual Pole Cost x Attachment Percentage of Usable Pole Space x Attachment Rate for CATV		
	\$81.68 x 7.41%		\$6.05

*This information is redacted. It refers to
Depositions and Deposition Exhibits submitted
under seal on February 23, 2009*

Duke Energy Ohio
Pole Attachment Formula
For Electric Utility Pole Owners

<u>FCC Pole Attachment Rate Formula</u>	<u>Amount</u>	<u>Reference/Source</u>
1 Gross Pole Investment	*	A. Below
2 Pole Depreciation Reserve	*	B1 below
3 Crossarm Factor	*	(1 minus 2, minus O1.) times 15 percent
4 Accumulated Deferred Taxes	(\$175,764,145)	O. Below
5 Net Pole Investment	\$62,769,065	1. minus 2, minus O1.
6 Number of Poles	251,358	D. Below
7 Net Investment Per Bare Pole	\$212.26	5. minus 3. divided by 6.
8 Pole Maintenance		
A. Maintenance of Overhead Lines	\$21,709,094	E. Below
B. Total Investment in Poles	\$527,134,526	A. plus F. Plus G.
C. Depreciation Reserve	\$224,128,082	B1+B2+B3
D. Accumulated Deferred Taxes	\$56,332,409	O1+O2+O3
E. Total Investment in Poles - Net	\$246,674,035	6B. minus 8C. Minus 8D.
F. Pole Maintenance Ratio	8.90%	8A. divided by 8E.
9 Depreciation	6.38%	(1. divided by (1. minus 2. minus O1.)) times H.
10 Administration	7.50%	(1. divided by (J. minus K. minus O))
11 Taxes (Normalized)	7.19%	(L. through N.) divided by (J. minus K minus O)
12 Rate of Return	8.61%	T. Below
13 Total Carrying Charge	36.48%	8F. plus (9. through 12.)
14 Allocated Space	7.41%	1 divided by 13.5 (Pole Space Reserved)
15 Maximum Rate	\$6.05	(7. times 13.) times 14.

Input Data

A. Poles, Towers, & Fixtures (Acctg. 364)	*	OCTA TY Calculation based on CPR Ledger 101 Acctg (OCTA Deposition Exh. 14)
B. 1. Accum Depr. for FERC Acctg 364	*	Per Schedule WPB-3.3b, Witness C.J. Council adjusted to match OCTA corrected 364 plant investment
2. Accum Depr. for FERC Acctg 365	*	Per Schedule WPB-3.3b, Witness C.J. Council
3. Accum Depr. for FERC Acctg 369	\$34,957,075	Per Schedule WPB-3.3b, Witness C.J. Council
C. Distribution Plant	\$1,644,636,777	Staff Report Schedule B-1
D. Number of Distribution Poles	251,358	PD Process Improvement - Nancy Musser adjusted per OCTA TY Calculation
E. Mice of Overhead Lines (Acctg. 593)	\$21,709,094	Applicant's Schedule C-2.1
F. Overhead Conductors & Devices (Acctg. 365)	294,779,890	Per Schedule WPB-2.3b, Witness C.J. Council
G. Services (Acctg. 369)	\$2,789,439	Per Schedule WPB-2.3d, Witness C.J. Council
H. Depreciation Rate - Distribution Property	2.23%	Staff Report Schedule B-3.2a
I. Distribution Admin. & Gen. Exps.	\$72,778,360	Applicant's Schedule C-2 and Staff's Schedule C-3
J. Net Distribution Plant in Service	\$1,763,333,257	Staff's Schedule B-1
K. Accum. Depr. - Utility Plant in Service	(\$617,643,899)	Staff's Schedule B-1
L. Taxes Other Than Income Taxes	\$59,841,948	Staff's Schedule C-2
M. State Income Taxes Expense	\$123,152	Staff's Schedule C-4
N. Federal Income Taxes Expense	\$9,973,405	Staff's Schedule C-4
O. Accumulated Deferred Inc. Taxes (Acct 190, 255, 281-283)	(\$175,764,145)	Per Schedule B-6, Witness W.D. Wathen
1. ADIT for Poles (Acct 364)	\$18,193,445	Deferred Tax Calculation Worksheet
2. ADIT for Overhead Conductor (Acct 365)	\$31,496,935	Deferred Tax Calculation Worksheet
3. ADIT for Services (Acct 369)	\$5,642,029	Deferred Tax Calculation Worksheet
P. Accum. Def Invest Tax Credits (Acct. 255)	(182,083)	Per Schedule B-6, Witness W.D. Wathen
Q. Accum. Defar Inc Taxes - Acctg. Amort. (Acct. 281)	-	Per Schedule B-6, Witness W.D. Wathen
R. Accum. Defar Inc Taxes - Other Property (Acct. 282)	(197,676,839)	Per Schedule B-6, Witness W.D. Wathen
S. Accum. Defar Inc Taxes - Other (Acct. 283)	(4,762,733)	Per Schedule B-6, Witness W.D. Wathen
T. Rate of Return	6.61%	Staff Report Schedule D-1, Midpoint
U. Space Occupied	1.00	FCC Order Docket 97-151
V. Usable Space	13.5	FCC Order Docket 97-151
X. Pole Height	37.5	FCC Order Docket 97-151

This information is redacted. It refers to Depositions and Deposition Exhibits submitted under seal on February 23, 2009

Duke Energy Ohio
Allocation of Distribution Accumulated Deferred Tax Balances (Acct. 190)
To Plant Accounts 364, 365 and 369
As of March 31, 2008

	Allocated ADIT Amounts	FERC Form No. 1 Source
	(\$)	
Accumulated Deferred Taxes (Acct. 190)	27,049,300	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Investment Tax Credits (Acct. 255)	(182,083)	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Accel. Amort. (Acct. 281)	-	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Other Property (Acct. 282)	(197,878,639)	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Other (Acct. 283)	(4,752,723)	Per Schedule B-6, Witness W.D. Wathen
Accumulated Deferred Taxes for Electric	<u>(175,764,145)</u>	

	(\$)	% of Total	(\$)	
Distribution Electric Plant in Service ¹				
Total Plant	<u>1,644,636,777</u>	<u>100.00%</u>		
Poles (Acct. 364)	*	*	*	Staff's Schedule B-1 s C.J. Council as revised by OCTA TY Adjustment NPB-2.3b, Witness C.J. Council NPB-2.3b, Witness C.J. Council
Overhead Conductor (Acct. 365)	*	*	*	
Services (Acct. 369)	*	*	*	
Total Accts 364, 365 and 369			<u>58,332,409</u>	

¹ Duke Energy 2007 FERC Form No. 1

*This information is redacted. It refers to
Depositions and Deposition Exhibits submitted
under seal on February 23, 2009*

Duke Energy Ohio

Conduit Attachment Formula For
Electric Utility Owners Using FERC Part 101 Accounts (excluding telecomm carriers)

A. Components

1	Rate of Return	=	8.61%
2	Depreciation	=	3.19%
	Depreciation Rate		
	X Gross Conduit Investment		\$97,573,665
	Net Conduit Investment		\$29,403,258
			\$10,422,814

3. Tax Expense

Tax Expense			
Net Distribution Plant in Service - Accumulated Depreciation - ADIT (Acct. 100, 255, 281-283)			
	59,641,946	+	123,152
		+	9,973,495
	1,783,333,287	-	(617,643,899)
		-	(175,764,145)

4. Maintenance Expense

FERC Account 594			
(Investment in Accounts 306 + 307 + 309) - (Depreciation in 306 + 307 + 309) - (ADIT in 306 + 307 + 309)			
	87,573,665	+	271,786,728
		+	52,769,439
		+	60,058,308
		+	34,857,075
		+	10,422,814
		+	20,063,813
		+	5,842,039
		+	2,870,683
		+	252,804,057

5. Administrative Expenses

Distribution Administrative and General Expenses			
Net Distribution Plant in Service - Accumulated Depreciation - ADIT (Acct 100, 255, 281-283)			
	1,783,333,287	-	(617,643,899)
		-	(175,764,145)

B. Distribution Conduit Generation Charge Rate

Rate of Return	8.61%	% of Net Conduit Cost Per Year
Depreciation Expense	3.19%	
Federal, State, and Other Taxes	7.19%	
Maintenance Expense	1.08%	
Administrative Expense	7.50%	
Total Annual Carrying Charge Rate	27.46%	

C. Net Conduit Investment

Gross Conduit Investment - Conduit Depreciation Expense - ADIT for Conduit	
Number of Duct Feet of Distribution Conduit	
1	(97,573,665 - 29,403,258)
	14,532,286
	10,422,814
	= \$3.97

D. Rate Calculation

1	Net Investment per Duct Foot of Conduit x Annual Carrying Charge = Annual Cost per Duct Foot	
	\$3.97	x
	27.46%	
	= \$1.08	
2	Annual Conduit Cost Per Duct Foot of Conduit x Occupancy Percentage = Attachment Rate for CATV	
	\$1.08	x
	50.00%	
	= \$0.55	

Duke Energy Ohio

**Conduit Attachment Formula
For Electric Utility Conduit Owners**

<u>FCC Conduit Rate Formula</u>	<u>Amount</u>	<u>Reference/Source</u>
1 Gross Conduit Investment	\$97,573,685	A. Below
2 Conduit Depreciation Reserve	\$29,403,258	B1 below
3		
4 Accumulated Deferred Taxes	(\$175,764,145)	O. Below
5 Net Conduit Investment	\$57,747,613	1. minus 2.minus O1.
6 Duct Feet of Distribution Conduit	14,532,269	D. Below
7 Net Investment Per Duct Foot	\$3.97	5. minus 3. divided by 6.
8 Conduit Maintenance		
A. Maintenance of Underground Lines	\$2,670,893	E. Below
B. Total Investment in Conduit	\$422,139,852	A. plus F. Plus G.
C. Depreciation Reserve	\$124,417,139	B1+B2+B3
D. Accumulated Deferred Taxes	\$45,118,856	O1+O2+O3
E. Total Investment - Conduit	\$252,604,057	8B. minus 8C. Minus 8D.
F. Conduit Maintenance Ratio	1.06%	8A. divided by 8E.
9 Depreciation	3.13%	{1. divided by (1. minus 2. minus O1.)} times H.
10 Administration	7.50%	(I. divided by (J. minus K. minus O))
11 Taxes (Normalized)	7.19%	(L. through N.) divided by (J. minus K minus O)
12 Rate of Return	8.61%	T. Below
13 Total Carrying Charge	27.48%	8F. plus (9. through 12.)
14 Allocated Space	50.00%	1 divided by 2 ducts per conduit (presumptive conduit capacity occupied)
15 Maximum Rate	\$0.55	(7. times 13.) times 14.

Input Data

A. Underground Conduit (Acctg.366)	\$97,573,685	Per Schedule B-3, Witness C.J. Council
B. 1. Accum Depr. for FERC Acctg 366	\$29,403,258	Per Schedule WPB-3.3b, Witness C.J. Council
2. Accum Depr. for FERC Acctg 367	\$60,056,806	Per Schedule WPB-3.3b, Witness C.J. Council
3. Accum Depr. for FERC Acctg 369	\$34,957,075	Per Schedule WPB-3.3b, Witness C.J. Council
C. Distribution Plant	\$1,844,636,777	Staff Report Schedule B-1
D. Number of Duct Feet of Conduit	14,532,269	OCTA-INT-02-020 Adjusted per OCTA TY Calculation
E. Mlce of Underground Lines (Acctg. 594)	\$2,670,893	FERC Form 1, pg 322, line 150, col B
F. Underground Conductors & Devices (Acctg. 367)	271,796,728	Per Schedule WPB-2.3b, Witness C.J. Council
G. Services (Acctg. 369)	52,769,439	Per Schedule WPB-2.3d, Witness C.J. Council
H. Depreciation Rate - Distribution Property	1.85%	Staff Report Schedule B-3.2a
I. Distribution Admin. & Gen. Exps.	\$72,778,390	Applicant's Schedule C-2 and Staff's Schedule C-3
J. Net Distribution Plant in Service	\$1,783,333,257	Staff's Schedule B-1
K. Accum. Depr. - Utility Plant in Service	(\$617,643,899)	Staff's Schedule B-1
L. Taxes Other Than Income Taxes	\$59,641,946	Staff's Schedule C-2
M. State Income Taxes Expense	\$123,152	Staff's Schedule C-4
N. Federal Income Taxes Expense	\$9,973,405	Staff's Schedule C-4
O. Accumulated Deferred Inc. Taxes (Acct 190, 255, 281-283)	(\$175,764,145)	Per Schedule B-6, Witness W.D. Wathen
1. ADIT for Conduit (Acct 366)	\$10,422,814	Deferred Tax Calculation Worksheet
2. ADIT for Underground Conductor (Acct 357)	\$29,053,813	Deferred Tax Calculation Worksheet
3. ADIT for Services (Acct 369)	\$5,642,029	Deferred Tax Calculation Worksheet
P. Accum. Def Invest Tax Credits (Acct. 255)	(182,083)	Per Schedule B-6, Witness W.D. Wathen
Q. Accum. Defer Inc Taxes - Accel. Amort. (Acct. 281)	-	Per Schedule B-6, Witness W.D. Wathen
R. Accum. Defer Inc Taxes - Other Property (Acct. 282)	(197,878,639)	Per Schedule B-6, Witness W.D. Wathen
S. Accum. Defer Inc Taxes - Other (Acct. 283)	(4,752,723)	Per Schedule B-6, Witness W.D. Wathen
T. Rate of Return	8.61%	Staff Report Schedule D-1, Midpoint
U. Space Occupied	1.00	FCC Order Docket 97-151
V. Number inner ducts per conduit	2	FCC Order Docket 97-151

Duke Energy Ohio

Allocation of Distribution Accumulated Deferred Tax Balances (Acct. 190)
To Plant Accounts 366, 367 and 369
As of March 31, 2008

	Allocated ADIT Amounts	FERC Form No. 1 Source
	(\$)	
Accumulated Deferred Taxes (Acct. 190)	27,049,300	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Investment Tax Credits (Acct. 265)	(182,083)	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Accel. Amort. (Acct. 281)	-	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Other Property (Acct. 282)	(187,878,639)	Per Schedule B-6, Witness W.D. Wathen
Accum. Deferred Income Taxes - Other (Acct. 283)	(4,752,723)	Per Schedule B-6, Witness W.D. Wathen
	<u>(175,764,145)</u>	
Accumulated Deferred Taxes for Electric		
	(\$)	% of Total
Distribution Electric Plant in Service ¹		
Total Plant	<u>1,644,636,777</u>	<u>100.00%</u>
Conduit (Acct. 366)	97,573,685	5.93%
Underground Conductor (Acct. 367)	271,796,728	16.53%
Services (Acct. 369)	52,769,439	3.21%
	<u>45,118,656</u>	
Total Accts 364, 365 and 369		

¹ Duke Energy 2007 FERC Form No. 1

OCTA Test Year Adjustments
Duke Energy - Ohio

Acct 366 Adjusted for Test Yr

366 Plant	366 Plant	\$ Difference	
Test Yr	YRE 07	Gross Plant	% incr TY Plant
\$ 97,573,685	\$97,189,588	\$384,097	0.40%

Duct Feet of Conduit Adjusted for Test Yr

YRE 07	% incr TY Plant	TY Adjusted Pole Count
14,475,063	0.40%	14,532,269

Sources:

- Attachment Staff DR-60-001f Schedule B-3, Witness Council
- Attachment Staff DR-60-001j WPB-3.3c, Witness Council
- Attachment Staff DR-60-001e WPB-2.3c, Witness Council
- Duke Response to OCTA-INT-02-020

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 6
Excerpts of Deposition of Donald Storck of January 29, 2009

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.

DEPOSITION OF: DONALD STORCK (cont.)

January 29, 2009

2:50 p.m.

REPORTED BY:

Kristina L. Pedersen

1 me ask you this. The pole number that is the
2 denominator there, the 248,901 poles; do you see that?

3 A. Yes.

4 Q. That's a number that purports to be as of
5 year-end 2007, correct?

6 A. I'd have to verify where that came from. I
7 believe it is, but I need to -- subject to check.

8 Q. What would you use to check?

9 A. I received an e-mail which gave me that
10 number from the Small World system.

11 Q. Who did that come from?

12 A. Nancy Musser.

13 Q. Okay. You're aware that I've asked for all
14 documents on derivation of the pole number?

15 A. (No response.)

16 Q. Do you have any other documents other than
17 an e-mail that relates to that pole number?

18 A. Nope. That's the only document I have.

19 Q. Okay. But you believe that is a year-end
20 number subject to check?

21 A. Yes.

22 Q. Okay. So under "C" here what we have is we
23 have a year-end number for a pole investment of
24 223,000,000. We have a year-end number for

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 7
Excerpts of Deposition of James Dean of January 30, 2009

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.

DEPOSITION OF: JAMES DEAN (cont.)

January 30, 2009

9:00 a.m.

REPORTED BY:

Kristina L. Pedersen

1 should have done at the beginning here which is to
2 refer you to Exhibit Number 19. This is a notice of
3 rescheduling of the deposition dated January 13 and
4 ask you whether you are here to testify about the
5 Subjects for Examination 8 through 14?

6 A. Yes.

7 Q. Okay. Now, in terms of the errors that were
8 contained in 01-004 you mentioned that there were some
9 transfers. Were there any other errors?

10 A. I do see a change in the 2003 number that
11 was recorded here.

12 Q. Which number?

13 A. For the additions.

14 Q. And what was that change?

15 A. (No response.)

16 Q. Well, the numbers will speak for themselves.
17 But there was an increase in the amount for
18 additions --

19 A. Correct.

20 Q. -- specified, right?

21 A. Yes.

22 Q. All right. Do you know what the basis was
23 for the -- is the number that is now contained in
24 Exhibit Number 21 -- is that the correct number for

1 that?

2 A. Is that a question to me?

3 Q. Yes.

4 MS. SPILLER: Is that number accurate I
5 think is the question.

6 A. Yes.

7 Q. The \$9,000,000 number?

8 A. Yes.

9 Q. All right. Is the number also different for
10 the additions for 2004?

11 A. Yes. There seems to be approximately an
12 \$800 difference.

13 Q. And what was the reason for those errors?

14 A. When it was tied back to the FERC, I'm aware
15 of the \$800 error. There was an \$800 adjustment that
16 was on the FERC that had been shifted over -- shifted
17 in the FERC to an adjustment column on the original
18 document that had been included here on the document
19 provided on POD-01-004 in the addition column.

20 Q. Well, there weren't any adjustments shown in
21 POD-01-004, were there?

22 A. No, there was not.

23 Q. And there were no transfers reflected,
24 right?

1 A. That is correct.

2 Q. This document, POD-01-004, that purported to
3 be a summary of the CPRs, correct?

4 A. Correct.

5 Q. Now, in December, around December 23, OCTA
6 was supplied INT-02-015 which purports to be a summary
7 of the CPR as the additions and retirements for
8 Account 364 for the years 1993 through 1999; do you
9 see that?

10 A. Yes.

11 Q. Okay. Were there any errors in that?

12 A. Yes.

13 Q. Who prepared this document, INT-02-015?

14 A. I would have to go back and look in my notes
15 for that to discover that.

16 Q. So you don't know who prepared it?

17 A. It was either -- it could have been Roger
18 Selm or myself at that time.

19 Q. And if you did not prepare it, did you
20 review it before it was submitted to OCTA?

21 A. I do not recall reviewing it before then.

22 Q. But you may have prepared it?

23 A. Yes. I know that I had prepared the
24 INT-03-022.

1 Q. Well, I'm not going to -- I'm not there yet.
2 The quantity numbers reflected in INT-02-015, do you
3 see that they're all different than they -- the
4 quantity numbers that are reflected in INT-03-022?

5 MS. SPILLER: Again, object to the
6 form. Go ahead.

7 A. Yes.

8 Q. Can you tell me why they were -- well, are
9 they correctly stated in 03-022?

10 A. Yes.

11 Q. How do you know that?

12 A. I prepared it. I reviewed it. I tied all
13 the numbers that I could dollar-wise to the FERC.

14 Q. Okay. You tied them to the FERC. Did you
15 tie them --

16 A. Dollar-wise.

17 Q. -- did you tie them dollar-wise to the CPR
18 records?

19 A. Yes.

20 Q. How did you do that?

21 A. By running the Power Plant system, turning
22 it back, looking at all the activity, and asking it
23 for a result of what the additions, what the
24 retirements were, and what the balance was.

1 Q. And when they didn't coincide exactly, were
2 there transfer amounts that reflect that -- those
3 differences?

4 A. There are transfers amounts that have been
5 added to this, yes.

6 Q. And the transfer amounts were placed there
7 to tie the CPRs to the purported FERC numbers?

8 A. The transfers tied to the FERC had to be
9 added there to balance. And the quantities were
10 adjusted for the transfers and also for -- in Power
11 Plant there is quantities that may have a zero value.
12 The Power Plant system does not show those initially.
13 You have to turn on all activities to see that. As I
14 rolled this back I discovered there was a few
15 quantities that had a zero value. That was one reason
16 that the quantities changed.

17 Q. Well, please don't confuse the quantities
18 and the dollar amounts, all right?

19 A. Okay.

20 Q. First of all, let's talk about the dollar
21 amounts. There are transfer amounts reflected on
22 03-022?

23 A. Correct.

24 Q. Are there records that Duke has of the -- or

1 had at the time that you were preparing 03-022 for
2 those transfers?

3 A. Yes.

4 Q. What was the form of those records?

5 A. The form of the record is a report out of
6 Power Plant indicating what the transfers were.

7 Q. Okay. Now, Power Plant was installed in
8 2000, correct?

9 A. That is correct.

10 Q. And so prior to 2000 how did you determine
11 the amount of the transfers?

12 A. Prior to 2000 I used the FERC reports.

13 Q. So you used the transfers to tie the -- to
14 take the year-end CPR number and have it coincide with
15 the number that was reported to FERC?

16 A. Correct.

17 Q. Now, for the years 2000 to 2007 does Duke
18 have -- did Duke have a transfer record in its files
19 or its computer system reflecting the amounts of the
20 transfers that are listed on 03-022?

21 A. From 2000 through 2007, yes.

22 Q. And how were those transfer amounts recorded
23 in the records?

24 A. (No response.)

1 Q. I didn't understand your answer to that.

2 A. And I'm not understanding your question.

3 I'm sorry.

4 Q. Okay. Well, let me --

5 A. Can you -- the transfers --

6 Q. -- well, we'll come back to that.

7 A. Okay.

8 Q. Okay. For the quantity numbers reflected on
9 03-022 from 1993 through 2000, those numbers are all
10 different than they were in INT-02-015 --

11 MS. SPILLER: I'm going to object --

12 Q. -- do you see that?

13 MS. SPILLER: -- to the form. There
14 are three columns of quantity listed here.

15 MR. GILLESPIE: That's fair enough.

16 Q. I'm talking about the quantity column that
17 is the second to last column on the page of 03-022.
18 This is the year-end quantity number, correct?

19 A. The '93 through '99 on 03-022 ties to the
20 historical CPRs, yes.

21 Q. Okay. Can you explain to me why the numbers
22 in the similar column on 02-015 did not also tie to
23 the year-end quantity numbers for the CPR records?

24 A. I would believe that when they created the

1 quantities, they did not go back to the original CPRs
2 to tie back. They had taken the information from the
3 2000 and worked their process down based upon addition
4 and subtraction of the adds and retires.

5 Q. Now, 03-022, both the additions amounts and
6 the final year-end amounts continue to reflect items
7 that were incorrectly recorded in Account 364, GL 106,
8 correct?

9 A. That is correct.

10 Q. Can you tell me why those amounts have not
11 been corrected on this summary?

12 A. The reason these were not corrected is
13 because we made no attempt to stay in sync with the
14 FERC reports. We did not try to go back and change
15 the historical data for this.

16 Q. At the time that 03-022 was prepared you
17 knew that the final balance numbers for Account 364
18 were incorrect as listed on this form, correct?

19 A. I believe so, yes.

20 Q. You see that on -- well, I would ask you to
21 compare POD-01-004, the quantity column that appears
22 just before the -- the quantity under balance to the
23 quantity under balance for 03-022. Do you see that
24 those numbers are also different?

1 A. I do.

2 Q. What's the reason for that difference?

3 A. The reason for the difference is in Power
4 Plant when you run for a quantity, you have to -- if
5 you want a grand total quantity, there is a feature in
6 Power Plant where you have to turn on the zero-based
7 records that may have a quantity.

8 At the time they ran this original report
9 they did not have that turned on. As I worked this
10 issue backwards turning on all activity it was
11 discovered that had not been switched on.

12 Q. Okay. Did that also reflect the -- does
13 that also change the quantity numbers for the
14 additions?

15 A. It could have an impact on them, yes.

16 Q. Would you look at the -- compare the
17 additions column for quantity on 01-004 to the
18 additions column quantity on 03-022. Do you see any
19 differences?

20 A. No, I do not.

21 Q. Can you explain that to me, please, for me?

22 A. When they ran the additions, they
23 conceivably had that switch turned on.

24 Q. Do you know whether they did?

1 necessarily the beginning, but toward the end, you
2 indicated that these quantity amounts would be the
3 number of poles -- the actual number of poles included
4 in Account 364 that have been classified to Account
5 101 to GL 101 as well as the number of times that
6 projects have been costed out for GL 106?

7 A. Correct.

8 Q. Okay. It doesn't represent the number of
9 poles total in Account 364 when you include both GL
10 101 and GL 106?

11 A. Correct.

12 Q. Okay. And when investments are made in
13 Account 364, they are first placed in GL 107 as
14 construction work in progress, right?

15 A. Correct.

16 Q. And then when they are placed in service,
17 they're transferred to GL 106, correct?

18 A. Correct.

19 Q. And that's completed construction not
20 classified?

21 A. Correct.

22 Q. And then later they're classified and placed
23 in Account 101, right?

24 A. Correct.

1 start, at the accounting level or GIS level, field
2 process?

3 Q. Well, why don't you, first of all, go
4 through the accounting process and then the GIS field
5 process.

6 MS. SPILLER: I'm going to just note my
7 objection to the extent this is beyond the
8 scope of this deposition. Go ahead, Jim.

9 A. The accounting process I believe as we've
10 covered starts with the initiation of a project, a
11 work order. Charges go into those work orders during
12 the construction period that's relative to the 107
13 accounting. The project is then placed in service.
14 Upon placing the project the work order in service it
15 has transitioned those charges to General Ledger 106.

16 At that time that enters into the continuing
17 property record. The dollars are entered. There is
18 an accounting quantity as we've already discussed. At
19 such time during the process from GIS Small World we
20 will receive the inventory as we've discussed also
21 upon via poles conductor as an example used in the
22 field on that project. And that will become the bases
23 for 101.

24 Q. Okay. Now --

1 forward that specifically show the costs of the
2 installation of poles for a project as opposed to
3 other activities?

4 MS. SPILLER: Again, note my objection.
5 Go ahead.

6 A. We do not account for charges as they come
7 in by utility account.

8 Q. So who determines how to allocate between
9 the different accounts in a project with respect to
10 the costs that relate to different accounts?

11 A. The quantity of poles received we use a
12 standard -- a standard price of what a pole -- or a
13 standard factor of what a pole would be. We take the
14 quantity of the property units received times the
15 standards in the Power Plant system, and that creates
16 the allocation bases.

17 Q. Okay. And this is done in the
18 classification process?

19 A. That is cor- -- in the unitization process,
20 yes.

21 Q. Okay. So there is a standard factor based
22 on the height of a pole or the length of a pole?

23 A. Yes.

24 Q. And are these standard factors reduced to

1 writing?

2 A. Excuse me?

3 Q. Are they reduced to writing?

4 A. Could you define writing?

5 Q. Yes. The standard factor that we're talking
6 about -- let's just be sure we -- I understand what
7 you mean -- there is some estimation process that Duke
8 has for what it cost to install a certain size and
9 type of pole --

10 A. Correct.

11 Q. -- right? Is that the JET system?

12 A. That is -- the JET system is a job
13 estimating tool.

14 Q. And is that what we're talking about here?

15 A. No, it is not.

16 Q. So this is a different tool?

17 A. This is the Power Plant system.

18 Q. Okay. And so if you were to inquire of the
19 Power Plant system, you could tell me what the
20 standard factor was for different size poles that are
21 used at a particular time by the Power Plant system?

22 A. Correct.

23 Q. And you could provide that for different
24 years?

Please note that page 47, line 6 through page 115, line 15 of the January 30, 2009 Deposition of James Dean relates to Deposition Exhibits designated by Duke Energy Ohio as "Confidential Proprietary Trade Secret" and was submitted under seal on February 23, 2009 in Case No. 08-709-EL-AIR, et al

**Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al**

**Attachment 8
Excerpts of Deposition of James Dean of December 15, 2008**

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.)

DEPOSITION OF: JAMES DEAN

December 15, 2008

9:00 a.m.

REPORTED BY:

Renee Rogers, Registered Professional Reporter

1 and their loadings that go in to the amount numbers
2 there?

3 A No.

4 Q So all of the amount items are amounts
5 that should be included and are properly included in
6 Account 364?

7 A The amounts in 364, there has been
8 discovery made on the 2007 dollar amount that an
9 adjustment is in progress to reduce that.

10 Q So the amount for 2007, the \$52
11 million amount, does include items other than
12 pole-related items; is that right?

13 A It is an overestimation of what the
14 account poles should have contained.

15 Q And when was that determined?

16 A That was determined over this weekend,
17 Friday, Saturday. There was some definition of that
18 as I did further review of the additions. There was
19 also some discovery that was made in June, July of
20 2008.

21 Q What discovery was made in June, July
22 2008?

23 A That certain projects that had been
24 initiated had had an estimated account put on them

1 that showed poles greater than what the estimate
2 should have been for the poles.

3 This is not actual. When projects are
4 taken out, we put an estimated account, utility
5 account distribution on them. At that time the
6 utility account estimated allocation had put too
7 much to the pole account.

8 Q How does that estimate make its way in
9 to the actual dollars of investment that are
10 included within Account 364?

11 A FERC -- as you work your system
12 through, FERC accounting has three primary general
13 ledgers. 107 is a general ledger used for
14 construction of the project.

15 Once the project goes in to service,
16 we move the dollars of that project to be on the
17 CPR, the continuing property record. It is done by
18 an estimate on that project.

19 That is 106 accounting, completed
20 construction not yet fully classified. Then when we
21 do unitize, close the project, we move it to the
22 101. That's when we do a field inventory of all the
23 poles.

24 What was discovered is in the

1 accounting for the 106 that the estimate on the
2 projects had an overestimated amount. The estimate
3 was high for what poles were.

4 Q Is that because there were other items
5 that were included with the pole investment?

6 A The project -- the project normally
7 could install poles, conductor, other units of
8 property, which should be accounted for in other
9 FERC utility accounts.

10 Q So the installation of conductors, for
11 example, would be included in a different account
12 than 364; is that right?

13 A That is correct.

14 Q And the installation of capacitors,
15 would that also be included in a different account?

16 A Other than 364, correct.

17 Q What's a capacitor, by the way?

18 A Field-wise I would -- I would be leery
19 giving you my definition. I'm an accountant.

20 Q Okay. But it belongs in a different
21 account than Account 364?

22 A In reading FERC, that would be
23 correct.

24 Q Does Account 364 include street

1 A Correct.

2 Q And do you know in what year these --
3 what years these transfers were made?

4 MS. SPILLER: Objection. I think he's
5 already answered that without the benefit
6 of those documents he can't answer this
7 question. I think the question has
8 already been asked and answered by the
9 witness.

10 MR. GILLESPIE: Well, you certainly
11 answered it.

12 Q Is there any other compilation of the
13 number of poles other than the number that is
14 included in the continuing property records?

15 A Again, speaking from the property
16 records, there is a field count of how many poles
17 there are, yes.

18 Q Right. But the field -- the field
19 count would be the number in the continuing property
20 records plus those additions and retirements that
21 have not yet made it in to the continuing property
22 records?

23 A Correct.

24 Q How long does that process generally

1 take?

2 A It depends on what the size of the
3 project is. Potentially three to six months after
4 in servicing on specific projects.

5 Q Okay. So let's take a specific
6 project where it might take -- you said six to ten
7 months? You said three to six months? I forgot.

8 A Three to six months after in service.

9 Q Okay. So after the project is
10 completed it might take that long?

11 A Correct.

12 Q Would the amounts included in Account
13 364 include that project prior to the pole count
14 being updated?

15 A Yes, it would. Dollar-wise, that is
16 correct.

17 Q So the dollars would be there, but the
18 number of poles might lag by three to six months?

19 A That is correct.

20 Q Now, would the dollars be there, put
21 in to the account before the project is even
22 completed?

23 A The term "completed" -- let me change
24 the term "completed" to the term "in service." The

1 term "in service" is when the equipment becomes used
2 and useful. The pole account, 364, will increase by
3 dollars once we're notified of the project going in
4 service.

5 Q But the dollars aren't placed in
6 Account 364 until the project is placed in service?

7 A That is correct.

8 Q Okay. Are you aware of the number of
9 poles that were used in the rate formula that has
10 been applied by Duke in this case?

11 A I am not.

12 Q You're not aware?

13 A No, I am not aware.

14 Q Do you know whether any surveys or
15 inspections have been used to determine the number
16 of poles in Account 364?

17 A I do not know of any.

18 Q Does Duke have maps of poles in their
19 locations?

20 A Duke has a geographical database which
21 is a field record. I am not an expert on all the
22 field records, but I'm aware there is a field
23 record.

24 Q And those are GIS records for the

1 poles?

2 A To the best of my knowledge, yes, not
3 being an expert on them.

4 Q Do you know when and how the GIS
5 coordinates for the Duke poles were determined?

6 A I do not.

7 Q Do you know whether as of -- well, let
8 me strike that.

9 The number of poles that has been used
10 by Duke in its formula is 248,901. Do you know what
11 that number is based on?

12 A I am not familiar with that number,
13 no.

14 Q So you don't know what it's based on?
15 Do you know how that number relates to the quantity
16 that is shown in Exhibit 4 for 2007 of 234,942?

17 A Not being aware of the 248, I wouldn't
18 be able to qualify an answer to that.

19 Q Okay. Do you know whether there are
20 any adjustments being made to any of the other
21 amounts shown in the columns on POD-01-004 in
22 Exhibit 4?

23 A Specific by year?

24 Q Yes.

1 discussion with Mr. Council about this proceeding
2 here?

3 A It was discussing sitting in for him
4 to cover this, and what some of the POD's were that
5 we've covered here.

6 Q You talked about which POD's had been
7 supplied to us, or you talked specifically about the
8 various documents produced?

9 A It was covering the POD's that we had
10 jointly worked up, knowing that those were in the
11 document.

12 Q What do you mean you had jointly
13 worked up?

14 A Some of the POD's I had worked with
15 Carl to help submit some of the answers to; some of
16 them, I had not.

17 Q And by POD what do you mean?

18 A Production of document.

19 Q So he was involved in the document
20 production, Mr. Council?

21 A I just started getting in to this.
22 I'm not quite sure who all was actually involved in
23 it. I know Carl is my director. Yes.

24 Q So you report to Mr. Council?

Please note that page 52, line 11 through page 98, line 9 of the December 15, 2008 Deposition of James Dean related to Exhibits which were designated by Duke Energy Ohio as "Confidential Proprietary Trade Secret" and was submitted under seal on February 23, 2009 in Case No. 08-709-EL-AIR, et al

Attachment 9
Excerpts of Duke's Responses to OCTA
Discovery Requests and Staff Data Requests

**Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Third Set Interrogatories
Date Received: December 20, 2008**

OCTA-INT-03-031

REQUEST:

Number of Distribution Poles in Account 364

The number of distribution poles in Account 364 is another key driver of the pole attachment rate as it is the denominator for the average investment per pole. See the formula in Attachment DLS-2. In the formula, Duke uses the number 248,901 as the number of poles in Account 364. In the summary of the continuing property records initially provided to OCTA, as a substitute for the continuing property records requested by OCTA in POD 01-004, Duke listed the total number of poles in Account 364 as 234,942. But in his deposition Mr. Dean said that the summary was not correct and is being revised. Please respond fully to the following interrogatories addressing this issue.

How many distribution poles did Duke have in service as of December 31, 2007, that are not recorded on pages 1-63 of the CPR Ledger? Identify all back-up documentation for your answer.

RESPONSE:

The Continuing Property Records does not have a count of poles in service that are recorded on pages 1-63 of the CPR ledger. Ledger entries made for in service accounting recorded in GL 106 do not reflect a number of poles in service.

PERSON RESPONSIBLE: James Dean

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Third Set Interrogatories
Date Received: December 20, 2008

OCTA-INT-03-032

REQUEST:

Number of Distribution Poles in Account 364

The number of distribution poles in Account 364 is another key driver of the pole attachment rate as it is the denominator for the average investment per pole. See the formula in Attachment DLS-2. In the formula, Duke uses the number 248,901 as the number of poles in Account 364. In the summary of the continuing property records initially provided to OCTA, as a substitute for the continuing property records requested by OCTA in POD 01-004, Duke listed the total number of poles in Account 364 as 234,942. But in his deposition Mr. Dean said that the summary was not correct and is being revised. Please respond fully to the following interrogatories addressing this issue.

Reference pages 87 and 88 of Duke's CPR Ledger: For each of the poles on these pages that is listed as replacing a distribution pole, please indicate whether the poles that were added are recorded on some other page(s) of the CPR Ledger. If so, identify the page(s) and identify the back-up documentation demonstrating that they were so recorded.

RESPONSE:

Objection. This interrogatory subjects Duke Energy Ohio to duplicative discovery requests. This information should have been solicited from James Dean in his prior deposition. Without waiving said objection, the pages selected are for GL 106, Completed Construction not Classified, and only will appear on these pages. The 'accounting' quantity associated to these entries does not represent a quantity of poles added.

PERSON RESPONSIBLE: James Dean

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
First Set Production of Documents
Date Received: October 24, 2008

OCTA-POD-01-004

REQUEST:

Please provide a copy of all documents that relate to the number of Distribution Poles owned by Duke by year since 2000. (Please include all continuing property records of Distribution Poles by year, all summaries and counts of poles, and all summaries and counts of poles added, retired or subtracted.)

RESPONSE:

Objection. This document request is overly broad and unduly burdensome given the time period pursuant to which it is to be answered and its reference to "all" documents relating to pole ownership. Furthermore, this document request seeks to elicit information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving said objection, and with reference to a more limited and thus reasonable time frame, see Attachment OCTA-POD-01-004.

PERSON RESPONSIBLE: N/A

Summary of CPR - adds and retirees for account 364 for the years 2000 through 2007

Year	Additions		Retirements		Balance	
	Quantity	Amount	Quantity	Amount	Quantity	Amount
2007	1,234	\$52,358,212.53	(2,704)	\$ (2,158,762.76)	234,942	\$ 262,635,549.12
2006	1,148	\$10,104,163.59	(1,987)	\$ (1,368,081.67)	236,412	\$ 212,436,099.35
2005	1,556	\$17,792,895.45	(2,820)	\$ (2,428,589.12)	237,251	\$ 203,700,017.43
2004	1,283	\$8,827,376.00	(2,504)	\$ (1,814,825.48)	238,515	\$ 188,335,711.10
2003	836	\$8,816,259.07	(2,160)	\$ (1,564,816.01)	239,736	\$ 181,323,160.58
2002	1,690	\$6,075,015.45	(700)	\$ (473,275.31)	241,080	\$ 174,071,716.52
2001	4,990	\$2,861,818.62	(2,277)	\$ (1,583,114.44)	240,070	\$ 168,469,976.38
2000	1,629	\$13,298,927.16	(335)	\$ (252,072.20)	237,357	\$ 167,191,272.20

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Third Set Interrogatories
Date Received: December 20, 2008

OCTA-INT-03-022

REQUEST:

Investment in Account 364

The average investment in the distribution poles in Account 364 is the fundamental element in the pole attachment formula used by the PUCO. One of the key drivers of that average investment is the embedded investment in Account 364. At his deposition on December 15, Mr. Dean indicated that the summary of Duke's continuing property records for Account 364, provided by Duke to the OCTA in response to OCTA request for production of Duke's continuing property records and contained in POD No. 01-004, was incorrect and is being revised by Duke. Also at his deposition, Mr. Dean indicated that Duke is undertaking a review of the assets added to Account 364 for 2007. Please respond fully to the following interrogatories addressing these issues.

Please provide an updated and revised summary of Duke's continuing property records for Account 364 that was provided by Duke in response to POD 01-004. In addition to years 2000-2007, please have the summary cover the entire period 1993-2007.

RESPONSE:

Objection. The unreasonable scope of this interrogatory renders it overly broad and not likely to lead to the discovery of admissible evidence. This interrogatory, as written, further mistakenly implies that the summary, in its entirety, is incorrect. To the extent this interrogatory misinterprets the prior deposition testimony of Mr. Dean, it is objectionable. Without waiving said objection and to the extent discoverable, Attachment OCTA-INT-03-022 contains the revised data for the response to POD 01-004 with the addition of the data requested in OCTA-POD-02-014.

PERSON RESPONSIBLE: James Dean



Summary of CPR - adds and retires for account 364 for the years 1993 through 2007

Year	Additions		Retirements		Transfers		Transfers		Balance	
	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
2007	1,234	\$ 52,358,212.53	(2,704)	\$ (2,158,782.76)					235,228	\$ 284,535,121.07
2006	1,148	\$ 10,104,163.59	(1,987)	\$ (1,368,081.67)					236,698	\$ 234,335,671.30
2005	1,556	\$ 17,792,895.45	(2,820)	\$ (2,428,589.12)	(7)	\$ (13,143.80)			237,537	\$ 225,589,589.38
2004	1,283	\$ 8,828,190.00	(2,504)	\$ (1,814,825.48)	(2)	\$ (5,844.06)			238,808	\$ 210,248,426.85
2003	836	\$ 9,027,650.03	(2,160)	\$ (1,564,815.01)	3495	\$ 3,219,162.02			240,031	\$ 203,240,706.39
2002	1,690	\$ 6,075,015.45	(700)	\$ (473,275.31)	(30)	\$ (91,280.93)			237,880	\$ 192,558,709.35
2001	4,990	\$ 2,861,818.62	(2,277)	\$ (1,583,114.44)	7	\$ (15,440.97)			236,900	\$ 187,048,250.14
2000	1,829	\$ 13,298,658.00	(335)	\$ (252,072.20)	1	\$ 932.34			234,180	\$ 185,784,986.87
1999	5,489	\$ 9,477,146.00	(2,394)	\$ (1,454,693.14)	N/A	\$ (70,757.84)			232,885	\$ 172,737,468.73
1998	1,551	\$ 8,205,807.00	(2,607)	\$ (1,433,571.98)	N/A	\$ 8,551.81			229,790	\$ 164,785,773.71
1997	2,358	\$ 8,683,276.00	(1,589)	\$ (658,032.65)	N/A	\$ (38,814.39)			230,846	\$ 158,004,988.89
1996	2,337	\$ 7,539,958.00	(1,939)	\$ (917,331.36)	N/A	\$ 25,462.12			230,077	\$ 150,018,557.86
1995	4,499	\$ 9,192,877.00	(3,198)	\$ (1,484,715.40)	N/A	\$ (41,352.26)			229,679	\$ 143,370,469.10
1994	5,688	\$ 7,107,632.00	(4,000)	\$ (1,449,775.90)	N/A	\$ (131,036.47)			228,378	\$ 135,703,659.76
1993	3,800	\$ 10,972,737.00	(3,047)	\$ (1,104,422.45)	N/A	\$ 193.73			226,690	\$ 130,176,840.13

Note:
 2003 The additions for 2003 contain a correcting adjustment for the utilization for 24 projects totaling \$212,065.96. This was required to correct for a processing error on the projects. The additions for 2003 contains a FERC adjustment for (675.00).
 2004 The additions for 2004 contain an adjustment reported in FERC for \$814.
 2000 The additions for 2000 contain an adjustment reported in FERC additions for \$269.39.
 N/A Not Available

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
PUCO Fiftieth Set Staff Data Requests
Date Received: December 12, 2008

STAFF-DR-50-001

REQUEST:

Please provide the Staff with the following data:

Please provide the corrected balances to Accounts 364 and other affected accounts, as reported in the company's 2007 FERC Form 1. Provide an explanation as to the error in distributing dollars to the proper accounts.

RESPONSE:

Below are the revised accounts balances as of 12-31-07 used in the calculation of the pole attachment rate:

	Account 364	Account 365	Account 369
Original Cost	\$284,535,121	\$283,463,254	\$49,635,936
Adjustment	<u>-65,638,734</u>	<u>+11,756,905</u>	<u>+2,750,129</u>
Adjusted Original Cost	218,896,387	295,220,159	52,386,065
Accumulated Depr	100,036,816	89,824,712	34,674,167
Adjustment	<u>-1,774,471</u>	<u>+409,254</u>	<u>-14,116</u>
Adjusted Accum Depr	98,262,345	90,233,963	34,660,051
Adjusted OCD	\$120,634,042	\$204,986,196	\$17,726,014

The corrections go back to 2001, although the 2001 – 2004 corrections are minor. There were two errors that caused these problems. First, in April 2005, the Company implemented a new accounting system. A number of blanket work orders were established at that time for Distribution projects and they were coded to go to account 364. When these were classified to account 106, they were not allocated to several distribution accounts as they should have been, but were allocated only to account 364. Second, amounts on blanket work orders must be transferred to a specific work order to establish a vintage year for the additions. In December 2006, several specific work orders were created to receive amounts from the Distribution blanket work orders that were in service (account 106.) The new specific work orders were erroneously coded in CWIP (account 107) rather than in service. This was discovered and corrected in January 2007, but as a result, the additions became 2007 additions and 2006 additions were understated.

PERSON RESPONSIBLE: Donald Storck

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
PUCO Fiftieth Set Staff Data Requests
Date Received: December 12, 2008

STAFF-DR-50-001 Supplemental

REQUEST:

Please provide the Staff with the following data:

Please provide the corrected balances to Accounts 364 and other affected accounts, as reported in the company's 2007 FERC Form 1. Provide an explanation as to the error in distributing dollars to the proper accounts.

RESPONSE:

Below are the revised accounts balances as of 12-31-07 used in the calculation of the pole attachment rate:

	Account 364	Account 365	Account 369
Original Cost	\$284,535,121	\$283,463,254	\$49,635,936
Adjustment	- 61,410,077	+ 9,434,658	+ 2,750,129
Adjusted Original Cost	223,125,044	292,897,912	52,386,065
Accumulated Depreciation	100,036,816	89,824,712	34,674,167
Adjustment	- 1,942,323	+ 383,353	+ 5,423
Adjusted Accumulated Depreciation	98,094,493	90,208,065	34,679,590
Adjusted Original Cost Depreciated	\$125,030,551	\$202,689,847	\$17,706,475

The corrections go back to 2001, although the 2001 – 2004 corrections are minor. There were two errors that caused these problems. First, in April 2005, the Company implemented a new accounting system. A number of blanket work orders were established at that time for Distribution projects and they were coded to go to account 364. When these were classified to account 106, they were not allocated to several distribution accounts as they should have been, but were allocated only to account 364. Second, amounts on blanket work orders must be transferred to a specific work order to establish a vintage year for the additions. In December 2006, several specific work orders were created to receive amounts from the Distribution blanket work orders that were in service (account 106.) The new specific work orders were erroneously coded in CWIP (account 107) rather than in service. This was discovered and corrected in January 2007, but as a result, the additions became 2007 additions and 2006 additions were understated.

PERSON RESPONSIBLE: Donald Storek

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Second Set Interrogatories
Date Received: December 4, 2008

OCTA-INT-02-015

REQUEST:

Provide a summary of CPR – adds and retires for account 364 for the years 1993 through 1999 in the same form as the summary provided by Duke as Attach. OCTA-POD-01-004.

RESPONSE:

See Attachment OCTA-INT-02-015.

PERSON RESPONSIBLE: James E. Dean

Summary of CPR - adds and retires for account 364 for the years 1993 through 1999

Year	Additions		Retirements		Transfers		Balance	
	Quantity	Amount	Quantity	Amount	Amount	Quantity	Amount	Amount
1999	5,489	\$ 17,008,998.27	(2,394)	\$ (1,454,693.14)	\$ (70,757.84)	234,942	\$ 167,558,951.45	
1998	1,551	\$ 3,165,778.55	(2,607)	\$ (1,433,571.98)	\$ 8,551.81	231,847	\$ 152,175,404.16	
1997	2,358	\$ 5,908,982.00	(1,589)	\$ (658,032.65)	\$ (38,614.33)	232,903	\$ 150,434,847.78	
1996	2,337	\$ 5,217,151.14	(1,999)	\$ (917,331.36)	\$ 25,462.12	232,134	\$ 145,224,532.76	
1995	4,499	\$ 10,188,541.77	(3,198)	\$ (1,484,715.40)	\$ (41,352.26)	231,736	\$ 140,899,250.86	
1994	5,688	\$ 11,721,476.89	(4,000)	\$ (1,449,775.90)	\$ (131,036.47)	230,435	\$ 132,236,778.75	
1993	3,800	\$ 7,283,355.55	(3,047)	\$ (1,104,422.45)	\$ 193.73	228,747	\$ 122,098,112.23	

Note: The implementation of the new capital accounting system, Power Plant, occurred 1st qtr 2000. Data was loaded based on 12/1/1999. If CPR was loaded for the first time by FERC utility account for General Ledger 106, Completed Construction not Classified, during the conversion of data from 12/31/1999 to 1/1/2000. The amount loaded was \$6,078,512.05 and a miscellaneous adjustme

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Third Set Interrogatories
Date Received: December 20, 2008

OCTA-INT-03-023

REQUEST:

Investment in Account 364

The average investment in the distribution poles in Account 364 is the fundamental element in the pole attachment formula used by the PUCO. One of the key drivers of that average investment is the embedded investment in Account 364. At his deposition on December 15, Mr. Dean indicated that the summary of Duke's continuing property records for Account 364, provided by Duke to the OCTA in response to OCTA request for production of Duke's continuing property records and contained in POD No. 01-004, was incorrect and is being revised by Duke. Also at his deposition, Mr. Dean indicated that Duke is undertaking a review of the assets added to Account 364 for 2007. Please respond fully to the following interrogatories addressing these issues.

Please identify by work order number and page of the CPR Ledger Detailed Asset Report (produced by Duke to OCTA on December 11, 2008 and marked for identification at Mr. Dean's deposition as OCTA Ex. 14) (hereinafter "CPR Ledger") all entries to the Asset Report which have been reviewed by Duke in connection with this case, explain what adjustments, if any, Duke proposes to make to Account 364 as a result of that review, and identify all documents related to each such work order reviewed.

RESPONSE:

Objection. This interrogatory misstates the prior deposition testimony of Mr. Dean by inferring that the summary, in its entirety, is incorrect. Without waiving said objection and to the extent discoverable, Duke has reviewed the Continuing Property Record and has decreased the Continuing Property Record balance for Account 364 by \$61,410,077. The review focused on the GL 106, Completed Construction not Classified work order balance and has provided a 96% review of the GL 106 balance as of the November 2008 balance.

Provided in Attachment OCTA-INT-03-023 is a list of all work orders reviewed and the adjustment made to Account 364 by work order as of the 2007 CPR. These selected work orders were reviewed by the power delivery group and new allocation estimates were provided if necessary.

PERSON RESPONSIBLE: James Dean

List of Work Orders Reviewed
for Account 3640 GL 106

WORK ORDER	Adjustment Amount
20009	
20011	
20016	
20524	
20842	
24949	
25212	
25472	
27033	
32602	
32679	
A1307	-63,191
A1538	-10,375
A1539	-35,342
A3086	-143,117
A3251	-63,683
A3894	
A4208	-23,270
A4310	-66,350
A4685	
A6627	-13,486
A6866	
A6977	
A7881	
A8537	-57,757
A8753	
A8889	
A9119	
A9617	
A9895	
A9896	
B1184	
B1396	
B1970	
B2016	
B2263	
B2449	
B2607	
B2753	10,743
B2918	-91,446
B2919	-66,446
B2946	11,396
B3067	
B3132	
B3582	-45,726
B3784	
B4461	-312,485
B4950	

B6248	
B6408	
B7683	
B7935	
B8376	
B8714	
B9124	
C2258	11,577
C2547	
C4096	
C4916	
C4975	
C5064	
C5230	
C5343	
C6975	
C7344	
C7421	
C7513	
C7637	
C7904	
C8637	
C8732	
C8907	
C8919	
C8985	-334,946
C8986	-1,447,618
C9011	-374,292
C9012	-140,952
C9014	-70,925
C9016	-114,662
C9017	-5,177,700
C9018	-3,973,886
C9019	-6,275,252
C9020	-303,906
C9022	-287,379
C9023	-462,923
C9026	-609,673
C9027	-498,122
C9028	-470,762
C9029	-894,372
C9032	-463,447
C9055	
C9305	
C9800	
D1227	
D1288	
D1489	
D1635	
D2302	
D2475	
D2707	

D2728	
ZA001	-160,489
ZA002	-11,768
ZA004	-24,778
ZG011	769,586
ZH001	107,275
ZH002	-113,802
ZH004	70,456
ZK011	-2,293,441
ZL001	-1,019,835
ZL002	-670,584
ZL004	-1,058,829
ZN001	-2,017,939
ZN002	-9,001,486
ZN004	-14,532,217
ZR001	-2,538,843
ZR002	-3,090,228
ZR004	-112,838
ZS011	-676,136
ZU001	-1,602,937
ZU002	-1,303,033
ZU004	931,454
Total Adjustment	-61,410,077

DUKE ENERGY OHIO, INC.
CASE NO. 08-708-EL-AIR
GROSS ADDITIONS, RETIREMENTS & TRANSFERS
From October 1, 2004 to March 31, 2008

Distribution Plan

WFB-2.3b
Witness Responsible:
C. J. Council
01/23/09

Data: X Actual ___ Estimated
Type of Filing: X Original ___ Updated ___ Revised
Work Papers Reference No(s):

Company Acct. No.	Beginning Balance	Additions	Retirements	Amount	Transfers/Reclassifications Explanation of Transfer	Other Accts. Involved	Ending Balance
3622	72,307,844.75	1,715,331.52	73,006.95	0.00			73,949,269.72
		4,797,822.93	554,554.34	(32,116.35)			77,760,481.99
		4,866,084.06	342,568.48	126,318.35			82,999,275.88
		7,243,073.48	489,150.54	4,218.88			89,177,418.36
		849,484.07	82,984.65	0.00			89,943,897.90
Total	18,461,758.03	1,823,122.57	97,418.58				89,943,897.90
3635	50,884.13	89,571.31	0.00	0.00			140,255.44
		655,022.44	0.00	0.00			795,277.88
		989,188.36	0.00	0.00			1,788,466.24
		802,433.52	0.00	0.00			2,696,869.76
		607,054.04	0.00	0.00			3,192,963.80
Total	3,142,279.67	0.00	0.00	0.00			3,192,963.80
3640	208,672,765.67	(569,627.00)	678,439.39	(2,149.16)			208,329,983.85
		807,313.73	2,428,689.12	(13,143.80)			210,037,125.56
		3,169,874.46	1,368,081.67	0.00			216,985,739.30
		8,316,686.66	2,168,782.76	0.00			223,125,044.07
		8,298,067.53	387,937.21	1,144.65			225,327,637.51
		2,588,386.00	6,931,810.16	(14,148.31)			225,327,637.51
Total	22,600,810.30	0.00	10,259,864.60	(10,692.33)			267,029,901.27
3650	263,656,514.82	327,794.00	882,369.74	715.27			272,894,444.25
		3,727,496.92	2,926,295.94	(10,148.05)			281,793,138.08
		8,600,974.97	2,046,871.38	(1,261.55)			282,867,811.58
		10,688,826.76	4,000,303.84	0.00			294,779,890.14
		15,166,077.34	643,033.70	0.00			304,779,890.14
		2,525,012.26	10,259,864.60	(10,692.33)			304,779,890.14
Total	41,433,132.25	0.00	10,259,864.60	(10,692.33)			304,779,890.14

DUKE ENERGY OHIO, INC.
CASE NO. 08-709-EL-AIR
GROSS ADDITIONS, RETIREMENTS & TRANSFERS
From October 1, 2004 to March 31, 2008

Distribution Plant

WPS-2.3c
Witness Responsible:
C. J. Council
01/23/09

Data: X Actual ___ Estimated
Type of Filing: X Original ___ Updated ___ Revised
Work Papers Reference No(s):

Company Acct. No.	Beginning Balance	Additions	Retirements	Amount	Transfers/Reclassifications		Ending Balance
					Explanation of Transfer	Other Accts. Involved	
3660	90,417,298.24	1,555,063.48	9,342.96	0.00			91,983,048.77
		1,840,666.41	60,490.53	(914.47)			93,744,730.18
		1,204,973.76	35,307.89	(441.68)			94,913,944.69
		2,389,186.09	85,871.94	2,329.43			97,189,588.21
		428,860.45	44,782.50	0.00			97,573,686.16
Total	7,390,800.15	235,788.51	1,373.28				97,573,686.16
3670	199,705,509.98	89,769.00	364,719.12	(53,288.65)			201,129,606.29
		2,732,390.28	1,250,554.90	(54,354.67)			221,496,557.24
		21,670,860.52	511,698.23	4,317.19			247,180,771.13
		26,202,794.93	1,571,060.41	0.00			266,661,711.46
		21,042,006.74	186,332.06	0.00			271,796,727.54
		5,271,348.14	3,834,488.72	(63,327.33)			271,796,727.54
Total	77,009,043.61	3,834,488.72	(63,327.33)				271,796,727.54
3680	286,608,192.77	31,338.00	3,197,820.22	(1,728,032.88)			288,094,524.12
		4,280,945.65	2,803,886.12	(1,536,298.61)			291,868,351.33
		10,134,083.04	3,413,630.71	(447,528.65)			297,092,911.15
		9,068,020.38	4,032,308.70	(76,078.82)			305,676,893.84
		13,682,371.21	305,512.66	0.00			310,624,759.26
		4,253,376.06	13,753,270.41	(3,788,300.56)			310,624,759.26
Total	41,558,137.46	13,753,270.41	(3,788,300.56)				310,624,759.26
3682	4,716,208.36	(72,502.18)	21,990.00	0.00			4,621,696.18
		92,650.09	0.00	0.00			4,714,456.27
		0.00	0.00	0.00			4,714,456.27
		0.00	0.00	(45,262.82)			4,669,193.45
		0.00	0.00	0.00			4,669,193.45
Total	20,147.91	21,990.00	(46,262.82)				4,669,193.45

DUKE ENERGY OHIO, INC.
CASE NO. 08-709-EL-AIR
ACCUMULATED DEPRECIATION AND AMORTIZATION
AS OF MARCH 31, 2008

DISTRIBUTION PLANT

DATA: "X" ACTUAL ESTIMATED
TYPE OF FILING: "X" ORIGINAL UPDATED REVISED
WORK PAPER REFERENCE NO(S):

SCHEDULE B-3
PAGE 2 OF 4
WITNESS RESPONSIBLE:
C. J. COUNCIL

LINE NO.	F.E.R.C. ACCT. NO.	COMPANY ACCT. NO.	ACCOUNT TITLE	TOTAL COMPANY PLANT INVESTMENT	TOTAL COMPANY	ADJUSTMENTS	ADJUSTED TOTAL COMPANY	ALLOCATION %	ALLOCATED JURISDICTION
				\$	\$		\$		\$
1	360		Land and Land Rights	7,357,843	0	0	0	100.000%	0
2	360		Rights of Way	26,615,889	1,091,710	0	1,091,710	100.000%	1,091,710
3	361		Structures and Improvements	6,549,824	3,573,903	0	3,573,903	100.000%	3,573,903
4	362		Station Equipment	141,741,439	57,816,648	0	57,816,648	100.000%	57,816,648
5	362		Major Equipment	66,943,888	30,247,249	0	30,247,249	100.000%	30,247,249
6	363		Dist Station Equip Elec	3,192,964	281,694	0	281,694	100.000%	281,694
7	364		Poles, Towers & Fittings	225,327,638	99,069,463	0	99,069,463	100.000%	99,069,463
8	365		Overhead Conductors and Devices	294,779,890	91,548,320	0	91,548,320	100.000%	91,548,320
9	366		Underground Conduit	97,573,665	29,403,258	0	29,403,258	100.000%	29,403,258
10	367		Underground Conductors and Devices	271,796,728	60,068,806	0	60,068,806	100.000%	60,068,806
11	368		Line Transformers	319,624,759	127,171,065	0	127,171,065	100.000%	127,171,065
12	368		Customer Transformer Installations	4,669,193	2,124,839	0	2,124,839	100.000%	2,124,839
13	368		Services - Underground	8,324,191	1,698,599	0	1,698,599	100.000%	1,698,599
14	369		Services - Overhead	44,445,248	33,257,476	0	33,257,476	100.000%	33,257,476
15	370		Meters	54,161,208	19,092,951	0	19,092,951	100.000%	19,092,951
16	370		Leased Meters	23,627,667	715,997	0	715,997	100.000%	715,997
17	371		Installations on Customers' Premises	32,968	0	0	0	100.000%	0
18	372		Leased Property on Customers' Premises	102,503	(92,485)	0	(92,485)	100.000%	(92,485)
19	373		Street Lighting - Overhead	7,639,562	9,042,149	0	9,042,149	100.000%	9,042,149
20	373		Street Lighting - Boulevard	19,092,234	4,773,882	0	4,773,882	100.000%	4,773,882
21	373		Light Security OL POL Flood	6,917,165	4,222,101	0	4,222,101	100.000%	4,222,101
22	108		Retirement Work in Progress		(16,680,072)		(16,680,072)	100.000%	(16,680,072)
23			Total Electric Distribution Plant	1,644,616,547	559,206,552	0	559,206,552		559,206,553

DUKE ENERGY OHIO, INC.
 CASE NO. 08-709-EL-AIR
 Depreciation Reserve Accruals, Retirements and Transfers
 From October 1, 2004 to March 31, 2008

Distribution Plant

Date: X Actual ___ Estimated
 Type of Filing: X Original ___ Updated ___ Revised
 Work Papers Reference No(s):

WPB-3.3b
 Witness Responsible:
 C. J. Council
 01/23/08

Company Acct. No.	Beginning Balance	Accrual	Salvage	Retirements	Cost of Removal	Amount	Transfers/Reclassifications		Ending Balance
							Explanation of Transfer	Other Accts Involved	
3622	26,967,162.26								
		379,605.80	0.00	73,806.58	42,083.11	0.00			26,930,778.46
		1,684,061.77	0.00	954,584.34	132,306.54	173,397.60			27,600,346.37
		1,325,883.72	0.00	342,598.46	65,102.41	134,472.98			28,853,104.78
		1,844,427.82	0.00	469,150.54	89,093.91	(23,453.96)			29,315,634.29
		427,698.89	0.00	82,984.65	13,208.84	0.00			30,247,249.59
Total		5,561,588.10	0.00	1,923,122.57	341,794.81	283,416.62			30,247,249.59
3635	0.00								
		315.04	0.00	0.00	0.00	0.00			315.04
		6,438.59	0.00	0.00	0.00	0.00			6,753.63
		77,066.66	0.00	0.00	0.00	0.00			83,820.28
		145,714.82	0.00	0.00	0.00	0.00			228,535.10
		52,159.06	0.00	0.00	0.00	0.00			281,694.16
Total		281,694.16	0.00	0.00	0.00	0.00			281,694.16
3640	87,385,759.73								
		(18,639.00)	0.00	578,439.39	18,373.87	(245.03)			88,157,459.57
		1,987,387.13	954.18	2,428,589.12	161,320.28	(187.80)			91,149,939.41
		5,601,822.85	24,573.00	1,368,081.57	26,602.96	0.00			93,143,320.50
		5,363,522.52	0.00	2,156,762.76	224,683.93	0.00			96,094,482.50
		5,334,618.98	0.00	367,937.21	3,030.18	62.20			98,069,483.34
		1,375,878.03	0.00	6,431,810.15	454,011.22	(380.63)			98,069,483.34
Total		19,044,388.42	25,507.19	6,431,810.15	454,011.22	(380.63)			98,069,483.34
3650	79,366,671.32								
		12,842.00	0.00	682,389.74	196,674.62	8.28			80,051,285.07
		1,488,687.63	0.00	2,826,285.94	779,562.24	(66.04)			82,409,074.46
		6,044,560.40	18,163.21	2,046,871.38	467,036.20	(8.16)			87,429,000.08
		7,519,748.94	16,092.40	4,000,303.84	1,001,442.51	0.00			90,208,085.33
		7,780,811.62	0.00	643,033.70	6,860.02	0.00			91,548,320.81
		1,990,139.20	0.00	10,288,804.60	2,391,564.59	(66.92)			91,548,320.81
Total		24,835,889.99	34,295.61	10,288,804.60	2,391,564.59	(66.92)			91,548,320.81

DUKE ENERGY OHIO, INC.
CASE NO. 04-709-EL-AIR
Depreciation Reserve Accruals, Retirements and Transfers
From October 1, 2004 to March 31, 2008
Distribution Plant

WPB-3.3c
Witness Responsible:
C. J. Council
01/23/09

Data: X Actual ___ Estimated
Type of Filing: X Original ___ Updated ___ Revised
Work Papers Reference No(s):

Company Acct. No.	Beginning Balance	Accrual	Salvage	Retirements	Cost of Removal	Amount	Transfers/Reclassifications		Ending Balance
							Explanation of Transfer	Other Accts Involved	
3660	23,256,448.84	454,381.98	0.00	9,342.95	(277.55)	0.00			23,701,773.22
		1,364,401.43	0.00	60,480.53	(2,918.50)	(40.98)			26,605,671.63
		1,739,207.98	0.00	38,907.89	32.00	(2.81)			27,308,437.01
		1,777,468.65	0.00	88,871.94	3,008.71	53.95			28,988,069.16
		449,972.11	0.00	44,792.50	0.00	0.00			28,403,266.77
Total		6,382,432.25	0.00	235,785.51	(155.34)	10.05			29,403,258.77
3670	47,007,548.18	3,644.00	0.00	364,713.12	10,066.11	(271.02)			47,684,517.19
		1,038,417.28	0.00	1,250,554.80	(113,383.82)	(286.78)			51,060,084.81
		4,473,697.47	29,387.02	511,638.23	(192,845.20)	4.82			55,341,064.11
		8,099,857.71	0.00	1,571,050.41	57,308.41	0.00			59,897,782.77
		5,745,067.46	0.00	136,332.08	2,084.92	0.00			60,058,906.20
		1,337,470.41	0.00	3,834,498.72	(238,769.58)	(582.19)			60,056,808.20
Total		16,618,154.33	29,387.02	3,834,498.72	(238,769.58)	(582.19)			60,056,808.20
3680	108,222,135.55	1,394.00	140,268.77	3,187,920.22	(92,488.73)	(44,936.41)			108,695,360.45
		2,471,893.03	700.64	2,803,998.12	92,906.15	(269,588.89)			115,551,487.64
		10,091,927.71	9,480.60	3,413,630.71	13,906.00	(55,018.45)			120,634,512.07
		8,755,987.59	0.00	4,032,308.70	63,894.00	(22,882.97)			125,284,504.48
		8,575,046.03	0.00	305,512.68	568.46	0.00			127,171,064.22
		2,182,640.65	0.00	13,783,270.41	84,784.88	(382,434.69)			127,171,064.22
Total		32,028,967.61	150,451.01	13,783,270.41	84,784.88	(382,434.69)			127,171,064.22
3682	1,782,102.77	26,351.67	0.00	21,900.00	4,358.40	0.00			1,782,245.04
		104,685.56	0.00	0.00	0.00	0.00			1,886,930.60
		117,861.36	0.00	0.00	0.00	0.00			2,004,791.96
		118,918.46	0.00	0.00	0.00	(26,054.89)			2,085,655.53
		29,162.47	0.00	0.00	0.00	0.00			2,124,838.00
Total		394,969.52	0.00	21,900.00	4,358.40	(26,054.89)			2,124,838.00

Duke Energy Ohio, Inc.
Case No. 08-709-EL-AIR
Ohio Cable Telecommunications Association
Second Set Interrogatories
Date Received: December 4, 2008

OCTA-INT-02-020

REQUEST:

List the number of duct feet of conduit owned by Duke for each year from 2000-2007.

RESPONSE:

Below is the number of duct feet of distribution conduit owned by DE-Ohio for years 2000-2007.

Year	Feet
2007	14,475,063
2006	13,835,398
2005	13,264,139
2004	12,457,945
2003	11,859,779
2002	10,916,229
2001	10,736,167
2000	10,187,292

PERSON RESPONSIBLE: James E. Dean

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 10
Excerpts of Deposition of Steve Adams of January 30, 2009

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc., for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.

DEPOSITION OF: STEVE ADAMS

January 29, 2009

1:00 p.m.

REPORTED BY:

Kristina L. Pedersen

1 end working with the conversion manager from the
2 company that did the conversion.

3 Q. Okay. Are you aware that Duke has
4 determined that as of the end of 2007 it had 248,901
5 distribution poles?

6 A. I was not aware of that.

7 Q. You were not. So you had nothing to do with
8 the determination of that number?

9 A. No.

10 Q. Okay. Do you know how many poles Duke had
11 in its distribution system as of the end of 2007?

12 A. I don't know, no.

13 Q. Okay. Does Duke have documentation of the
14 number of poles that it had in the GIS system as of
15 the year-end 2007?

16 A. Not to my knowledge.

17 Q. Okay. Is the GIS system the Small World
18 system?

19 A. Yes.

20 Q. Okay. Can you tell me how the records of
21 the GIS system are maintained?

22 A. I'm not sure exactly what you mean by that
23 question.

24 Q. Okay. Tell me how the GIS system records

1 the number of poles.

2 A. Well, as jobs are designed in the field
3 whether it's adding pole lines or gas mains or
4 whatever the job is, that work is designed in the GIS
5 system and eventually posted to the GIS system.

6 Q. Okay. Let's talk about a pole line being
7 extended. Tell me how that design system works and
8 how it works that the -- with the GIS system.

9 A. Okay. When a pole line is to be extended,
10 we have a CPC, customer project coordinator, which is
11 basically a field engineer -- will create a work
12 request in Small World, the GIS system, and extend
13 that pole line, adding poles and conductor and
14 cutouts, whatever, and generate a construction print
15 that goes to the field for that pole line extension to
16 be built.

17 The field supervisor will mark any changes
18 that were made during construction. You know, if they
19 had to relocate a specific pole because of an
20 obstruction, they'll make redline changes to the -- to
21 the construction prints. They'll send those
22 construction prints back into the office.

23 An office coordinator will look at the --
24 any redline changes, make those changes in the

1 original work request that was designed in Small
2 World, and close out the job. At which point those
3 poles that were added will be available in the GIS
4 system for others to see.

5 Q. When is it that the system is closed out for
6 that extension so that other people can see it; in
7 other words, it's at that point that the poles are
8 capable of being counted by the GIS system; does --
9 well, let me take a step back.

10 A. Okay.

11 Q. Does the GIS system allow poles to be
12 counted?

13 A. Yes.

14 Q. Okay. Is it a mapping system?

15 A. A GIS system is a mapping system.

16 Q. So it has levels of maps on the system?

17 A. You can create maps from a GIS system.

18 Q. Okay.

19 A. So to that end, yes, it's a mapping system
20 in that you can create maps.

21 Q. Okay. But the GIS system will also -- it's
22 a data system that will allow you to determine how
23 many poles are in it --

24 A. That's correct.

**Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al**

**Attachment 11
Excerpts of Duke's
CPR Ledger Detailed Asset Report for Plant Account 364**

Please note that Duke's CPR Ledger Detailed Asset Report For Plant Account 364 was designated by Duke as "Confidential Proprietary Trade Secret". This document (OCTA Deposition Exhibit 14) was submitted under seal on February 23, 2009 in Case No. 08-709-EL-AIR.

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 12
Work Orders in OCTA Deposition
(OCTA Deposition Exhibits 25-27)

Please note that OCTA Deposition Exhibits 25-27 were designated by Duke as containing "Confidential Proprietary Trade Secrets". OCTA Deposition Exhibits 25-27 were submitted under seal on February 23, 2009 in Case No. 08-709-EL-AIR, et al

Attachment 13
Excerpts of Deposition of Ulrich Angleton of December 15, 2008

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.)

DEPOSITION OF: ULRICH ANGLETON

December 15, 2008

12:35 p.m.

REPORTED BY:

Renee Rogers, Registered Professional Reporter

1 rental rate will be 60 bucks. And if we each own
2 the relative correct percentages, there's no rental
3 rate that passes?

4 A That's the theory on it.

5 Q Now, is it the latter theory that
6 works with AT&T and Embarq, or is there a set
7 percentage?

8 A The way it works with the other
9 telephone companies, if they don't own a percentage
10 of poles, Duke pays them for the six foot of pole
11 that they're on.

12 Where Embarq attaches to Duke poles,
13 they pay for a percentage of the poles that they're
14 on. Generally the old agreements called for three
15 foot of space. So they'll pay for three foot of
16 space on all those Duke poles that are beyond the
17 percentage.

18 Q Okay. And do you know what the rate
19 is that's charged by AT&T of Duke?

20 A I don't at this point.

21 Q And do you know what the rate is that
22 is charged by Duke to Embarq?

23 A It's -- I know Embarq is around \$18,
24 but I'm not sure.

1 any of Current's affiliates to Duke's poles?

2 A No.

3 Q Do you know of any safety inspections
4 involving Current or Current's affiliates?

5 A Any time an attachment is put on a
6 pole, the process is to do a post inspection to make
7 sure that that attachment is in compliance.

8 Q Other than the post-construction
9 inspections, are you aware of any audits or surveys
10 of Current's facilities?

11 A No.

12 Q Are you aware of complaints having
13 been made by cable operators about the manner in
14 which Current or CG&E was attaching Current's
15 facilities to Duke's poles?

16 A No.

17 Q Do phone companies have power supplies
18 on Duke's poles?

19 A They have terminal boxes generally
20 mounted on their own poles. I'm sure there are some
21 on Duke poles, but the intent is to keep them on
22 telephone poles.

23 Q To the extent that they have terminal
24 boxes on Duke's poles, do they pay a separate rental

1 rate for that?

2 A No.

3 Q Do phone companies have risers on
4 Duke's poles?

5 A They do.

6 Q Do they pay a separate, additional
7 rate for risers?

8 A No.

9 Q Now, you said that at one time drop
10 poles had a designation of CC?

11 A That was current contact.

12 Q And so they were not included in the
13 poles for terms of sharing arrangements; is that
14 right?

15 A As far as I know.

16 Q As far as you know they were not?

17 A Yeah. That, I really don't know for
18 sure.

19 Q Has Duke conducted any kind of an
20 audit to identify all of Duke's drop poles to which
21 the phone companies may be attached?

22 A I'm not aware of it.

23 Q When the phone companies were
24 attaching to drop poles under the CC system, were

1 Q Do you know how long this has been
2 going on?

3 A I would have to estimate a number of
4 years. I don't know.

5 Q You've been riding around Duke's
6 outside plant Ohio for how many years?

7 A 13.

8 Q You weren't riding around prior to
9 that?

10 A Yes, I was.

11 Q Looking at the plant?

12 A Yes. Yes.

13 Q You could see whether there is a drop
14 attachment evident from riding around; isn't that
15 true?

16 A Well, that's true if that's what
17 you're looking for.

18 Q So you weren't necessarily looking for
19 this before 13 years ago; is that right?

20 A That's right.

21 Q So you don't know whether cable
22 operators were attached to Duke's drop poles prior
23 to 13 years ago? You just didn't notice?

24 A Oh, I had -- yes, I noticed they were.

1 Q Okay. So some time prior to 13 years
2 ago you know this has been taking place, right?

3 A Yes.

4 Q And do you think it's been evident to
5 other people in Duke that cable companies have been
6 attached to Duke's drop poles for a period of time?

7 A Yes.

8 Q And are you aware that cable operators
9 have traditionally not applied to Duke before the
10 fact to make attachments to drop poles?

11 A Since I'm not working in Ohio, I don't
12 know what the application was. I would have to say
13 they probably didn't. I don't know.

14 Q You weren't working in Ohio?

15 A No.

16 Q Now, are you aware of the fact that
17 for many years cable companies in Ohio did not apply
18 or provide notice to Duke of attaching to drop
19 poles?

20 MS. WATTS: I'm going to note a
21 continuing objection here to relevancy.

22 MR. GILLESPIE: Fine.

23 MS. WATTS: You can go ahead and
24 answer.

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 14
Excerpts of Deposition of Teresa Brierly of December 15, 2008

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.)

DEPOSITION OF: TERESA BRIERLY

December 15, 2008

3:05 p.m.

REPORTED BY:

Renee Rogers, Registered Professional Reporter

1 telephone company is on an existing pole and they
2 want to get another attachment on that pole, they
3 may do so within the space allowed them within the
4 agreement.

5 So, no, Cincinnati Bell would not
6 notify me every time they want to put an attachment
7 on the pole. Yes, Time Warner should.

8 Q Okay. Now, I'm not asking you what
9 you believe should be done. I'm just trying to get
10 an understanding of what the parties actually do,
11 okay?

12 Let me define what I mean by a drop
13 pole. By drop pole I mean a pole that is off the
14 distribution line that is used to help carry a
15 service drop to the home, okay?

16 A Yes.

17 Q Now, my question has to do with if
18 there is a Duke drop pole that, let's say,
19 Cincinnati Bell is not already attached to, if
20 Cincinnati Bell wants to attach to that drop pole to
21 provide service to the customer, do you know whether
22 Cincinnati Bell requests permission, files an
23 application with Duke before doing so?

24 A I don't know.

1 whether or not the complaints that Time Warner had
2 were justified; is that right?

3 A I don't have any knowledge of what
4 transpired.

5 Q Okay. Do you know whether
6 unauthorized attachments have any higher percentage
7 of safety violations than authorized attachments?

8 A I don't know.

9 Q Do you know whether the 2005 audit has
10 identified safety violations that were created by
11 Duke?

12 MS. SPILLER: Objection to the
13 relevance.

14 Go ahead.

15 A I don't know.

16 Q Didn't you review certain alleged
17 safety violations in connection with that audit?

18 A I reviewed violations, none that I'm
19 aware of that were specifically identified as
20 safety.

21 Q Well, you're aware that that audit
22 contained identification of some situations that
23 were purported to be violations of the code or of
24 Duke's technical requirements?

1 A Yes.

2 Q And didn't you review a series of them
3 and determine that some were not violations at all?

4 A Yes. Yes.

5 Q And didn't you also determine that
6 there were a number that had been created by Duke?

7 MS. SPILLER: Object to the relevance.

8 Go ahead.

9 A I identified some at the time that I
10 was looking at them that Duke had added additional
11 equipment or certain things to the pole at the time,
12 and there were a few that I determined that, yes, we
13 added equipment.

14 Q That had created a safety violation,
15 right?

16 A That had created a violation on the
17 pole, yes.

18 Q And isn't it true that of the 26 you
19 looked at, you determined that Duke had been
20 responsible for creating 22?

21 MS. SPILLER: Objection.

22 Go ahead.

23 A Those numbers are not correct.

24 Q What are the correct numbers?

1 A I can tell you that I looked at 80. I
2 cannot tell you of those 80 precisely how many I
3 identified as a situation where Duke added
4 additional equipment.

5 Q Isn't it true that Duke added
6 additional equipment on about 22 of those?

7 A I don't know.

8 Q You don't?

9 A I don't recall the number.

10 Q Do you know whether Duke has corrected
11 any of the violations that you determined that it
12 had created?

13 MS. SPILLER: Again, objection;
14 relevancy.

15 A I know that Duke has corrected some
16 violations, and some of those were not caused by
17 Duke.

18 Q How many has Duke corrected?

19 A I don't have an exact number.

20 Q Give me an approximate number.

21 MS. SPILLER: No. She's not required
22 to guess.

23 MR. GILLESPIE: I'm not asking her to
24 guess. I'm asking for an approximate

1 number. That's a fair question.

2 MS. SPILLER: I'm going to note my
3 objection. Teri, if you --

4 MR. GILLESPIE: That's fine.

5 MS. SPILLER: -- don't know, you don't
6 know.

7 MR. GILLESPIE: Well, you're telling
8 her how to answer, and I really do object
9 to that.

10 MS. SPILLER: She's not -- in this
11 deposition she is to be deposed based upon
12 her personal knowledge.

13 MR. GILLESPIE: That's right. And
14 I've asked her for an approximate number.
15 If she can't give one, she can't give
16 one. But I find it very offensive for you
17 to be telling her how to answer.

18 MS. SPILLER: Well, I find it somewhat
19 offensive that you're pressing her for
20 speculative information in the form of an
21 approximate number.

22 MR. GILLESPIE: That's not
23 speculation.

24 MS. SPILLER: An approximate number is

1 a speculative number --

2 MR. GILLESPIE: It is not.

3 MS. SPILLER: -- because she doesn't
4 know the accurate number.

5 Q Can you give me an approximate
6 number?

7 A I don't know.

8 MS. SPILLER: Note my objection.

9 Q Can you tell me how many of the
10 violations that you found that Duke was responsible
11 for creating that Duke has now corrected?

12 MS. SPILLER: Objection; asked and
13 answered.

14 Go ahead.

15 A I don't have a number.

16 Q Do you know whether Duke has corrected
17 any of those particular situations?

18 MS. SPILLER: Objection; asked and
19 answered.

20 Go ahead.

21 A I know some violations have been
22 corrected.

23 Q Those violations?

24 A Some violations have been corrected.

Testimony of Patricia Kravtin
Ohio Cable Telecommunications Association
Case No. 08-709-EL-AIR, et al

Attachment 15
Excerpts of Deposition of Donald Storck of November 21, 2008

BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for an Increase in) 08-709-EL-AIR
Electric Distribution Rates.)

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for a Tariff Approval.) 08-710-EL-ATA

In the Matter of the Application of Duke) Case No.
Energy Ohio, Inc. for Approval to Change) 08-711-EL-AAM
Accounting Methods.)

In the Matter of the Application of) Case No.
Cincinnati Gas & Electric Company for) 06-718-EL-ATA
Approval of its Rider BDP, Backup)
Delivery Point.)

DEPOSITION OF: DONALD STORCK

November 21, 2008

9:00 a.m.

REPORTED BY:

Renee Rogers, Registered Professional Reporter

1 Q Do you know what Duke now charges for
2 use of its conduit?

3 A No, I do not.

4 Q Who would know that?

5 A It would be whoever does the billing
6 for that. I don't know the name of the person.

7 Q Has Duke made any calculations
8 regarding conduit charges?

9 A No, it has not.

10 Q Do you know whether the conduit
11 charges that Duke currently charges have been
12 determined based on cost?

13 A I don't know.

14 Q Turning to the application section on
15 the next page. Do you know whether the tariff would
16 require cable operators and other attaching parties
17 to file a permit application before making an
18 attachment to a drop pole?

19 A It says they have to make a written
20 application.

21 Q Would that apply to drop poles?

22 A I assume so, yes.

23 Q Would the application have to be made
24 before attachment, or could it be made afterwards?

1 A The tariff says it's not presumed to
2 have permission to make any attachment until after
3 the 45-day period, by either notification or a
4 45-day period.

5 Q So in order to make an attachment to a
6 drop pole, the cable operator would have to make an
7 application and then wait for Duke to rule on that
8 application?

9 A Yes.

10 Q And that ruling could take less or
11 more than 45 days?

12 A It can't take more than 45 days.

13 Q What if Duke takes longer than 45 days
14 to respond; is there any sanction provided for in
15 this tariff?

16 A Sanction to Duke?

17 Q Yes.

18 A No. There is none.

19 Q So if a cable operator applied to make
20 an attachment and Duke did not respond within the 45
21 days, what could the cable operator do in order to
22 get a resolution from Duke? Do you know?

23 A It would obviously call Duke to
24 determine the status of the --

1 section entitled safety violations. This is in
2 Exhibit Number 7. In the first sentence you see the
3 reference to attachments that, quote, interfere with
4 the operation of facilities of the company?

5 A Yes.

6 Q Do you see that?

7 A Yes, I do.

8 Q Can you tell me what Duke means by
9 attachments which interfere with the operation of
10 facilities of the company?

11 A It would be ones that are not placed
12 appropriately for the operation of our company.

13 Q Does that mean attachments which may
14 have been placed properly at the time but that now
15 are in violation of -- that now would inhibit the
16 company's ability to use a pole for a certain
17 purpose?

18 A I suppose it could be interpreted that
19 way.

20 Q So this could apply if the company
21 wanted to use space that was occupied by the
22 attacher now?

23 A It could.

24 Q It could apply where Duke has caused

1 the interference such as placing an additional
2 facility on the pole after the cable attachment was
3 made?

4 MS. SPILLER: I'm going to object. I
5 don't think that's a fair interpretation.

6 A I suppose it could.

7 Q So in a situation where the cable
8 attachment was properly made and Duke has added a
9 transformer on top of it, which has created an NESC
10 violation, that situation would be treated as a
11 safety violation by the cable operator which would
12 interfere with the operation of facilities of the
13 company; is that right?

14 MS. SPILLER: I'm going to object to
15 the form.

16 Go ahead.

17 A I'm not sure how that would be
18 handled.

19 Q But the language would be subject to
20 that interpretation, would it not?

21 A You could interpret the language that
22 way, yes.

23 Q Would the language apply to a new
24 requirement made by Duke imposed after the

1 you like to be deposed?

2 MS. SPILLER: Note my objection to the
3 form of your question.

4 MR. GILLESPIE: All right.

5 A This doesn't apply to Duke. This is a
6 tariff for the attachments of the licensees.

7 Q So the sanctions would not apply to
8 Duke?

9 A The sanctions would not apply.

10 Q So it would be Duke's intention that
11 the licensee fix all safety violations of which Duke
12 had noticed within ten days, no matter how many such
13 violations were noticed on a particular day?

14 A It is their intent to have licensees
15 fix these within ten days.

16 Q So if Duke conducted an inspection and
17 found a number of things that did not meet the
18 standards that Duke has proposed, and notified a
19 cable company of the situations on day one, under
20 the tariff a cable company would be required to fix
21 every one of them within ten days; is that right?

22 MS. SPILLER: Objection; asked and
23 answered.

24 A That's what the tariff states.

1 Q Would the sanction in this section
2 apply to telephone companies?

3 A The sanctions apply to people to which
4 this tariff applies.

5 Q And the tariff does not apply to
6 telephone companies, correct?

7 A That is correct.

8 Q Do you know whether there are similar
9 sanctions in the agreements between Duke and the
10 phone companies?

11 A No, I do not.

12 Q You've not made inquiry to determine
13 whether or not that's true; is that right?

14 A That is correct.

15 Q Do you know whether any inspections
16 conducted on behalf of Duke have turned up
17 violations of the National Electrical Safety Code
18 that had been created by Duke?

19 A I'm not familiar with any of the
20 audits or inspections.

21 Q And you don't know whether any of
22 those violations have been corrected; is that right?

23 A I would not know.

24 Q Would you turn to Duke's response to

**REPORT OF
PATRICIA D. KRAVTIN**

Submitted:

*IN THE SUPERIOR COURT
OF THE STATE OF WASHINGTON
FOR THE COUNTY OF PACIFIC
CASE NO. 07-2-00484-1
PACIFIC UTILITY DISTRICT NO. 2 OF PACIFIC COUNTY,
Plaintiff, v.
COMCAST OF WASHINGTON IV, INC.,
CENTURYTEL OF WASHINGTON, INC., and
FALCON COMMUNITY VENTURES I, L.P.
d/b/a CHARTER COMMUNICATIONS,
Defendants*

September 18, 2009

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Attachments

- 1: Detailed Resume
- 2: Rate Calculations for Pre- and Post-June 12, 2008

INTRODUCTION

Qualifications

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. I have also provided expert testimony and reports in proceedings before the Federal Communications Commission (“FCC”), the Federal Energy Regulatory Commission (“FERC”), and before international agencies including the Canadian Radio-television and Telecommunications Commission, the Ontario Energy Board, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation in federal district courts, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience is provided in Attachment 1 to this report.

3. Over the past decade, I have participated in a number of state regulatory commission proceedings involving the various cost methodologies used to allocate the costs of incumbent local exchange carriers and electric utilities. I have also been actively involved in proceedings, both at the state and federal level, concerning implementation issues, including those related to cost allocation, in connection with the passage of the Telecommunications Act of 1996 (“Telecom Act”). One local network component, essential for the provision of competitive communications services, with which I am also very familiar, and have testified extensively on, is access to poles, ducts, conduits, and rights-of-way. At the federal level, I submitted initial and reply reports in the FCC’s current pole attachment rate proceeding, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission’s Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303 (“FCC 2008 Pole Proceeding”). In 2006, I submitted testimony and was subject to live cross-examination before

the FCC's Chief Administrative Law Judge, on issues pertaining to utility compensation for pole attachments in *In the Matter of Florida Cable Telecommunications Association, Inc., et. al. v. Gulf Power Company*, Initial Decision, FCC 07D-01, 22 FCC Rcd 1997 (2007) (appeal pending)("FCTA"). Previously, I submitted declarations on pole attachment, conduit and rights-of-way issues before the FCC in a pole attachment rulemaking proceeding, CS Docket No. 97-98, and in a pole attachment complaint proceeding *Cavalier Telephone v. Dominion Virginia Power*, Case No. EB-02-MD-005. I have also testified on matters relating to the costing and pricing of utility and incumbent local exchange carriers' pole attachments in proceedings before state public utility commissions including the Public Utility Commission of Ohio (Case No. 08-709-EL-AIR et. al), the Arkansas Public Service Commission (Docket No. 08-073-R), the New Jersey Board of Public Utilities (Docket EO0511005), the District of Columbia Public Service Commission (Formal Case No. 1006), the New York Public Service Commission (Cases No. 02-M-1636 and No. 98-C-1357), the Georgia Public Service Commission (Docket 7061-U) and the South Carolina Public Service Commission (Docket 97-374-C), and in Canada before the Ontario Energy Board (RP-2003-024).

Assignment and Organization of Report

4. I was retained by Defendants Comcast and Charter to address matters raised in *Pacific Utility District No. 2 of Pacific County, v. Comcast Of Washington Iv, Inc., CenturyTel of Washington, Inc., and Falcon Community Ventures I, L.P. D/B/A Charter Communications* relating to pole attachment rental rates from an economic and public policy perspective, including the appropriate pole rate methodology for calculating maximum lawful pole rental rates applicable to the Pacific County Public Utility District ("District" or "PUD"). As part of my assignment, this report will provide calculations of the District's maximum pole attachment rental rates applicable to both the pre- and post- June 12, 2008 time periods, in accordance with the original and revised versions, respectively, of the applicable pole attachment rate statute, RCW 54.04.045. Because in my opinion as an economist with experience in determining just and reasonable rates, an economically appropriate just and reasonable rate that the District may charge for third-party pole attachment rent pursuant to RCW 54.04.045 should be calculated based upon the FCC cable

and telecom rate methodologies, my report explains the mechanics of and economic justification for the FCC methodologies in some detail.

5. This report is organized into four major sections:

- *Section I* addresses the structural characteristic of poles as essential facilities and the proper role of effective pole rate regulation in preventing utility pole owners from exploiting their monopoly over poles to the detriment of competition and the greater public good;
- *Section II* describes the existing FCC cable rate formula methodology and explains why the maximum pole rental rate derived from that formula is an economically appropriate, just and reasonable rate to apply prior to the revised RCW 54.04.045 and in the calculation of the 3(a) component of the revised statute;
- *Section III* explains the major components of the FCC cable formula methodology that I used to calculate the rate pursuant to the original version of RCW 54.04.045 and the 3(a) component of the revised statute, and as the foundation of the 3(b) component of the revised statute; and
- *Section IV* describes the calculation of and justification for maximum pole rental rates applicable to the pre-and post June 12, 2008 time periods, using data provided by the District in discovery, pursuant to my understanding of the original and revised versions of RCW 54.04.04, and in accordance with core principles of effective pole regulation as described in this report.

I. THE STRUCTURAL CHARACTERISTIC OF POLES AS ESSENTIAL FACILITIES AND THE ROLE OF EFFECTIVE POLE RATE REGULATION IN CURBING POLE OWNERS' ABILITY TO IMPOSE MONOPOLY RENTS

Utility poles are essential bottleneck facilities to which cable and other third-party entities need to attach.

6. Utilities have absolute control over access to poles, conduits and utility rights-of-way.

Historically, utility dominance of pole and conduit facilities arose as a result of public policies whose goal was to establish the widespread availability of electric and telephone service, along with the growth and stability of the industries themselves. The established utility pole networks that resulted from these deliberate policies have been paid for over the years, as appropriate, by the utility's monopoly ratepayers for whom those networks were built and maintained.

7. Third-party attachers, such as cable operators, did not have the same opportunity to construct their own pole networks. Due to a host of real-world constraints, including zoning, environmental, municipal ordinance, financial, social, aesthetic and other restrictions, it is not practical or possible to build a second set of poles. In any given area, there is generally one utility pole owner with surplus space. There is no other regulated or unregulated entity that leases pole or conduit in sufficient number or location so as to provide the cable operator or other third-party attacher with a viable alternative to the leasing of pole or conduit space from the existing utility.

8. Because utility pole owners have a monopoly over pole networks, cable operators and other communications entities often have no choice but to attach to utility-owned facilities. This necessary shared use of established, monopoly-owned pole networks is described in the economics and public policy literature as access to or use of "essential" or "bottleneck" facilities.¹ Where a utility has absolute control over essential facilities, effective regulation of

¹ See *NCTA v. Gulf Power*, 534 U.S. 327, 330 (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 charge monopoly rents.")

these facilities is necessary to curb monopoly abuses, such as excessive prices and restrictive access.

9. In 1978, Congress passed the Pole Attachment Act (Section 224 of the Communications Act), in recognition of the fact that cable operators typically have no practical alternative to the use of utility pole facilities and to address monopoly abuses by utilities, including excessive monopoly rents, that the utilities' absolute control over access to poles allows them to impose.² In this regard, nothing has changed since Congress enacted the Pole Attachment Act. Indeed, even in 1996, when the Pole Attachment Act was amended to require pole owners to provide access to competitive telecommunications providers³ in conjunction with passage of the 1996 Telecommunications Act ("Telecom Act"), Congress continued to recognize that, without continued vigilance over pole owners and effective pole attachment regulation, pole owners would abuse their monopoly status even more so because they were given the ability to compete.⁴

10. Fundamentally, it was the lack of viable market-based alternatives for pole space that led Congress to adopt the Telecom Act to extend protections previously afforded only cable

² From the legislative history in connection with the 1978 Pole Attachment Act :“Owing to a variety of factors, including environmental or zoning restrictions and the costs of creating 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....” S. Rep. No. 95-580, at 13 (1977); also, from the same report:“public utilities by virtue of their size and exclusive control over access to pole lines, are unquestionably in a position to extract monopoly rents from cable TV systems in the form of unreasonably high pole attachment rates.” *Id.* From the 2002 Eleventh Circuit Court decision, “As the owner of these ‘essential facilities,’ the power companies had superior bargaining power, which spurred Congress to intervene in 1978.” *Alabama Power v. FCC*, 311 F.3d 1357, 1362 (11th Cir. 2002) (“*Alabama Power*” or “*APCo*”).

³ Prior to the Telecom Act, pole regulation applied only to cable operators, and access was not required. Under the Telecom Act, language was added to Section 224(f) of the Communications Act that mandated access for cable operators and competitive telecommunications providers alike: “A utility shall provide a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by it,” subject only to very limited exception applied “on a non-discriminatory basis, where there is insufficient capacity and for reasons of safety, reliability, and generally accepted engineering purposes.” 47 U.S.C. §224(f).

⁴ See, e.g., *APCo*, 311 F.3d at 1361-63 (“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.”)

operators to new telecommunications providers, and also to require utilities to provide non-discriminatory access to these essential pole facilities for both cable operators and telecommunications carriers. As the legislative history and language in the Telecom Act suggests, in expanding the FCC's jurisdiction over poles 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.

11. Notwithstanding that non-profit, consumer-owned entities such as the District are excluded from the definition of utility in the Pole Attachment Act,⁵ the fundamental economic conditions of demand and supply facing cable and other third-party attachers needing access to poles owned by electric cooperatives, and the incentive and opportunity for electric cooperatives to leverage their monopoly ownership of poles over third-party attachers are inherently the same as that for investor-owned utilities. Any notion that the market dynamics would be different in the case of a non-profit consumer-owned entity such as the District and other electric utility cooperatives is belied by the monopoly level rate increases put forth by the District and that gave rise to this litigation.⁶

12. Because there is no competitively-functioning market for poles, there is no market process in action to drive down the costs of pole construction or any potential alternatives such as going underground to levels approximating economically-efficient marginal costs.⁷ In the absence of free market conditions capable of constraining prices to more competitive levels, the responsibility falls to the regulator to impose pricing discipline through holding the utility to an

⁵ See 47 U.S.C. §224 (a)(1) ("The term 'utility' means any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications. Such terms does not include any railroad, any person who is cooperatively organized, or any person owned by the Federal Government or any State.") The governing Washington statute refers to these types of entities as a "locally regulated utility." See RCW 54.04.045 §(1)(c) ("'Local regulated utility' means a public utility district not subject to rate or service regulation by the utilities and transportation commission.")

⁶ The District increased pole rental rates for cable attachments from \$5.75 to \$13.75 in 2007, increasing to \$19.70 afterwards, which represent increases of 139% and 243% respectively. Moreover, these rates exceed a just and reasonable cost-based rate (as calculated in Section IV of this report) by as much as 302%.

⁷ A competitive market is defined by the existence of 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. Only under conditions approximating effective competition can market forces be relied on to bring rates down to levels consistent with marginal costs.

objective, cost-based just and reasonable standard that reflects the true economic costs to the utility of hosting an attachment. The inability to extract additional pole rent over and beyond a competitive market rate from captive attachers does not represent a real or economic “cost” to which the utility is entitled. Moreover, the purpose of pole rate regulation has decidedly *not* been about maximizing third-party contribution to the revenue requirement for the utility’s core electric services (which is properly recoverable from the utility’s ratepayers for whom the pole network was built and maintained), but rather to *limit* the rents that utilities are permitted to charge third-party attachers to levels more in line with what a competitively-functioning market for poles (if one existed, which it does not) would produce.

13. Without effective regulatory intervention, third-party attachers, on their own, would have little recourse but to accept onerous rates and conditions for pole attachment offered by the utilities on a “take it or leave it” basis. Effective regulatory intervention is needed to help ensure an outcome that effectively and efficiently balances the interests of the utility and the third-party attacher, and at the same time promotes the public policy goals of a competitive telecommunications market and the widespread deployment of advanced information-age services and technology.

The pole-owning utility’s incentive to leverage its monopoly control of essential pole facilities has become even greater with direct competition between communications attachers and pole owners.

14. While dynamic changes in market, regulatory, and technological conditions have occurred in the telecommunications industry over the past decade, and are continuing to occur, the underlying structural economic conditions of supply and demand for pole attachments have remained relatively unchanged. Utility pole owners continue to possess considerable monopoly power relative to pole and conduit attachments, and cable operators, and other third parties continue to have little practical choice but to attach to utility outside plant.

15. As much today as it was some thirty years ago when Congress first enacted pole attachment legislation, attachers do not, as a practical reality, have the option of duplicating the pole networks constructed by the utilities. While an attacher may have the option of installing its own

underground conduit in certain limited cases, generally that is at an expense much greater than the utility's actual costs of accommodating the attacher on its existing pole network.⁸

16. The utility pole owner's incentive to charge excessive pole attachment rates, has, if anything, increased in the post-Telecom Act period with direct competition between the utilities and those requiring access to their poles. The entry, or even the prospect of entry, of electric distributors (or their affiliates or companies in which they have an interest) into adjacent telecommunications and broadband markets in recent years, provides increased opportunities for cross-subsidization, which only heightens the utilities' existing incentive to charge pole attachment rates well in excess of economically-efficient marginal costs.⁹ In fact, the District has installed a fiber network on its poles through which end-user access to the District's fiber has been available on a retail basis beginning in 2003.¹⁰

17. Consequently, today, more than ever, effective regulation of the rates charged to third-party attachers by utility pole owners such as the District for access to essential pole facilities, is needed to keep those rates at levels closer to those that would exist in effectively competitive markets in order to maximize the use of societal resources for the public good and promote competition and the deployment of new and innovative broadband services. The utilities' continuing ability and incentive to leverage their monopoly over poles in the post-Telecom Act period is further evident in the number and intensity of contract disputes over rates and in formal

⁸ See *Alabama Cable Television Ass'n v. Alabama Power Co.*, 16 FCC Rcd 12209 (2001) ("ACTA") at ¶69. ("[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.")

⁹ For a full discussion of the ability of utilities to engage in implicit and explicit forms of cross-subsidization between regulated and non-regulated affiliates, see the National Regulatory Research Institute, Briefing Paper, "Repeal of the Public Utility Holding Company Act of 1935: Implications and Options for State Commissions," August 2006, pp. 7-14. "In spite of all intervening statutory and regulatory changes since PUHCA 1935, three major problem areas remain when dealing with holding companies today: transfer pricing between affiliates; the problems of cost allocation and cross-subsidization; and corporate financial abuse that is sometimes subtle and hard to pin down." *Id.* at p. 7.

¹⁰ See Pacific County PUD, Annual Report, 2007, at 28 (Bates-numbered document CTL 1270). ("In July of 2003, the District connected its fiber optic system to NoaNet's fiber optic communications system and began making excess capacity available at wholesale rates to retail service providers. These retail providers are in turn offering end users access to the District's fiber for Internet and point-to-point interconnections on a retail basis.")

regulatory and/or legal proceedings involving utilities and third-party communications attachers in recent years.¹¹

18. To summarize, the primary purpose of pole rate regulation has historically been, and continues to be, about protecting cable operators and other third-party attachers against monopoly abuses of pole-owning utilities. Fundamental to pole rate regulation is recognition that pole-owning utilities, by virtue of historical incumbency, own and control existing pole plant to which cable operators and other third-parties have no practical alternative but to attach, and who in the absence of such regulation, would be in a position to limit access to these essential bottleneck facilities and/or to extract excessive monopoly rents. The purpose of pole rate regulation has decidedly *not* been about maximizing third-party contribution to the revenue requirement for the utility's core electric services (which is properly recoverable from the utility's ratepayers for whom the pole network was built and maintained), but rather to *limit* the rents that utilities are permitted to charge third-party attachers to levels more in line with what a competitive market (if one existed, which it does not) would produce.

Shared occupancy on poles, priced at efficient cost-based rates, produces an economic “win-win” for pole owners and attachers, and produces key benefits for consumers.

19. As clearly articulated by Congress in the earlier legislative history in connection with the 1978 Pole Attachment Act (and reiterated in connection with the 1996 Telecom Act), sharing arrangements for pole users are efficient, practical, and necessary for the public good.¹² Cable

¹¹ This heightened incentive for utilities to leverage their monopoly power over poles is explicitly acknowledged by the Eleventh Circuit Court as an important backdrop to its decision in *Alabama Power*. See *APCo*, 311 F.3d at 1361-63. (“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 [Telecom] 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.”)

¹² “Sharing arrangements minimize unnecessary and costly duplication of plant for all pole users, utilities as well as cable companies.” S. REP. NO. 95-580, at 16 (1977).

operators are occupying otherwise available and unused space on existing poles.¹³ To the extent space is not currently available on a pole, utilities are able to fully recover any out-of-pocket costs incurred in connection with making space available through routine rearrangement of facilities on the pole and/or pole replacement through “make ready” charges that utilities impose on cable attachers. In addition, utilities enjoy the benefit of any and all such improvements to their pole assets fully funded by cable operators through those make-ready charges, including: newer, stronger poles for their own operations, realization of savings (or deferred capital expenditures) to their own build-out program,¹⁴ and more space available on the pole to accommodate additional uses and/or users and for which utilities can realize additional sources of revenue.¹⁵

20. Under these conditions, there can be no valid claim of subsidy or specific cost burden borne by the utility company, its ratepayers, or any other attacher as a result of the attachment. While economists may disagree on many things, there is perhaps one central tenet upon which there is solid agreement, and that is the notion that rates that recover the marginal costs of production are economically efficient and subsidy-free.¹⁶ For a subsidy to occur, the utility must have unrecovered costs that *but for* the attacher would otherwise not exist. This is decidedly *not* the case for pole attachments since make ready charges alone essentially cover the marginal costs of attachment. From an economics standpoint, where rates cover the additional or marginal cost of attachment, neither the utility 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).¹⁷ The economist’s notion

¹³ In a 2007 decision, the FCC’s Chief Administrative Law Judge described the situation as one in which “the cable operator occupies space that would otherwise be vacant” because “space is available for all those who request space.” See *Florida Cable Telecommunications Association et al v. Gulf Power Company*, EB Docket No. 04-381, FCC 07D-01 (Rel. Jan. 31, 2007) (“*FCTA*”) at 10. See also *FCTA* at 13. (“CATV offers an income-producing use of an otherwise unproductive and often surplus portion of plant.”).

¹⁴ *ACTA*, 16 FCC Rcd. 12209 at ¶ 58. (“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.”)

¹⁵ Utilities can end up with greater available pole capacity as compared with pre-attachment, because cable attachments place minimal space demands on the pole and poles come in standard, 5-foot incremental heights.

¹⁶ See, e.g., Paul A. Samuelson, *Economics*, Tenth Edition, McGraw-Hill Book Company, 1976 at 462-3.

¹⁷ See, e.g., Bridger M. Mitchell, “COSTS AND CROSS-SUBSIDIES IN TELECOMMUNICATIONS,” *The Changing Nature of Telecommunications/Information Infrastructure*, National Academy Press, Washington, DC, 1995. “A group of customers is being subsidized if their price is so low that the service supplier and its other customers would be better

of cross-subsidy avoidance is consistent with the legal principle in takings law for just compensation as summarized in the *Alabama Power* case.¹⁸

21. Figure 1 below illustrates the physical configuration of a typical shared utility pole on which power, telephone, cable, and other communications attachers have installed facilities. In reality, there can be all manner of other devices also present on the pole including streetlights, private floodlights, traffic signals, fire and police call boxes and alarm signal wires, and municipal communications systems.

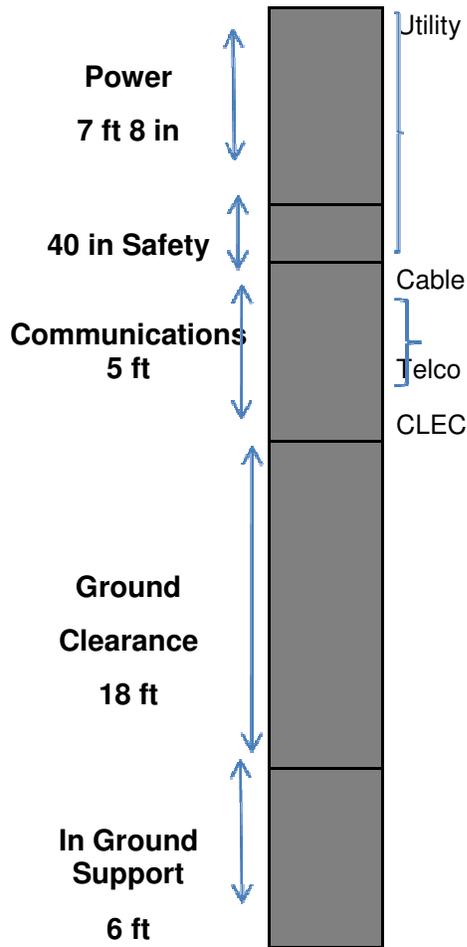
22. As shown in Figure 1, the typical pole has 6 feet of its height underground as support, and another 18 feet reserved for clearance above ground as required to clear possible interference and obstacles along the path of the pole network.¹⁹ Space for communications attachments, as historically specified under joint use agreements between power and telephone utilities, is available immediately above the required ground clearance. In the post-1996 Telecom Act period, one or more competitive telecommunications providers are in some areas also attached within the shared communication space. As is also common industry practice, power lines are generally located on the upper-most portion of utility poles.

off if the service were discontinued. This circumstance occurs only when the increase in revenues to the [telephone] company from offering the service is less than the increased costs of providing it.”

¹⁸ “*APCo* 311 F.3d at 1369. (“This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better.”)

¹⁹ See *Second Report and Order, In the Matter of Adoption of Rules for the Regulation of Cable Television Pole Attachments (FCC Second Report and Order)*, FCC Docket No. 78-144, 72 FCC 2d 59, 1979 FCC LEXIS 374, at *68; n.21.)

Figure 1
Illustrative Space Allocation on Typical 40' Shared Utility Pole



23. Below the electric utility attachments is a 40 inch separation (safety) or neutral space pursuant to requirements of the National Electric Safety Code (NESC). The FCC treats this space as “usable,” as is appropriate given the utility’s routine use of this space and its ability to realize revenues from the rental of that space for street lights. As the FCC has recognized, it is “the common practice of electric utility companies to make resourceful use of this safety space by mounting street light support brackets, step-down distribution transformers, and grounded, shielded power conductors therein... be[ing] of practical benefit to the electric utility.”²⁰ Indeed,

²⁰ *Id.* at *71.

consistent with the FCC finding, the District too has the common practice of attaching street lights in the 40-inch space on its poles.²¹

24. In addition to the respective benefits to the parties directly involved (i.e., the private benefits of the transaction), there are important public benefits that accrue to the society at large from shared pole arrangements at an economically efficient rate. From a “societal welfare” point of view, there is economic value to society associated with the efficient use of resources, i.e., the use of resources resulting in the lowest overall cost to society and the best possible utilization of those resources as compared with alternative uses. Electric distribution networks including poles are a classic case of what economists refer to as a “natural monopoly,” meaning “economies of scale are so persistent that a single firm can serve the market at a lower unit cost than two or more firms.”²² As a consequence, the shared use of a utility’s existing distribution network results in a lower overall cost to the economy as a whole in terms of the consumption of society’s resources. Resources that would otherwise be used (unnecessarily and more expensively) to duplicate existing pole networks are instead freed up and can be put to more productive uses – in particular, ones that can provide concrete benefits to consumers such as the provisioning of new and improved services and at lower prices to consumers.

25. The closer the prices charged for the shared use of the natural monopoly pole facilities are to the owner’s marginal costs of attachment, the more efficient the outcome in terms of maximizing the productive use of societal resources. Perhaps more importantly, marginal cost pricing creates conditions more likely to simulate and therefore stimulate competition market performance, with its wide-ranging benefits to consumers in the form of lower prices, greater choices among new and innovative broadband services, and enhanced productivity and economic development opportunities. Because of the positive impacts associated with such conditions, it makes economic sense to ensure cable’s access to essential pole facilities continues at levels that most closely approximate the competitive market standard of marginal costs. The possibility of lost value to consumers and society in general from allowing utilities to charge too high a price for

²¹ See District Response to CenturyTel’s First Set of Interrogatories, No. 11, 13 (confirming it attaches street lights within this space).

²² F.M. Scherer, *Industrial Market Structure and Economic Performance*, Rand McNally, Chicago, 1980, at 482.

pole attachments relative to the marginal costs of the attachments is all the more disconcerting given the relative ease with which cable and other third party attachers have historically been accommodated through a utility's normal and customary make-ready arrangements.

26. To summarize, it continues to be efficient, practical, and necessary for cable and other third party attachers to occupy space on the utility's poles. Moreover, such arrangements are economically beneficial to *all* parties involved, including the utility, as well as to society at large. Notwithstanding the economic "win-win" of cable and other third party attachers' shared occupancy of utility poles, utilities continue to have the ability and incentive to exploit their monopoly ownership of the poles and to extract rents from attachers well in excess of the economically efficient or marginal costs of pole attachment that a competitively-functioning market would produce. Rates far in excess of a cost-based and fully compensatory rate enable the pole owner to exploit its monopoly ownership of the pole network, contrary to effective pole attachment regulation and at the expense of broadband deployment.

II. THE EXISTING FCC CABLE FORMULA IS A STRAIGHTFORWARD, COST-BASED, ECONOMICALLY APPROPRIATE PROPORTIONATE-USE APPROACH FOR DETERMINING A JUST AND REASONABLE POLE RATE

27. In the 1978 Pole Attachment Act, Congress directed the FCC to implement a cost-based methodology for determining a just and reasonable pole attachment rate that "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...occupied by the pole attachment by the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole."²³ Pursuant to this directive, the FCC developed a methodology, that has come to be known as the FCC cable rate formula, that has been widely adopted in this country for setting rates for third-party pole attachments, including in those states such as Washington that have elected to self-regulate.²⁴ The FCC cable rate formula is a straightforward

²³47 U.S.C. §224 (d)(1) (emphasis added).

²⁴ The FCC formula is applied directly by the FCC in 30 states, and of the 21 states (including the District of Columbia) that have certified to self-regulate pole attachment rates, the majority (approximately 16) use a formula that closely (or precisely) tracks the FCC formula. For a listing of certified states, see *FCC Corrected List of States that Have Certified That They Regulate Pole Attachments*, WC Docket No. 07-245 (rel. March 21, 2008). Since the date of that notice, Arkansas has also certified to self-regulate pole rates.

cost-based approach that allows recovery of a portion of the utilities' operating expenses and actual capital costs (including overall return to capital) attributable to the entire pole, based on the attacher's relative use of the pole.

28. By design, and as is widely recognized, the FCC cable rate formula adheres to the *greater* fully allocated cost standard set forth in Section 224(d)(1).²⁵ The fully allocated cost standard allows for recovery of costs from the attacher pertaining to the entire pole, including costs that would exist independent of the existence of the third-party attachment. By definition, adherence to a fully allocated cost standard allows the utility to recover through the rental rate ongoing costs *much more* than the additional or marginal cost of attachment and results in a pole attachment rate that lies at the high end of the permissible range established in Section 224.

29. In addition to the cost-based formula rate, the FCC approach also permits utilities to recover any incremental or up front out-of-pocket expenses incurred in connection with hosting a third-party attachment through the imposition of make ready expenses, as previously described. In this manner, utilities are effectively permitted to receive the minimum directed by Section 224 (i.e., "the additional costs of providing pole attachments" or the low end of the permissible range) even before the rental rate formula is applied. Pursuant to cost-causation principles, and to avoid any cross-subsidy between the pole owner and the third-party attacher, attachers are held responsible *only* for the costs they cause the pole-owning utility to incur, such that the utility is, at a minimum, no worse off for having hosted the third-party attachment. Through the combination of the rental rate and make ready charges -- the former adhering to a fully allocated cost standard, and the latter designed to recover the incremental costs of attachment -- utilities in fact stand to be made much better off under the FCC cable rate methodology after a third-party attachment takes place.

30. The FCC cable formula has withstood the test of time as a straightforward and economically appropriate approach for determining just and reasonable pole attachment rates. The FCC cable formula is an economically appropriate approach in that it assigns the costs of the *entire* pole -

including both direct (usable) and common (unusable) space alike - to an attachers based on an attacher's relative occupancy of usable space on the pole. This concept is illustrated graphically in Figure 2 below, as applied to a 40' standard joint-use utility pole.

31. As shown in Figure 2, under the FCC methodology, the "usable" space on a 40 feet standard joint use pole is defined as the 16 feet of pole space above the necessary ground clearance and ground support "which can be used for the attachment of wires, cables, and associated equipment."²⁶ "Unusable" space is defined as the 24 feet of space on the pole other than the usable space, consisting of the 6 feet of the pole that is below ground and the 18 feet of the pole above grade required to clear possible interference and obstacles and on which attachments cannot be made.

32. Under the FCC methodology, as previously discussed, the 16 feet of usable space includes the 40 inches of so-called "safety space," as is appropriate, since attachments can and are in fact routinely made in this space and is necessary due to the electric attachment. Defining the safety space as usable space is consistent with the fundamental economic principle of cost causation, under which the entity causally responsible (i.e., the entity but for whose existence or action a cost would not have been incurred) is attributed those costs and the fact that the electric utility routinely places attachments within this space from which they are able to derive additional revenues.²⁷

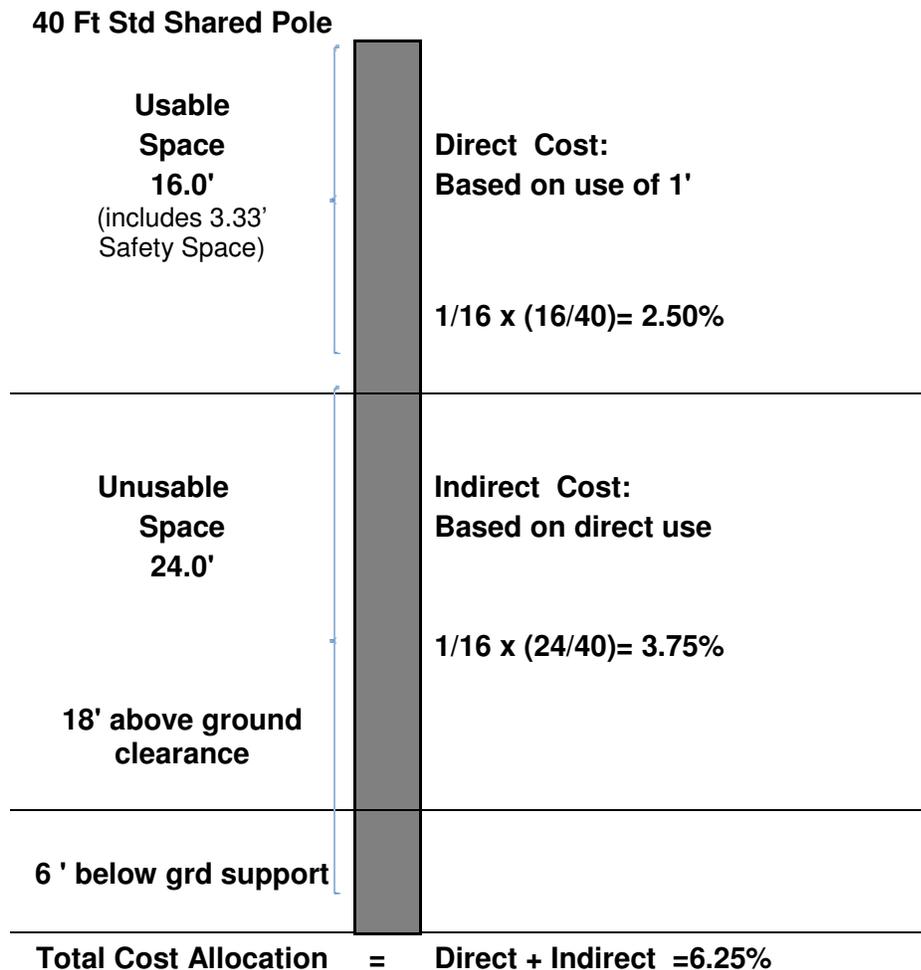
²⁵ See, e.g., APCo at 1363 ("Based on these guidelines [47 U.S.C. 224(d)(1)], the FCC promulgated regulations that focused on the upper end of this range"), and at 1369 ([T]he fact [is] that much more than marginal cost is paid under the Cable Rate.")

²⁶ 47 U.S.C. 224(d)(2).

²⁷ As found by the FCC in its 2000 *Fee Order*: "It is the presence of the potentially hazardous electric lines that makes the safety space necessary and but for the presence of those lines, the space could be used by cable and telecommunications attachers. The space is usable and is used by the electric utilities. A bare pole, when erected has portions to which attachments cannot be made at any time—the ground clearance and the part of the pole below ground. The rest is available for attachments; it is usable space. A communications attachment, even though it may be a fiber optic cable with a diameter of only one inch, is presumed to occupy one foot of the attachable space because of separation requirements. In a like manner, the electric supply cable on the pole, because of its unique spacing requirements must be 40 inches away from communications attachments. No one questions that the eleven inches of space not physically occupied by a fiber optic cable, but attributed to it, is usable space. Because the electric supply cable precludes other attachments from occupying the safety space, which would otherwise be usable space, the safety space is effectively usable space occupied by the supply cable. So long as their crews make the installation, the electric utilities are not limited by the NESC in what equipment or cables they may attach in the safety space. Accordingly, we reject the electric utilities' arguments to reduce the presumptive usable space of 13.5 feet by 40 inches."

33. Similarly, and also consistent with cost causation principles, the FCC allocates a full 1 foot of space to cable attachers to encompass “attendant clearances,”²⁸ even though the cable attachment itself is much smaller as noted above.²⁹

**Figure 2:
Allocation of Total Pole Costs under FCC Cable Formula**



²⁸See *Report and Order, In the Matter of Implementation of Section 703(e) of the Telecommunications Act of 1996, Amendment of the Commission's Rules and Policies Governing Pole Attachments*, CS Docket No. 97-151 (rel. February 6, 1998) FCC 98-20, ¶81. (“The 1977 Senate Report evidenced Congress’ intent that cable television providers be responsible for 12 inches of usable space on a pole, including actual space on a pole plus clearance space. In 1979, the Commission established the rebuttable presumption that a cable television attachment occupies one foot. The Commission subsequently refined its methodology for determining the amount of usable space and made the one foot presumption permanent.”)

²⁹ See footnote 27, supra.

34. Accordingly, the proportion of costs assigned to the attacher using the FCC's relative use allocation methodology is 1 foot of occupied space to 16 feet of total usable space or 6.25%. One must be careful not to confuse the particular *choice of allocator* (i.e. proportion of usable space occupied by the attacher) used in the FCC cable formula to attribute space on the pole with the *actual costs that are being attributed* (i.e., *total space* on the pole including both usable and unusable space). As illustrated in Figure 2, the FCC cable formula allocates this same proportionate share (1/16 or 6.25%) of the costs associated with usable *and unusable* space on the pole.

35. By assigning pole costs to attachers in accordance with their actual use of the pole, the FCC cable formula follows cost allocation principles well established in the economics and regulatory literature. In the FCC cable formula, the cost of the pole recoverable from third-party attachers is based upon the concept of cost causation, which holds that costs are properly incurred by the entity causally responsible for the costs, i.e., the cost-causer pays. This concept of a cost-causative linkage based on the proportionate use or direct occupancy of space is a common and widely-accepted practice in the leasing of property and other facilities throughout the private and public sectors of the economy. The cost allocation approach embodied in the cable rate formula follows cost causation principles in a manner directly analogous to other well accepted familiar contexts, such as an apartment house. With the apartment building analogy serving as a model, Congress specifically designed the cable formula to allocate an appropriate proportionate share of the cost of the entire pole to cable attachers:

Cable would pay its share of not just the costs of...usable space but of the total costs of the entire pole, including the unusable portion (below grade and between minimum clearance levels.) This allocation formula reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs of furnishing the service which has the greater amount of use.³⁰

³⁰ S. Rep. No. 95-580, 95th Cong., 1st Sess. 20 (1977).

36. As cited in the legislative history of the 1978 Pole Attachment Act, a proportionate-use allocation methodology makes sense in the assignment of both the direct and common costs of a facility (i.e., usable and unusable space in the context of a pole):

The renter of one of the ten units pays the cost of that unit plus one-tenth of the cost of all common areas. He does not pay one-half the cost of the common areas just because only one other person occupies the other nine units, but rather he pays his one-tenth share of all the costs attributable to the building.³¹

Indeed, this concept of a cost-causative linkage between the costs of occupancy of common spaces in a facility on the basis of relative use or the direct occupancy of space is a common and widely-accepted practice in the leasing of property and other facilities throughout the private and public sectors of the economy. For example, the same concept that applies to tenants leasing residential apartments described above also applies to condominium ownership (where residents who occupy a 2000 square foot unit are typically assessed a proportionately higher monthly fee to cover costs of common space and expenses than those occupying a 500 square foot unit), malls (where anchor department stores pay proportionately more toward common costs of the mall than a tenant of a small store-front), and airport terminals (where airlines pay fees to the airport authority typically based on the number of gates they occupy, not their mere presence in a terminal).

37. The FCC's allocation of one foot of space is commensurate with cable's small use requirements (which typically is much less than one foot of usable space)³² and the fundamental economic principle of cost causation. Compared with electric utility facilities, cable attachments occupy considerably less space on the pole.

38. For the reasons described above, the maximum pole rental rate derived from the FCC cable formula is an economically appropriate, just and reasonable rate. Accordingly, and as explained more fully in Section IV of this report, the FCC cable formula is the appropriate proportionate-

³¹ 123 Cong. Rec. 5080 (1977) (Statement of Rep. Wirth).

³² "We understand CATV cables are uniformly assigned an effective occupancy space of 1 foot, without regard to their actual 3/4 or 1/2 inch diameter." 72 F.C.C. 2d 59, n. 26.

use allocation methodology to calculate maximum rental rates both prior to the revised RCW 54.04.045 and in the calculation of the 3(a) component of the revised statute.

III. THE MAJOR COMPONENTS OF THE FCC CABLE RATE FORMULA METHODOLOGY

39. Consistent with Section 224(d) of the Communications Act and the principles of cost causation explained above, the FCC cable formula calculates a maximum annual pole attachment rent for cable operators by taking the sum of the actual capital costs and operating expenses of the utility attributable to the entire pole, expressed on an annual basis, and apportioning those costs to the attacher based on the attacher's relative or proportionate use of the pole.

Operationally, the FCC cable formula methodology consists of the following three major components: (1) the net investment per bare pole, (2) a carrying charge factor, and (3) a space allocation factor, i.e., the percent of pole capacity occupied by an attacher. Expressed as an equation, the FCC cable formula is as follows:

FCC Cable Rate Formula Maximum Pole Rental Rate =

[Net Bare Pole Cost] x [Carrying Charge Factor] x [Space Allocation Factor]

Where Space Allocation Factor = Space occupied by attacher / Usable Space on Pole

40. The FCC pole attachment formula relies on the investment and expense data utilities maintain in, or derive from, their accounting books and records. In the case of electric utilities, the FCC relies on uniform accounting data as publically reported in the FERC Form 1 reporting system.³³ Although as a non-profit consumer-owned utility, the District is not required to file Form 1 reports with FERC, it is my understanding from reviewing documents obtained in discovery that the District keeps accounting data consistent with the FERC accounting system.

41. The FCC cable formula is calculated on a "net," not "gross" basis. As explained by the FCC, investment data take two forms: gross data, which provide the original cost of the plant being considered; and net data, which is determined by adjusting the gross data by subtracting

accumulated depreciation and deferred income taxes associated with that plant.³⁴ The pole attachment formula allocates the costs of owning and maintaining poles on the basis of net pole or net plant investment to better reflect the utilities' actual economic consumption and recovery of its plant through depreciation. The FCC has also found that the use of net book costs better prevents the over-recovery of investment.³⁵ The exception to the FCC's use of net figures is in the unusual case where the net investment is zero or negative due because accumulated depreciation (which in addition to the recovery of the original investment includes recovery of the cost of removal) exceeds the original cost of the plant if the cost of removal is very high).³⁶

Components of the FCC cable formula consist of the net bare pole cost, a carrying charge factor consisting of five different expense factors also calculated on the basis of "net" investment data, and a space allocation factor based on the proportion of pole space occupied by an attacher in relation to the total "usable space" on the pole.

Net Bare Pole Cost

42. The first step in calculating the net investment in bare pole cost is to determine the electric utility's actual capital gross pole costs, based on properly booked costs as reported in the utility's books of account in Account 364 ("Poles, Towers and Fixtures"). Account 364 for poles is one of the detailed plant accounts that comprise the utility's primary general ledger Account 101 (Electric Plant in Service).³⁷

43. The next step in determining the utility's net bare pole costs is to take the gross amount booked to Account 364 and subtract accumulated depreciation for pole plant and accumulated deferred taxes applicable to poles. This generates the net investment in pole plant. The FCC cable formula also requires a further reduction (presumed to be 15% in the case of electric

³³ For telephone utilities, the FCC relies on uniform system of accounting information as reported in the FCC's ARMIS database.

³⁴ See *FCC Consolidated Partial Order on Reconsideration ("FCC Recon Order")*, CS Docket 97-98, 97-151, FCC 01-170, May 25, 2001, ¶29.

³⁵ See *FCC Report and Order, In the Matter of Amendment of Rules and Policies Governing Pole Attachments ("FCC Fee Order")*, CS Docket 97-98, FCC 00-116, April 3, 2000, at ¶11.

³⁶ *FCC Recon Order*, at ¶29.

³⁷ See 18 CFR Ch 1, Pt. 101, p. 348, which defines Account 101 as to "include the original cost of electric plant, included in accounts 301 to 399, prescribed herein, owned and used by the utility in its electric utility operations, and having an expectation of life in service of more than one year from date of installation, including such property owned by the utility but held by nominees."

utilities) for “appurtenances,” such as cross-arms, from which communications attachers do not benefit. This generates the net investment in “bare” pole plant.

44. The calculation of accumulated depreciation and accumulated deferred taxes associated with the 364 plant account is described below in the discussion of the next component of the FCC formula, the carrying charge factor. As discussed in the following section of the report containing my rate calculations, because the District as a non-profit entity is not subject to income taxes, it has no reportable accumulated deferred taxes. Therefore, in applying the FCC cable formula to the District, the calculation of net investment for District pole plant (as is the case for aggregate plant accounts) will be calculated by deducting accumulated depreciation alone from gross plant investment.

45. The final step in calculating a net bare pole cost is to divide the net investment in bare pole plant by the total number of poles the utility has in service to derive a per-unit pole cost figure.

Carrying Charge Factor

46. The carrying charge factor (CCF) is used to convert the net cost per bare pole into an annual rental amount. The carrying charge factor is comprised of the sum of five different expense factors - maintenance, depreciation, administrative, taxes, and overall rate of return, expressed as a percentage of expense to net plant in service, consistent with the use of net bare pole cost in the first component of the formula. As described below, the appropriate net plant in service figure to be used in the denominator used to calculate the various elements of the CCF will depend on the level of aggregation with which the relevant expense data used in the numerator of the calculation is tracked in the FERC reporting system or utility books of account. The important principle to follow is one of consistency between the level of aggregation of the expense data and the level of aggregation of the net plant investment figure. The derivation of the five elements of the Carrying Charge Factor (CCF) is as follows:

47. *Administrative:* Expenses relating to this element of the CCF is tracked in the FERC Form 1 at the aggregate level of electric plant in service. Accordingly, for this element, under the FCC formula, the CCF is calculated by taking the relevant expense account figures per FERC Form 1

(Accounts 920-931, 935)³⁸ and dividing them by net plant in service for total electric plant (i.e., gross electric plant less accumulated depreciation less accumulated deferred taxes for total electric plant).

48. *Taxes*: Expenses relating to this element of the CCF is tracked in the FERC Form 1 at the aggregate level of total plant in service. Accordingly, for this element, under the FCC formula, the CCF is calculated by taking the relevant expense account figures per FERC Form 1 (Accounts 408-411³⁹) and dividing them by net utility plant in service (i.e., total gross utility plant less accumulated depreciation less accumulated deferred taxes for total plant). As discussed in the following section of the report containing my rate calculations, because the District as a non-profit entity is not subject to income taxes, substitutions of tax accounts relevant to the District is appropriate in applying the FCC cable formula to calculate a maximum pole rate applicable to the District.

49. *Maintenance*: Expenses relating to this element of the CCF is tracked at a more granular level in Account 593 (“Maintenance of Overhead Lines”), associated with the following three distribution plant in service accounts: Account 364 (“Poles, Towers, and Fixtures”), 365 (“Overhead conductors and devices”) and 369 (“Services”).⁴⁰ Accordingly, the CCF for this element is calculated by dividing the amount of maintenance expense recorded in Account 593 by the net plant in service associated with each of these three individual accounts. In the FERC

³⁸ In reality, there are many costs contained within the identified accounts that are not related to pole attachment, and that the utility should not be allowed to recover from attachers based on fundamental economic principles of cost causation, but are nevertheless included in the FCC formula to minimize the costs of regulation, i.e., so that the FCC does not have to monitor whether the proper costs are “backed out” of a particular FERC or ARMIS account (in the case of a telephone company). These expenses booked to Accounts 920 (administrative and general salaries, including officer salaries), 921 (office supplies and expenses) including telephone and court-related expenses, 923 (outside services employed) including attorney fees and audit expenses, 926 (employee pensions and benefits) including health insurance related expenses, and 930 (miscellaneous general expenses) including general advertising, bank service fees, and association dues.

³⁹ 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.

⁴⁰ Unlike the comparable FCC ARMIS reporting system for telephone utilities, the FERC Account 593 does not separately track pole and line-related maintenance expenses. As a result, Account 593 includes a number of non-pole related expenses that from a cost-based or economic efficiency perspective would be removed if data readily existed to do so.

Form 1, accumulated depreciation is not tracked at the level of detailed plant accounts such as Accounts 364, 365, and 369. Accordingly, under the FCC methodology, accumulated depreciation is prorated to these accounts by multiplying the aggregate accumulated depreciation figure for electric plant by the ratio of gross plant in service for each of the respective individual accounts to gross electric plant. Because the District tracks, and has provided through discovery, information on accumulated depreciation at the individual plant account level for each of these accounts, for greater accuracy and consistency it is appropriate to use the District's booked accumulated depreciation reserves to calculate net investment for Accounts 364, 365, and 369 rather than figures derived using the process of proration when calculating the District's pole rates.

50. *Depreciation:* The CCF for depreciation is based on the FERC-prescribed depreciation rate for pole plant. 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 pole plant by the ratio of gross pole investment (Account 364) to the calculated net pole investment, to determine the depreciation expense.

51. *Overall rate of return:* This component allows the utility to recover a normal or fair (economic) return on capital from third-party attachers over and above actual cost recovery. The FCC methodology uses the most current state authorized rate of return for an investor-owned utility. Where none is available, an FCC default rate of return may be used. As discussed in the following section of the report containing my rate calculations, because the District as a non-profit entity not subject to rate of return regulation, it is necessary and appropriate to substitute an effective "rate of return" based on the District's recorded interest expenses and an imputed return on retained earnings in lieu of an allowed rate of return set by a regulatory commission in applying the FCC cable formula to calculate a maximum pole rate applicable to the District.

Space Allocation Factor (Usage Percentage)

52. As previously described, the FCC cable formula allocates the total costs of the pole in proportion to an attacher's direct use or occupancy of total usable space on the pole. As noted previously, the attacher's pole occupancy is well-established as being 1foot of usable space. For

the FCC's rebuttal assumption of a 37.5 foot pole, total usable space is 13.5 feet such that the presumed usage percentage is $1/13.5$ or 7.41%.⁴¹ It is widely accepted throughout the industry (and confirmed in documents provided by the District in discovery), however, that the standard joint use pole is now 40 feet tall. As illustrated on Figure 2 above, for a 40 foot standard joint use pole, this results in 16 feet of usable space, and 24 feet of unusable space. Therefore, the appropriate space allocation factor usage percentage under the FCC cable formula methodology is $1/16$ or 6.25%.

Calculation of the Maximum Rental Rate

53. Once the three major components are derived in the manner described above, the calculation of the maximum rate under the FCC cable formula is a straightforward multiplication of these individual components: *net bare pole cost times carry charge factor times space allocation factor*. As explained in the next section of the report, the FCC cable formula is the appropriate methodology to use to calculate the just and reasonable rate pursuant to the original version of RCW 54.04.045 and the 3(a) component of the revised statute.

⁴¹ 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).

The FCC cable formula provides the foundation for calculating the FCC telecom formula, with the two differing only in respect to one of the three components of the formula, i.e., the space allocation factor.

54. The FCC cable formula also provides the foundation of the FCC telecom formula, which in my opinion, is the appropriate methodology upon which to base the calculation of the 3(b) component of the revised statute. The FCC telecom formula is calculated in the very same manner as the FCC cable formula, up to the calculation of the space allocation factor. Specifically, the FCC telecom formula is comprised of the same three major components and the first two of these components, i.e., the net bare pole cost and carry charge factor, are exactly the same as the cable formula. The one place where the two formulas differ is in the calculation of the space allocation factor, and in particular, in the manner in which the telecom formula allocates the costs associated with the unusable space on the pole. Whereas the FCC cable formula assigns costs relating to the entire pole -- including both usable and unusable space -- on the basis of a proportionate-use allocator, the FCC telecom methodology assigns the cost of usable space on the pole based on the proportionate share of usable space occupied by the attacher (the exact same as the cable formula) but assigns costs relating to the unusable space on the pole using a per-capita allocator. Specifically, the FCC telecom methodology takes 2/3 of the unusable space on the pole and divides that equally by the number of attaching entities. Expressed as an equation, the FCC cable formula is as follows:

FCC Telecom Rate Formula Maximum Pole Rental Rate =

[Net Bare Pole Cost] x [Carrying Charge Factor] x [Space Allocation Factor]

Where Space Allocation Factor = Usable Space Percentage + Unusable Space Percentage, and

Usable Space Percentage = (Space occupied by attacher / Usable Space) x (Usable Space/Pole Height)

Unusable Space Percentage = 2/3 x (Unusable Space / Pole Height) x (1/Number of Attachers)

55. Interestingly, based on expectations regarding facilities-based competition at the time the Telecom Act was passed and the formula adopted, the rate result produced by the two formulas the differences in the rate result produced by the two formulas would have been relatively close. Indeed, at the time Congress adopted the per-capita methodology for the new telecom rate, there

was every expectation there would be many more new competitive local exchange carrier lines on the poles, and that costs, under the new regime would be shared accordingly among a significantly increased number of entities. In this anticipated scenario, the actual rate result of the new telecom formula could reasonably be expected to converge with the FCC cable rate. In fact, a high number of attaching entities never materialized due to the failure of facilities-based competition to develop as expected and the use of technology that does not rely on an additional attachment for the provision of additional services. As an unintended consequence, the telecom rate results in pole attachment rates significantly higher than the cost-based cable rate.

IV. CALCULATIONS OF PACIFIC COUNTY PUD'S MAXIMUM LAWFUL POLE ATTACHMENT RENTAL RATES PURSUANT TO RCW 54.04.045 FOR THE PRE- AND POST- JUNE 12, 2008 PERIODS

56. The maximum lawful pole rental rate that Pacific County PUD as a “locally regulated utility” in Washington is permitted to charge third-party attachers is governed by RCW 54.04.045. The governing statute was amended in June 2008, impacting the rate methodology to be applied in calculating maximum pole rental rates for the relevant time periods, i.e., pre- and post-June 12, 2008 -- the effective date of the revised statute. To that end, I have calculated two sets of rates using appropriate methodologies pursuant to the original and revised statute respectively. In addition, for each set of rate calculations, I have calculated rates using data from the District’s books of accounts as provided in discovery for the multiple years for which rates are under dispute in this litigation. My rate calculations are provided in Attachment 2 to this report.

57. Both the original and revised versions of the statute apply a “just and reasonable” standard to pole rental rates that locally regulated utilities are permitted to charge third-party attachers. That language, identical in both the original and revised versions of Section 2 of RCW 54.04.045, states “[a]ll rates, terms, and conditions made, demanded or received by a locally regulated utility for attachments to its poles must be just, reasonable, nondiscriminatory and sufficient.” The just and reasonable standard applied in RCW 54.04.045 to locally regulated utilities is the same basic standard applied to investor-owned utilities (IOUs) in Washington in RCW 80.54.020 which states: “[a]ll rates, terms, and conditions made, demanded, or received by any utility be just, fair, reasonable, and sufficient.”

58. It is also important to emphasize that the just and reasonable standard contained in both the Washington state investor-owned utility statute and the locally regulated utility statute are consistent with the just and reasonable standard applied in Section 224 of the Pole Attachment Act.⁴² As noted previously, the majority of states that self-regulate pole attachment, like Washington, utilize the FCC cable rate formula, thereby embracing the just and reasonable standard set forth in Section 224.⁴³

59. Where the original and revised versions of RCW 54.04.045 differ, is that in addition to the basic just and reasonable standard cited above, the revised version of the statute introduces additional guidelines for a cost-based formula to use to calculate a just and reasonable pole rental rate.⁴⁴ Those additional guidelines, presented in Section (3) of the 2008 statute, consist of the following two cost-based components: The first component, as identified in Section (3)(a), reads as follows:

RCW 54.04.045, Section (3)(a): One component of the rate shall consist of the additional costs of procuring and maintaining pole attachments, but may not exceed the actual capital and operating expenses of the local regulated utility attributable to that portion of the pole, duct, or conduit used for the pole attachment, including a share of the required support and clearance space, in proportion to the space used for the pole attachment, as compared to all other uses made of the subject facilities and uses that remain available to the owner or owners of the subject facilities.

The second component, as identified in Section (3)(b), reads as follows:

RCW 54.04.045, Section (3)(b): The other component of the rate shall consist of the additional costs of procuring and maintaining pole attachments, but may not exceed the actual capital and operating expenses of the local regulated utility attributable to the share, expressed in feet, of the required support and clearance space, equally divided among the locally regulated utility and all attaching

⁴²See 47 U.S.C. §224 (b)(1)(“[t]he Commission shall regulate the rates, terms, and conditions for pole attachments to provide that such rates, terms and conditions are just and reasonable”);see also 47 U.S.C. §224(e) (“Such regulations shall ensure that a utility charges just, reasonable, and nondiscriminatory rates for pole attachments.”)

⁴³ See footnote 24 supra.

⁴⁴ See RCW 54.04.045, Historical and Statutory Notes, Intent -2008 c 197. (“To achieve these objectives, the legislature further intends to establish a consistent cost-based formula for calculating pole attachment rates, which will ensure greater predictability and consistency in pole attachment rates statewide, as well as ensure that locally regulated utility customers do not subsidize licensees.”)

licensees, in addition to the space used for the pole attachment, which sum is divided by the height of the pole.

Pursuant to Section (3)(c) of the statute, “[t]he just and reasonable rate shall be computed by adding one-half of the rate component resulting from (a) of this subsection to one-half of the rate component resulting from (b) of this subsection.”

In calculating rates pursuant to the original (pre-June 12, 2008) RCW §54.04.045, I have applied the FCC cable rate formula in determining the just and reasonable rate consistent with sound economic and public policy.

60. As noted above, while the pre-June 12, 2008 version of RCW 54.04.045 does not contain specific guidelines for the cost-based methodology to be used in the calculation of the maximum lawful pole attachment rental rate, the earlier version of the statute contains the just and reasonable standard found in RCW 80.54.020 for IOUs in Washington, and in Section 224 of the Pole Attachment Act with which I am very familiar. Both RCW 80.54.040, which sets forth the specific “criteria for just and reasonable rate[s]” applicable to IOUs in Washington, and Section 224(d)(1) of the federal Pole Attachment Act, which RCW 80.54.040 parallels, define a just and reasonable rate in the same manner.

61. Specifically, both RCW 80.54.040 and the federal Pole Attachment Act permit a range of costs recoverable from attachers – the low end of which are the incremental costs of providing pole attachments (i.e., the costs that would not exist “but for” the attacher), and the high end being a share of the fully allocated cost of attachment (costs pertaining to the entire pole that would exist independent of the presence of the attachment). In addition, both the state and federal statute apportions the costs of the entire pole on the basis of the attaching entity’s proportionate or relative use of the pole.

62. Indeed, in my opinion from an economics and public policy perspective, and as shown below, the language in the two statutes is nearly identical in these two important respects, relating to the overall costs of the pole to be allocated to attachers and the choice of the space allocation factor to be used to attribute those costs, respectively:

RCW 80.54.040 states:

A just and reasonable rate shall assure the utility the recovery of *not less than the additional costs of procuring and maintaining pole attachments, nor more than the actual capital and operating expenses*, including just compensation, of the utility attributable to that portion of the pole, duct, or conduit used for the pole attachment, including a share of the required support and clearance space, *in proportion to the space used for the pole attachment*, as compared to all other uses made of the subject facilities and uses that remain available to the owner or owners of the subject facilities. (Emphasis added).

Section 224(d)(1) of the Pole Attachment Act states:

[A] rate is just and reasonable if it 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, or the percentage of the total duct or conduit capacity, 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, duct, conduit, or right of way. (Emphasis added).

63. Thus, in my opinion from an economics and public policy perspective, and given the strikingly similar language in RCW 80.54.040 and Section 224(d)(1), with respect to both the overall costs of the pole to be allocated to attachers and the space allocation factor to be used, the methodology described in RCW 80.54.040 is effectively the same as the FCC cable formula methodology. Similarly, because there is no specific formula in the rate statute (i.e., the original RCW 54.04.045) governing the District's rates prior to June 12, 2008, other than the same basic just and reasonable standard contained in RCW 80.54.040 and Section 224(d)(1), in my opinion, the appropriate rate formula for calculating a just and reasonable rate for the time period subject to original RCW 54.04.045 is the FCC cable rate formula. My opinion is further informed by the widespread use of the FCC cable rate formula as noted above and my years of experience calculating pole rental rates using this approach.

64. Accordingly, for the period prior to June 12, 2008, for which rates in this litigation are in dispute, I have calculated maximum permissible pole rental rates using the existing FCC cable rate formula, subject to a few necessary substitutions to reflect the nature of non-profit electric

utilities such as the District. For example, I substituted tax accounts applicable to non-profit entities in place of those applicable to IOUs in the calculation of the tax component of the carrying charge factor. In addition, I substituted a “rate of return” based on the District’s recorded interest expenses and an imputed return on retained earnings in lieu of an allowed rate of return set by a regulatory commission. Also, I used the actual accumulated depreciation reserves for accounts 364 (“Poles, Towers, and Fixtures”), 365 (“Overhead conductors and devices”) and 369 (“Services”) that were provided by the District in discovery where net investment figures are utilized in the formula. My calculations of the pre-June 12, 2008 just and reasonable rate (as well as the post-June 12 2008 rate) also use a standard 40 foot pole, as confirmed in data provided by the District in discovery, rather than the FCC’s presumptive (but rebuttable) 37.5 foot pole. As previously explained, the use of a standard 40 foot pole under the FCC methodology results in a space allocation factor of 6.25%⁴⁵

65. As explained in the previous section of this report, to calculate a rate under the FCC rate formula, you simply multiply the *net bare cost of a pole* times an *annual carrying charge factor* times a *space allocation factor*. Consistent with the FCC methodology which relies on year-end data from the prior year, the rate calculated using year-end 2006 data applies to third-party pole rent for 2007, and the rate calculated using year-end 2007 data applies to third-party pole rent for the period January 1, 2008 through June 12, 2008 (after which the methodology pursuant to the revised RCW 54.04.045 applies).

66. As summarized in Table 1 below, using year-end 2006 data, I calculate a maximum rate for 2007 of \$4.78, by deriving and multiplying a net bare pole cost of \$181.49 times a carrying charge factor of 42.1% times the space factor of 6.25%. Similarly, using year-end 2007 data, I calculate a maximum rate for that period of 2008 (i.e., prior to June 12, 2008) for which the original statute applies of \$4.71, by deriving and multiplying a net bare pole cost of \$173.44 times a carrying charge factor of 43.4% times the space factor of 6.25%.

⁴⁵ One foot attacher-occupied space divided by sixteen feet of total usable space = 6.25% (see also Figure 2, Section I of this report).

Table 1 Maximum Pole Rental Rates Pursuant to RCW 54.04.045 for Pre-June 12, 2008 Period		
Based on Twelve Months Ending December 31,	2006	2007
Net Investment Per Bare Pole	\$181.49	\$173.44
x Carrying Charges	42.1%	43.4%
x Space Factor [1/16' usable pole]	6.25%	6.25%
Maximum Pole Rental Rate*	\$4.78	\$4.71
*Calculated using FCC cable formula and data provided by the PUD.		

In calculating rates pursuant to the revised (post-June 12, 2008) RCW 54.04.045, I have applied the FCC cable rate formula for the 3(a) component and a modified FCC telecom rate formula for the 3(b) component, in determining the just and reasonable rate consistent with sound economic and public policy.

67. As described above, the revised version of RCW 54.04.045 provides specific guidelines for the cost-based formula to be used in the calculation of the maximum pole rental rate. The guidelines specify the use of two different methodologies – as set forth in Section 3(a) and 3(b) of the statute -- with the ultimate rate determined by adding together one half of each these two components as directed in Section 3(c). While the revised statute does not provide the actual formulaic expression or detailed list of expense accounts to be included in the calculation of either the 3(a) or 3(b) components of the rate, in my opinion as an economist with experience in determining just and reasonable utility rates, the language in the revised RCW 54.04.045 is virtually identical to the language that governs rates for investor-owned utilities in Washington, which in turn is like the language in Section 224(d) of the Communications Act. The only difference between the revised RCW 54.04.045 and RCW 80. 54.040 for IOUs, is in the latter half of 3(b), which as discussed below, identifies a different space allocation factor be used to apportion the costs associated with unusable space on the pole to attachers. As mentioned previously, it is important not to confuse the overall costs of the pole that are to be attributed to attachers with the choice of space allocator factor to be used to make that attribution.

Overall Pole Costs to be Allocated in Both 3(a) and 3(b)

68. With regard to the overall costs of the utility pole to be attributed to attachers, both the 3(a) and 3(b) components of the revised RCW 54.04.045 require a rate that allows utilities to recover “the additional costs of procuring and maintaining pole attachments but may not exceed the actual capital and operating expenses of the local regulated utility attributable” to the attacher in accordance with the space allocator identified in the respective subsections of the statute. Thus, in my opinion as an economist with experience in determining just and reasonable utility rates, the *overall costs of the pole* to be allocated in 3(a) and 3(b) are exactly the same. Moreover, as pointed out earlier, this is basically the same exact language contained in RCW 80.54.040, governing the recovery of pole costs for investor-owned utilities.⁴⁶ Because the locally regulated utility statute requires cost recovery of the same overall costs of the pole as the IOU statute, and this in turn is the same as the federal Pole Attachment statute governing the FCC pole rate formula in this key respect, I am using the same overall costs of the pole to calculate both the 3(a) and 3(b) components pursuant to RCW 54.04.045 as used in the FCC formula methodology. My opinion is further informed by the widespread acceptance of the FCC cable rate formula and my years of experience calculating pole rental rates using this approach.

Space Allocator in 3(a)

With regard to the 3(a) space allocator, the revised statute specifically directs that the overall pole costs discussed above be allocated based on “that portion of the pole... used for the pole attachment, including a share of the required support and clearance space, *in proportion to the space used for the pole attachment.*” Again, in my opinion as an economist with experience in determining just and reasonable utility rates, this language is identical to the pole cost allocator in the IOU statute⁴⁷ and significantly tracks the methodology used to allocate costs under the FCC cable formula pursuant to Section 224(d) of the Communications Act which allocates both usable and unusable space (including support and clearance space) in proportion to the space

⁴⁶ See RCW 80.54.040. (“A just and reasonable rate shall assure the utility the recovery of not less than the additional costs of procuring and maintaining pole attachments, nor more than the actual capital and operating expenses, including just compensation, of the utility attributable...”)

⁴⁷ See RCW 80.54.040 directing recovery of those costs of the utility “attributable to that portion of the pole... used for the pole attachment, including a share of the required support and clearance space, in proportion to the space used for the pole attachment”.

used by the attachment.⁴⁸ Accordingly, I calculate the space allocator used in the 3(a) component using the same proportionate-use method utilized in the FCC cable methodology.

Space Allocator in 3(b)

69. With regard to the 3(b) space allocator, the revised statute specifically directs that “in addition to the space used for the pole attachment” (i.e., the one foot of space used by the communications attacher) that the pole costs “be attributable to the share, expressed in feet, of the required support and clearance space [i.e., unusable space], equally divided among the locally regulated utility and all attaching licensees.” This bifurcated approach, which applies a proportionate or relative-use method for allocating the costs of usable space, and a per-capita method for allocating costs of unusable space (i.e., by dividing the space according to the number of attachers), is in my opinion as an economist with experience in determining just and reasonable utility rates the same methodology used in the FCC’s telecom rate methodology as set forth in Section 224(e) of the Communications Act.⁴⁹

70. The only difference between the FCC telecom rate methodology and the way that unusable space is allocated in 3(b) is that the FCC telecom formula, as directed in Section 224(e)(3) and described previously in this report, divides only 2/3 of the unusable space equally between the utility and attachers, whereas 3(b) divides the totality of unusable space among attachers. Accordingly, in calculating the 3(b) component of the rate, I calculate that rate in the same manner as the FCC telecom methodology, using a space allocator factor which assigns the cost of usable space on the pole on a proportionate use basis and the cost of unusable space on the pole on a per-capita basis, subject to the one modification described above (i.e. the two-third multiplier is not applied in the calculation of the 3(b) rate component). The FCC telecom rate

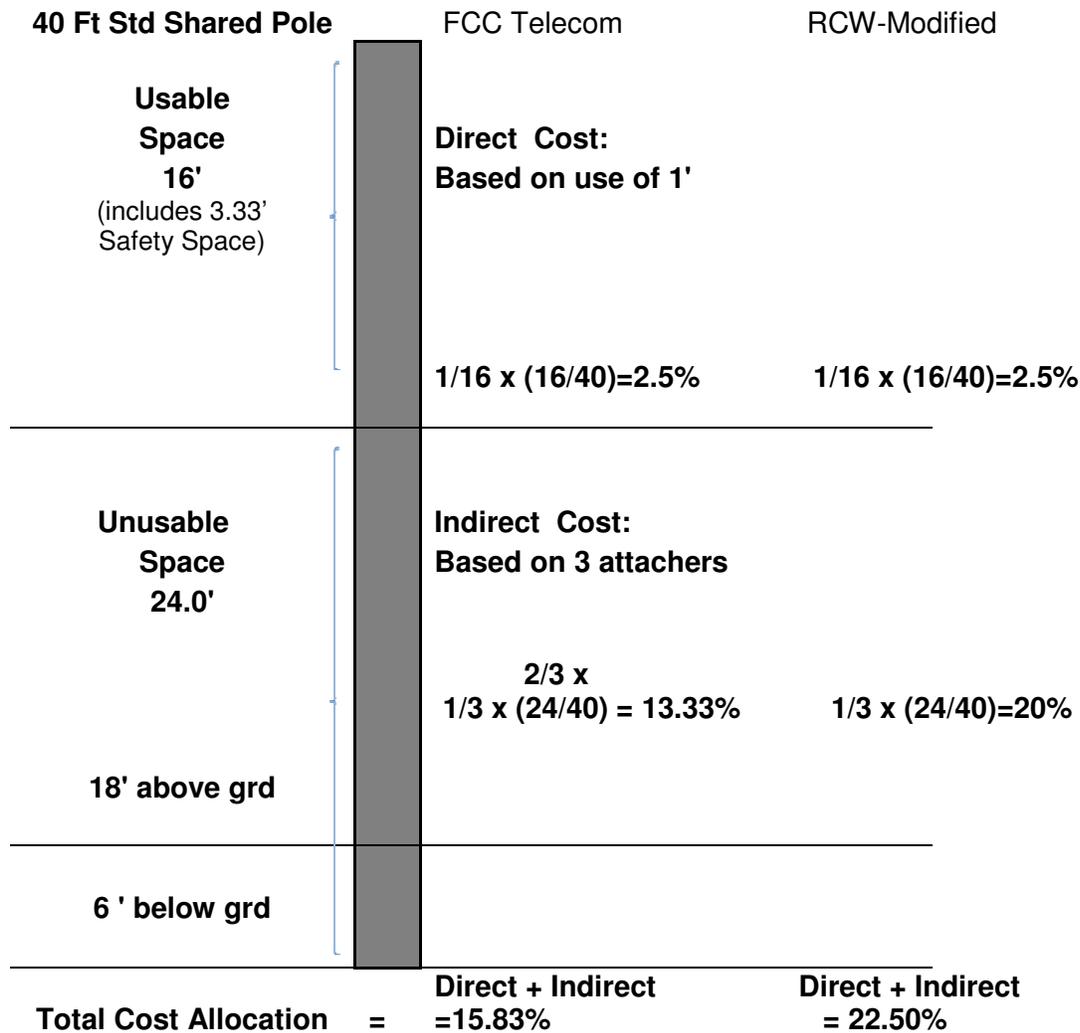
⁴⁸ See 47 U.S.C. §224 (d)(1), which directs the just and reasonable rate is to be “determined by multiplying *the percentage of the total usable space...*, which is *occupied by the pole attachment*” by the overall costs of the pole to be recovered pursuant to the statute.

⁴⁹ See 47 U.S.C. §224 (e)(2) (“A utility shall apportion the cost of providing space on a pole, duct, conduit, or right of way other than usable space among entities so that such apportionment equals two-thirds of the costs of providing space other than the usable space that would be allocated to such entity under an equal apportionment of such costs among all attaching entities.”); and 47 U.S.C. §224 (e)(3) (“A utility shall apportion the cost of providing usable space among all entities according to the percentage of usable space required for each entity.”)

methodology is illustrated in Figure 3 below based on a standard 40 foot joint pole and three attaching entities⁵⁰

Figure 3

Allocation of Total Pole Costs under FCC and RCW-Modified Telecom Formula



71. As shown in Figure 3, the FCC’s telecom formula allocates a total of 15.83% of the overall costs of the pole to an attacher. Once the one modification to the FCC telecom formula as

⁵⁰The assumption of three attaching entities is consistent with the FCC presumption for rural areas and corroborated by an independent audit conducted by Charter (see Bates-numbered document CHA 357).

directed by Section 3(b) of RCW 54.04.045 is made (i.e., the 2/3 multiplier not applied to unusable space), the resulting allocation percentage of overall pole costs increases to 22.50%.

Calculation of the 3(a) and 3(b) Components of the Just and Reasonable Rate

72. Having determined the appropriate overall pole costs to be allocated and the appropriate space allocation factors for 3(a) and 3(b), respectively, following the well-established FCC methodology, the calculation of the rate components themselves is a straightforward process. As explained in the previous section of this report, to calculate a rate under the FCC methodology, you simply multiply the *net bare cost of a pole* times an *annual carrying charge factor* times a *space allocation factor*. With respect to the calculation of the 3(a) and 3(b) components of the just and reasonable rate, the process is especially straightforward in that, as described above, the 3(a) and 3(b) formula calculations differ with respect to only one of the three major components of the FCC methodology, i.e., the space allocation factor.

73. My calculations of the 3(a) and 3(b) components of the just and reasonable rate are summarized in Table 2 below. As show in Table 2, based on year-end 2007 data, I calculate a net bare pole cost of \$173.44 and a carrying charge factor of 43.4%. Based on year-end 2008 data, I calculate a net bare pole cost of \$170.21 and a carrying charge factor of 45.89%. As explained above, the appropriate space allocation factor for the 3(a) component of the just and reasonable rate pursuant to RCW 54.04.045 is 6.25%, whereas the appropriate space allocation factor for the 3(b) component pursuant to RCW 54.04.045 is 22.5%. Accordingly, using year-end data for 2007, I calculate a 3(a) rate for 2008 of \$4.71 (by multiplying a net bare pole cost of \$173.44 times a carrying charge factor of 43.4% times the space factor of 6.25%) and a 3(b) rate of \$16.96 (by multiplying a net bare pole cost of \$173.44 times a carrying charge factor of 43.4% times the space factor of 22.50%). Similarly, using year-end data for 2008, I calculate a 3(a) rate for 2008 of \$4.88 (by multiplying a net bare pole cost of \$170.21 times a carrying charge factor of 45.89% times the space factor of 6.25%) and a 3(b) rate of \$17.58 (by multiplying a net bare pole cost of \$170.21 times a carrying charge factor of 45.89% times the space factor of 22.50%).

Calculation of the 3(c) Maximum Permissible Just and Reasonable Rate

74. The maximum permissible just and reasonable rate as identified in Section 3(c) of RCW 54.04.045, as noted previously, is calculated simply by taking one half of the 3(a) component and one half of 3(b). As described previously, under the FCC methodology, the maximum rate calculated using year-end 2007 data applies to third-party pole rental charges for the period June 12, 2008 to December 31, 2008 (i.e., the part of 2008 during which the revised statute was in effect), and the maximum rate calculated using year-end 2008 data applies to third-party pole rental charges for 2009. As summarized in Table 2, the resulting maximum permissible pole attachment rental rates pursuant to RCW 54.04.045 are \$10.83 for the period June 12, 2008 to December 31, 2008 and \$11.23 for 2009.

Table 2 Maximum Pole Rental Rates for Post-June 12, 2008 Period		
Based on Twelve Months Ending December 31,	2007	2008
Net Investment Per Bare Pole	\$173.44	\$170.21
x Carrying Charges	43.4%	45.89%
x Space Factor [1/16' usable pole]	6.25%	6.25%
= Maximum 3(a) Component	\$4.71	\$4.88
Net Investment Per Bare Pole	\$173.44	\$170.21
x Carrying Charges	43.4%	45.89%
x Space Factor [(1+24/3)/40' = 9/40' total pole]	22.50%	22.50%
= Maximum 3(b) Component	\$16.96	\$17.58
= Maximum 3(c) Rate = 1/2 3(a) + 1/2 3(b)	\$10.83	\$11.23

75. In my opinion, rates set higher than the maximum rates I have derived in the above-described manner for the pre- and post-June 12, 2008 periods, respectively, would be inconsistent from an economics and public policy perspective with the just and reasonable standard of RCW

54.04.045. In addition, rates higher than these would fail to serve the ultimate purposes of effective pole rate regulation, which historically has been, and continues to be, about protecting cable operators and other third-party attachers against monopoly abuses of pole-owning utilities, including charging rental rates for pole attachments that far exceed levels in line with those a competitively-functioning market for poles would produce, especially when make ready charges imposed by utilities for any up front out-of-pocket costs they might incur in connection with hosting a third-party pole attachment are taken into account.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: September __, 2009

Patricia D. Kravtin

Kravtin 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 public 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-Term 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 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.

“Multi-product Transportation Cost Functions,” MIT Working Paper, September 1982.

Record of Prior Testimony

2009

Before the **Public Utilities Commission of Ohio**, *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates, Case No. 08-709-EL-AIR, In the Matter of the Application of Duke Energy Ohio, Inc., for a Tariff Approval, Case No. 08-710-EL-ATA, In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods, Case No. 08-11-EL-AAM, In the Matter of the Application of Cincinnati Gas & Electric Company for Approval of its Rider BDP, Backup Delivery Point, Case No. 06-718-EL-ATA*, filed February 26, 2009.

2008

Before the **Arkansas Public Service Commission**, *In the Matter of a Rulemaking Proceeding to Establish Pole Attachment Rules In Accordance With Act 740 of 2007*, Docket No. 08-073-R, filed May 13, 2008, reply filed June 3, 2008, Cross-examination June 10, 2008.

Before the **Federal Communications Commission**, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303, filed March 7, 2008, reply filed April 22, 2008.

2006

Before the **State of New Jersey Board of Public Utilities**, Office of Administrative Law, *in the Matter of 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, filed September 29, 2006; rebuttal filed November 17, 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

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*, Case 02-M-1636, 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.

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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 § 39.201 and 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.

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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).

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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.

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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.

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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

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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.

1987

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.

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1986-1982

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

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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.

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.

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.

**REPLY REPORT OF
PATRICIA D. KRAVTIN**

Submitted:

*IN THE SUPERIOR COURT
OF THE STATE OF WASHINGTON
FOR THE COUNTY OF PACIFIC
CASE NO. 07-2-00484-1
PACIFIC UTILITY DISTRICT NO. 2 OF PACIFIC COUNTY,
Plaintiff, v.
COMCAST OF WASHINGTON IV, INC.,
CENTURYTEL OF WASHINGTON, INC., and
FALCON COMMUNITY VENTURES I, L.P.
d/b/a CHARTER COMMUNICATIONS,
Defendants*

October 16, 2009

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1: Rate Calculations for Pre- and Post-June 12, 2008 with Adjusted Maintenance Factor

INTRODUCTION AND SUMMARY

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. On September 18, 2009, I submitted a Report on behalf of Defendants Comcast and Charter (Initial Report) to address matters raised in the litigation, Pacific Utility District No. 2 of Pacific County, v. Comcast Of Washington IV, Inc., CenturyTel of Washington, Inc., and Falcon Community Ventures I, L.P. D/B/A Charter Communications concerning the appropriate rate methodology for calculating maximum lawful pole rental rates applicable to Pacific Utility District (PUD), pursuant to RCW 54.04.045. A detailed resume summarizing my educational background and experience was provided in Attachment 1 to my Initial Report. As part of my assignment on behalf of the Defendants, I was also asked to review the other expert reports submitted in this proceeding, namely the Report of Gary E. Saleba submitted on behalf of the PUD (Saleba Report) and the Report of Mark A. Simonson submitted on behalf of CenturyTel (Simonson Report), and to prepare a reply report.

3. This Reply Report is organized into the following five sections each addressing major areas of disagreement with the Saleba Report as summarized below:
 - *Section I* addresses the general disconnect between the conclusions reached in the Saleba Report and the fundamental economic principles of cost causation underlying effective pole rate regulation, as well as Mr. Saleba's apparent disregard for the proper role of regulation in preventing utility pole owners from exploiting their monopoly control over essential pole facilities to the detriment of competition and the greater public good;

 - *Section II* addresses the numerous fallacies in the Saleba Report underlying the wholly unsupported and erroneous conclusion that the American Public Power

Association (APPA) methodology is the appropriate methodology to use in calculating pole rental rates for the period prior to June 12, 2008 (i.e., pursuant to the original RCW 54.04.045), rather than the Federal Communications Commission (FCC) cable rate methodology as recommended in my Initial Report;

- *Section III* addresses the fundamental misunderstandings articulated in the Saleba Report regarding the FCC cable rate methodology and the rates derived using that methodology, including the totally unsubstantiated and false assertions that the FCC cable rate methodology is an incremental cost methodology, that the FCC cable rate is a subsidized rate, and that the FCC cable rate “specifically excludes any unusable space, such as the support and clearance space;”
- *Section IV* addresses the unsupported interpretations contained in the Saleba Report regarding amended RCW 54.04.045 governing the calculation of pole rental rates for the post-June 12, 2008 time period, and the resulting erroneous conclusions Mr. Saleba reaches as to the appropriate rate methodologies to use for that period;
- *Section V* addresses a number of specific problems with the rate methodology and calculations presented in the Saleba Report, including those relating to the “updates” of the previous study he performed for the PUD. As shown in this Reply Report, these updates, and the data underlying them, appear primarily results-driven. In my opinion as an economist with experience in determining just and reasonable pole attachment rates, Mr. Saleba’s updates appear designed to produce excessive monopoly pole rates that are not just and reasonable; and
- *Section VI* presents revised calculations of the appropriate maximum pole rental rates applicable to the pre-and post June 12, 2008 time periods, that reflect an adjustment to the maintenance expense element of the carrying charge factor consistent with economic cost causation principles. In particular, the adjustment removes maintenance costs related to transmission poles that were apparently booked by the PUD to a FERC account specifically designated for distribution pole-related maintenance costs only (Account 593).

I. THE SALEBA REPORT LACKS ECONOMIC FOUNDATION AND FAILS TO RECOGNIZE THE ECONOMIC REALITY OF POLES AS A SHARED RESOURCE

The Saleba Report Disregards Fundamental Economic Principles of Cost Causation, the Structural Characteristic of Poles as Essential Facilities, and the Proper Role of Pole Regulation in Curbing the Pole Owner’s Ability to Impose Monopoly Rents.

4. In its introductory discussion of the “Industry Standard for Rate Setting for Pole Attachment Rates,” the Saleba Report acknowledges “[t]he basic theories behind utility rate setting are founded in economic literature,” and correctly notes that “[e]conomic theory dictates that the price of a commodity must roughly equal its costs, if economic efficiency is to be achieved.”¹ The Saleba Report goes on to list a number of principles “used by the electric utility industry in setting rates,” including “[r]ates should reflect cost causation principles, i.e., the allocation of costs should be based on the cause of that expense item.”² Notwithstanding these introductory acknowledgments of guiding economic principles, the opinions expressed in the Saleba Report give little if any regard to either the fundamental economic principles of cost causation or to the underlying structural economic characteristics of the market for poles. Rather, the opinions expressed in the Saleba Report are largely conclusory, void of substantive economic reasoning, and put the pecuniary interests of the monopoly pole-owning utility ahead of sound economic and public policy objectives, including those related to setting just and reasonable pole rents.

5. As explained in my Initial Report, utility poles are essential bottleneck facilities to which cable operators and other third-parties need to attach for various economic, aesthetic, and public policy reasons.³ As further explained, in the absence of effective pole rate regulation, utility pole owners will leverage their monopoly control over this strategic asset (e.g., in the form of monopoly rent) to the detriment of competition and the greater public good.⁴ Moreover, as I also discussed, now that pole owners (including the

¹ Saleba Report at 3.

² Id. at 4.

³ Id. at 4-5.

⁴ Id. at 13-14.

PUD) directly compete with attachers, it is more important than ever that the rental rates utilities are allowed to charge third-party attachers be kept to levels more in line to what a competitively-functioning market (if one existed, which it does not for poles) would produce.⁵

6. By contrast, the conclusions set forth in the Saleba Report appear to have been reached without meaningfully considering any relevant economic or public policy concepts underlying the setting of just and reasonable pole attachment rates. For example, as discussed in Section II below, Mr. Saleba concludes without basis that since the PUD is not regulated by the FCC and absent specific formulaic state guidelines (such as existed before RCW 54.04.045 was amended), the PUD is free to rely on a methodology that has never been sanctioned by any government agency, namely the APPA formula, to set rates for the pre-June 12, 2008 period.⁶ In fact, the APPA methodology was created by and for unregulated utilities, such as the PUD, and in my opinion, was designed to maximize revenues rather than set just and reasonable rates.

7. While it is true that the PUD is not subject to FCC regulation, it is nevertheless required by Washington statute to charge just and reasonable rates. The mere fact that the PUD is a non-profit, consumer-owned utility rather than an investor-owned utility (IOU) regulated by the FCC, does not in any way alter the fundamental economic conditions of demand and supply that affect the setting of just and reasonable pole rates for poles owned on a monopoly-basis by the PUD. Nor does it affect the ability of the PUD to leverage its monopoly ownership of poles in the very same manner as their investor-owned counterparts.⁷

8. Indeed, the same basic economic principles I discuss in my Initial Report that apply when setting just and reasonable pole rates for an investor-owned utility apply equally to a non-profit utility, such as the PUD, which also has monopoly ownership and control of essential pole facilities. In particular, so long as the pole attachment rate charged to the third-party attacher covers at least the additional or incremental cost of the pole

⁵ Id. at 7-9.

⁶ Saleba Report at 3.

⁷ Kravtin Initial Report at 6.

attachment, than neither the utility, its electric customers, or any of the other entities sharing the pole will bear a higher cost (i.e., be worse off) as a result of an additional third party attachment. In fact, under these conditions, society as a whole is better off from the shared occupancy of otherwise available and unused space on existing utility poles at efficient, cost-based rates (which the FCC cable formula more than provides).⁸

The Saleba Report Reflects the Incorrect Notion that Pole Rate Regulation is about Maximizing Contribution to the Utility's Revenue Requirement Rather than Limiting Pole Rents to More Competitive Levels for the Greater Public Good

9. In a most superficial fashion that belies sound economic and public policy analysis, Mr. Saleba's opinions appear based on the (incorrect) notion that rate setting for pole attachments is no different than rate setting for retail electric customers (although it is hard to believe the PUD would subject retail electric customers to rate increases of up to 243% in a two year period, such as proposed to the defendants,⁹ or that Mr. Saleba could consider rate increases of this magnitude to satisfy the rate stability principle included in his list of rate-setting principles).¹⁰ While utilities often try to equate rate setting for retail electric customers with rate setting for pole attachments to justify substantial increases in pole attachment rates, such attempts are completely at odds with the fundamental economic cost-causation principles underlying pole rate regulation.

10. According to basic cost-causation economic principles, costs directly associated with the utilities' provision of its core electric business (i.e., costs that would exist *even in the absence of third-party attachments*) are properly recoverable from utility ratepayers for whom that plant was primarily built to serve, and *not* from third-party attachers.¹¹ As I previously explained in my Initial Report:

⁸ Id. at 9-11.

⁹ The District seeks to increase pole rental rates from \$5.75 to \$13.75 for 2007, increasing to \$19.70 afterwards, which represent increases of 139% and 243% respectively.

¹⁰ See Saleba Report at 4 ("Rates should be stable, to meet a customer's expectations, and should be sufficient to provide adequate revenues to meet the utility's financial requirements.")

¹¹ See *FCC Consolidated Partial Order on Reconsideration ("FCC Recon Order")*, CS Docket 97-98, 97-151, FCC 01-170, May 25, 2001, ¶122. ("The attacher is paying to attach a cable to the pole. The Pole Attachment Act requires the attacher to pay a portion of the capital costs attributable to the pole. Those costs are fully captured in Account 364. The accounts suggested by petitioners include capital expenditures which support the utility's core business function and are not related to the pole costs.")

[T]he purpose of pole rate regulation has decidedly *not* been about maximizing third-party contribution to the revenue requirement for the utility's core electric services (which is properly recoverable from the utility's ratepayers for whom the pole network was built and maintained), but rather to *limit* the rents that utilities are permitted to charge third-party attachers to levels more in line with what a competitively-functioning market for poles (if one existed, which it does not) would produce.¹²

11. Moreover, the superficiality of Mr. Saleba's argument that setting higher pole rates would result in lower electric retail rates is apparent given the minimal economic impact, if any, that pole rate increases would have on the utility's revenue requirement. Indeed, over the course of the many pole proceedings in which I have been involved, I have never seen one utility demonstrate the process by which electric customers would receive an actual benefit if pole rates from attachers increase. In any event, absent regular full-blown rate cases that would delve into the utility's records of accounting at a level of granularity as to be able to trace back an increase in pole rental revenues to a reduction in retail rates, any claim that increased pole rents would result in lower electric rates is highly suspect and unsupported. Even if it was possible to trace an increase in pole rental revenues to a reduction in retail rates, as noted above, the impact would be minimal, given the relatively small magnitude of pole rental revenues vis-a-vis the utility's electric revenues.¹³

12. Given the minimal impact on retail electric customers, if any, of an increase in pole attachment rates relative to the substantial (and economically unjustified) negative impact on attachers, the revenue requirement approach advanced by Mr. Saleba would serve only the pecuniary and anticompetitive interests of the utility, and not its customers. By contrast, following an economic cost-causation approach using the FCC cable formula, as I have recommended, will ensure just and reasonable rates, along with the widespread deployment of advanced services and the efficient use of societal resources for the greater public good.

¹² Initial Report at 7.

¹³ See Bates-numbered document PUD 6929 containing email correspondence between PUD and WPUDA personnel. ("For 2006, Pacific County PUD's total operating revenue was \$20,028,038. Of that, Pole Attachment Revenue was \$60,863 or 3/10th of 1%."). The correspondence also contrasts the large number of electric customers (over 16,000) relative to the small number of attachers (5).

II. THE SALEBA REPORT CONCLUDES WITHOUT ECONOMIC OR PUBLIC POLICY JUSTIFICATION THAT THE APPA METHODOLOGY IS APPROPRIATE FOR CALCULATING POLE RATES FOR THE PRE-JUNE 12, 2008 TIME PERIOD, RATHER THAN THE WIDELY-USED AND ECONOMICALLY APPROPRIATE FCC CABLE RATE

13. Consistent with the goal to maximize revenues, rather than set “just and reasonable rates,” Mr. Saleba concludes without basis that the PUD’s pre-June 12, 2008 pole rates should be calculated using the APPA formula¹⁴ rather than the widely used FCC cable formula.¹⁵ In my opinion, there is no economic or public policy basis for justifying the use of the APPA formula. Indeed, despite Mr. Saleba’s claim that the APPA formula has been “vetted” by regulators, I am aware of no public utility commission that has ever officially sanctioned the use of the APPA formula for setting pole rates. Rather, Mr. Saleba’s advancement of the APPA formula appears predicated on the following conclusory statements:

The APPA is a non-profit organization whose members are publicly-owned utilities in the United States. WPUDA’s [Washington PUD Association] members are public utility districts in the Washington State. Given that the PUD is not governed by the FCC, the rate-setting methodologies endorsed by the APPA and by the WPUD serve as the basis and guidance for the PUD to calculate just, reasonable, nondiscriminatory, and sufficient rates.

Absent contrary statutory mandates, the APPA methodology is the appropriate methodology for calculating just, reasonable, nondiscriminatory and sufficient pole attachment rates, as it was created specifically for use by PUDs and other public utilities.”¹⁶

14. While I do not dispute that the fact that the APPA and WPUDA have developed pole rate methodologies for their members, that does mean that either of those approaches is appropriate for setting just and reasonable pole rates for the pre-June 12, 2008 time period, pursuant to the original RCW 54.04.045. Indeed, the APPA and WPUDA are special interest groups focused on their own members’ interests. The APPA, for example, is a special interest group whose members are publicly-owned, unregulated electric

¹⁴ Saleba Report at 4.

¹⁵ See Initial Report at 14, footnote 24 (“The FCC formula is applied directly by the FCC in 30 states, and of the 21 states (including the District of Columbia) that have certified to self-regulate pole attachment rates, the majority (approximately 16) use a formula that closely (or precisely) tracks the FCC formula.”).

¹⁶ Saleba Report at 4.

utilities, and whose stated purpose is “to promote the mutual improvement and common purposes of the public power sector of the electric utility industry.”¹⁷ This fact alone is a compelling argument *against* the use of the APPA methodology in setting just and reasonable pole attachment rates under RCW 54.04.045, not an argument *for* its use, as Mr. Saleba would suggest. In my opinion, as an economist with experience in determining just and reasonable utility rates, the APPA formula is designed to maximize revenues, not produce just and reasonable rates. Moreover, based on my experience in this field, unless constrained by regulation or other such limitations, a utility (or group of utilities) will seek to leverage their ownership and monopoly control over essential pole facilities in order to extract excessive pole rates, such as those produced by the APPA formula. It is simply not in the self interest of the utility (especially a utility that competes directly with an attacher in need of pole space) to charge a just and reasonable rate unless required to do so.

15. Indeed, as I explained in my Initial Report,¹⁸ just and reasonable pole attachment rates can only be achieved through effective regulatory intervention based on well-established economic cost-causation allocation principles that balance the interest of the utility, third-party attachers, and consumers (who benefit from a competitive telecommunications market and the deployment of new advanced broadband services and technologies). The APPA formula, on the other hand, is a formula developed by a special interest group to serve the purposes of its own members. Allowing the PUD to use the APPA formula to set pre-June 12, 2008 pole rates would be tantamount to allowing the utilities to set monopoly rates unilaterally rather than just and reasonable rate, as required by RCW 54.04.045.

16. As I explained in my Initial Report, in my opinion as an economist with experience in determining just and reasonable pole rates, the PUD’s pole attachment rate prior to June 12, 2008 should be set using the FCC cable rate formula. For example, while the original version of RCW 54.04.045 governing pole attachment rental rates for this time period does not contain specific guidelines for calculating pole rates, the pre-June 12, 2008 version of the statute nevertheless contains the same just and reasonable standard found

¹⁷ APPA Bylaws, Section 1.2 “Purposes.”

¹⁸ Initial Report at 6-7.

in RCW 80.54.040 for IOUs in Washington,¹⁹ and in Section 224 of the Communications Act,²⁰ with which I am very familiar. Specifically, as I explained in my Initial Report:

[B]oth RCW 80.54.040 and the federal Pole Attachment Act permit a range of costs recoverable from attachers – the low end of which are the incremental costs of providing pole attachments (i.e., the costs that would not exist “but for” the attacher), and the high end being a share of the fully allocated cost of attachment (costs pertaining to the entire pole that would exist independent of the presence of the attachment). In addition, both the state and federal statute apportion the costs of the entire pole on the basis of the attaching entity’s proportionate or relative use of the pole.²¹

17. The nearly identical language in the two statutes (i.e., RCW 80.54.040 and Section 224 of the Communications Act) with respect to these two predominant economic features of the formula methodology (i.e., the overall costs of the pole to be allocated to attachers and the choice of the space allocation factor to be used to attribute those costs) makes it both logical and economically justified to conclude that the methodology described in RCW 80.54.040 is effectively the same as the FCC cable formula methodology. This conclusion is also corroborated in the Simonson Report. Based on Mr. Simonson’s specific experience working with IOUs in Washington, he concludes “that it is industry practice for Investor Owned Utilities within the State of Washington to utilize the CATV pole attachment formula when determining pole attachment rates.”²² Accordingly, because the original RCW 54.04.045 governing the PUD’s rates prior to June 12, 2008 contains the same basic just and reasonable standard as in RCW 80.54.040 and Section 224(d)(1), it is logical and economically justified to conclude that the same formula applied to IOUs governed by RCW 80.54.040 and Section 224 of the Communications Act also applies to PUDs governed by RCW 54.04.045 for the period prior to June 12, 2008.

¹⁹ See RCW 80.54.040 (“A just and reasonable rate shall assure the utility the recovery of not less than the additional costs of procuring and maintaining pole attachments, nor more than the actual capital and operating expenses, including just compensation, of the utility attributable to that portion of the pole, duct, or conduit used for the pole attachment, including a share of the required support and clearance space, in proportion to the space used for the pole attachment, as compared to all other uses made of the subject facilities and uses that remain available to the owner or owners of the subject facilities.”)

²⁰ See Section 224(d)(1) of the Pole Attachment Act. (“A rate is just and reasonable if it 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, or the percentage of the total duct or conduit capacity, 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, duct, conduit, or right of way.”)

²¹ Initial Report at 29, footnotes omitted.

18. By contrast, the APPA methodology which Mr. Saleba endorses on the grounds it was developed by the industry association specifically for publicly-owned utilities like the PUD, differs with respect to *both* the two predominant economic features of the formula methodology (i.e., the overall costs of the pole to be allocated to attachers and the choice of the space allocation factor to be used to attribute those costs). Specifically, the APPA formula is based on a different set of overall costs than the FCC formula (e.g., a gross versus net calculation). The APPA formula also uses a different method of calculating the space allocation factor (i.e., use of a per capita versus proportionate share allocator). Accordingly, Mr. Saleba's opinion that the APPA formula is the appropriate rate methodology is neither logical nor economically justified.

19. Similarly, Mr. Saleba's characterization of the APPA formula as "the generally accepted method for calculating pole attachment rates for publicly-owned utilities" and his assertion that "APPA's leadership in setting prudent policy for publicly-owned utilities, like the PUD, is well recognized"²³ are very misleading statements, based on my experience with pole rate regulation. The acceptance of the APPA formula and the recognition of APPA leadership in this area are generally limited to within the membership of the APPA and other unregulated utilities.

20. The FCC formula methodology, on the other hand, has withstood the test of time as an economically appropriate, cost-based formula for determining just and reasonable pole rental rates. Indeed, the FCC cable rate formula is used by the vast majority of states, including those self-regulating states tasked with setting just and reasonable pole attachment rates, such as Washington.²⁴ The FCC cable rate formula was not created by any one industry to serve the "mutual improvement and common purposes" of that particular industry. Rather, the FCC cable rate formula was developed by an impartial regulatory agency whose charge from Congress was to develop a methodology for determining just and reasonable pole attachment rates to constrain monopoly behavior.²⁵

²² Simonson Report at 3.

²³ Saleba Report at 4.

²⁴ See footnote 15 supra.

²⁵ Initial Report at 5-6, 14.

The fact that the FCC lacks legal jurisdiction over publicly-owned utilities, such as the PUD, has nothing to do with how just and reasonable rates should be set from an economic and public policy perspective.

21. As discussed in my Initial Report,²⁶ and reiterated above in this Reply Report, what is pertinent from an economic and public policy perspective is that the very same fundamental economics of supply and demand for pole attachments, and accordingly, the role of effective pole rate regulation, that apply in the case of IOUs would apply to non-profit utilities such as the PUD. Thus, in my opinion, the economic appropriateness and applicability of the FCC cable rate methodology is just as compelling for non-profit utilities such as the PUD. The objections raised in the Saleba Report against the FCC cable rate formula, and in favor of the APPA formula, are completely unwarranted.

III. THE SALEBA REPORT MAKES A NUMBER OF FALSE CLAIMS THAT DEMONSTRATE A FUNDAMENTAL MISUNDERSTANDING OF THE FCC CABLE RATE FORMULA METHODOLOGY

The FCC cable rate formula is a fully allocated cost methodology – not an incremental cost methodology, and along with make ready charges, pole owners recover much more than incremental costs under the FCC method.

22. In his misplaced objections to using the FCC cable formula, Mr. Saleba asserts “[a] fundamental difference between rate methodologies supported by the attachers and the electric utility industry is the concept of incremental rates versus rolled-in rates.”²⁷

Apparently, Mr. Saleba believes that attachers should be charged a “rolled-in” versus an incremental rate. What Mr. Saleba does not appear to understand is that the FCC cable rate is in fact a “rolled-in” rate and not an incremental rate.

²⁶ Initial Report at 6.

²⁷ Saleba Report at 12.

23. As I explained in my Initial Report,²⁸ Section 224 of the Communications Act, upon which the FCC cable formula is based, “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...occupied by the pole attachment by the sum of the operating expenses and actual capital costs of the utility attributable to the entire pole.” By design, and as is widely recognized, the FCC cable formula adheres to the *greater* fully allocated cost standard set forth in Section 224(d)(1).²⁹ The fully allocated cost standard allows for recovery of costs from the attacher pertaining to the entire pole, including many costs that would exist *independently of* the existence of the third-party attachment (as distinct from incremental costs that would not exist “but for” the attachment). Thus by definition, the FCC’s adherence to a fully allocated cost standard allows the utility to recover *much more* than the incremental (or additional) cost of attachment and results in a “rolled-in” pole attachment rate (to use Mr. Saleba’s term) as permitted under Section 224.

24. That said, it is important to reiterate that even if the PUD only recovered the incremental cost of providing pole attachments (i.e., the low end of Section 224’s permissible cost recovery range), such an incremental rate would still be just and reasonable. As I explained in detail in my Initial Report, as long as rates are set to recover the incremental costs of pole attachment, those rates are economically efficient and result in a win-win situation for the attacher, the utility, and society at large in terms of maximizing the productive use of societal resources (that would otherwise be unused capacity on the utility’s poles).³⁰

²⁸ Id. at 14-15.

²⁹ See, e.g., *Alabama Power v. FCC*, 311 F.3d 1357 (11th Cir. 2002) (“*Alabama Power*” or “*APCo*”) at 1363 (“Based on these guidelines [47 U.S.C. 224(d)(1)], the FCC promulgated regulations that focused on the upper end of this range”), and at 1369 ([T]he fact [is] that much more than marginal cost is paid under the Cable Rate.”)

³⁰ Initial Report at 10, 13-14.

25. In fact, and as discussed in my Initial Report,³¹ the FCC cable methodology allows the utility to recover all of the purely incremental costs associated with pole attachment from the attacher in the form of make ready charges, in addition to the fully allocated rent.³² Thus, through the combination of the rental rate and make ready charges -- the former adhering to a fully allocated cost standard, and the latter designed to recover the incremental costs of attachment (i.e. the costs that would not exist “but for” the attachment) -- utilities are ensured recovery of much more than the incremental cost of attachment. Therefore, there is absolutely no validity to Mr. Saleba’s claim that there would be “costs that the PUD would not receive from the pole attachment customers due to incremental pricing [that] would have to be collected from the [PUD’s] remaining [retail] customer.”³³

The FCC cable rate is not a subsidized rate and provides more than just compensation, especially with make ready charges.

26. For the same reasons discussed in the preceding section (i.e., the FCC methodology allows the pole owner to recover much more than the incremental cost of attachment), Mr. Saleba’s claim that the FCC rate is a subsidized rate is without merit and at odds with widely accepted economic principles. Indeed, the argument that the FCC rate is a subsidized rate has repeatedly been discredited by the FCC and the courts, including the Supreme Court.³⁴ While the notion that the FCC cable rate is a subsidized rate, or was developed to subsidize the cable industry, is commonly asserted by monopoly electric utility pole owners, there is simply no economic validity to the argument. As I explained in my Initial Report:³⁵

While economists may disagree on many things, there is perhaps one central tenet upon which there is solid agreement, and that is the notion that rates that recover the marginal costs of production are economically

³¹ Id. at 10, 15.

³² Make ready charges consist of any out-of-pocket costs incurred in connection with making space available through routine rearrangement of facilities on the pole and/or pole replacement.

³³ Saleba Report at 12.

³⁴ See , e.g., *Florida Cable Telecommunications Association et al v. Gulf Power Company*, EB Docket No. 04-381, FCC 07D-01 (Rel. Jan. 31, 2007) (“FCTA”), at 21, note 10 (“The evidence also fails to prove that Cable Formula rents are insufficient to put Gulf Power in as good a position as it was before any taking of its pole space The Commission has already concluded that Cable Formula rates plus payment of make-ready expenses, provides compensation that exceeds just compensation.”).

³⁵ Id. at 10.

efficient and subsidy-free.³⁶ For a subsidy to occur, the utility must have unrecovered costs that *but for* the attacher would otherwise not exist. This is decidedly *not* the case for pole attachments since make ready charges alone essentially cover the marginal costs of attachment. From an economics standpoint, where rates cover the additional or marginal cost of attachment, neither the utility 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).³⁷ The economist's notion of cross-subsidy avoidance is consistent with the legal principle in takings law for just compensation as summarized in the *Alabama Power* case.³⁸

27. As cited above, just compensation (both economic and legal) is satisfied with a showing that the pole owner is made “no worse off” in connection with a third-party attachment. Indeed, as discussed in my Initial Report, the pole owner in fact ends up being made “better off” after an additional cable attachment is made, since the utility receives (through the combination of the cable rental rate and make-ready charges) well in excess of the marginal costs of the attachment and typically ends up with greater available pole capacity to rent or use for its own purposes.³⁹

28. It is also important to distinguish between the true economic costs of providing pole attachments and any purported “costs” the utility believes it should be able to recover for the perceived “value” to attachers. In accordance with economic principles as well as the legal principle of just compensation, the latter (i.e., perceived value) is not a real cost for which the utility is entitled to recover (but rather relates to the monopolist's perceived inadequacy of the regulated rate in satiating its desire to charge a price far in excess of a competitive market rate).⁴⁰ Allowing the utility to charge for the perceived “value” to the

³⁶ See, e.g., Paul A. Samuelson, *Economics*, Tenth Edition, McGraw-Hill Book Company, 1976 at 462-3.

³⁷ See, e.g., Bridger M. Mitchell, “COSTS AND CROSS-SUBSIDIES IN TELECOMMUNICATIONS,” *The Changing Nature of Telecommunications/Information Infrastructure*, National Academy Press, Washington, DC, 1995. “A group of customers is being subsidized if their price is so low that the service supplier and its other customers would be better off if the service were discontinued. This circumstance occurs only when the increase in revenues to the [telephone] company from offering the service is less than the increased costs of providing it.”

³⁸ “*APCo* 311 F.3d at 1369. (“This takings principle is a specific application of the general principle of the law of remedies: an aggrieved party should be put in as good a position as he was in before the wrong, but not better.”)

³⁹ Initial Report at 10, 15.

⁴⁰ See *Id.* at 1369-70. (“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 be the ‘full market price’ of this pole space....(‘Special value to the condemner as distinguished from others who may or may not

attacher over and above the cost actually caused by the attacher, such as the APPA and WPUDA formulas do,⁴¹ is not economically valid and undermines important public policies to promote competition in telecommunications markets and broadband deployment. Indeed, just because a utility, absent effective rate regulation, could charge more than a fully compensatory rate, does not mean the utility is entitled to such an over-compensatory rate.

The FCC cable rate methodology attributes the cost of the *entire* pole, including both usable and unusable space (i.e., support and clearance space).

29. In support of his conjecture that the 3(a) component of the revised RCW 54.04.045 could “NOT be the cable rate,” Mr. Saleba claims the FCC cable rate “specifically excludes any unusable space, such as the support and clearance space.”⁴² Mr. Saleba’s assertion that the FCC cable rate excludes unusable space is completely incorrect and represents a fundamental misunderstanding or confusion as to the FCC cable rate methodology. (Broader objections to Mr. Saleba’s conclusion regarding the appropriate methodology for the 3(a) rate are provided in the following section of this report.) While a full rebuttal to Mr. Saleba’s false claim is provided in the discussion of the FCC methodology presented in my Initial Report, because this is such a pivotal point in the debate as to the appropriate methodology for determining a just and reasonable pole attachment rate, the salient parts of that discussion are reiterated here as well.

30. As described in my Initial Report, the FCC cable formula assigns the costs of the *entire* pole - including both direct (usable) and common (unusable) space alike - to an attacher based on an attacher’s relative occupancy of usable space on the pole.⁴³ This particular allocation methodology, one in which pole costs are assigned in accordance with actual use, is consistent with cost allocation principles well established in the economics and regulatory literature and embodied in Section 224 of the Communications

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.”)

⁴¹Using the APPA and WPUDA formula and 2008 data, Mr. Saleba calculates pole rental rates in the range of \$37.18 and \$40.73, which by his own calculations, exceed the fully compensatory, cost-based FCC cable rate by as much as 600% to 700%. See Saleba Report at 9.

⁴² Saleba Report at 11.

⁴³ Initial Report at 15-19.

Act, upon which the FCC formula is based, and also with common real estate and other facility leasing applications.⁴⁴

31. Further, as I also noted in my Initial Report, it is important not to confuse the particular *choice of allocator* (i.e. the proportion of usable space occupied by the attacher) used in the FCC cable formula to attribute space on the pole with the *actual costs that are being attributed* (i.e., the *total space* on the pole including both usable and unusable space).⁴⁵ Indeed, this is precisely what Mr. Saleba does in his report. This particular misrepresentation is a common among electric utilities seeking to extract a rate higher than the cost-based FCC formula rate would justify. The FCC formula most assuredly allocates costs associated with unusable space - it simply does so on the basis of relative use.

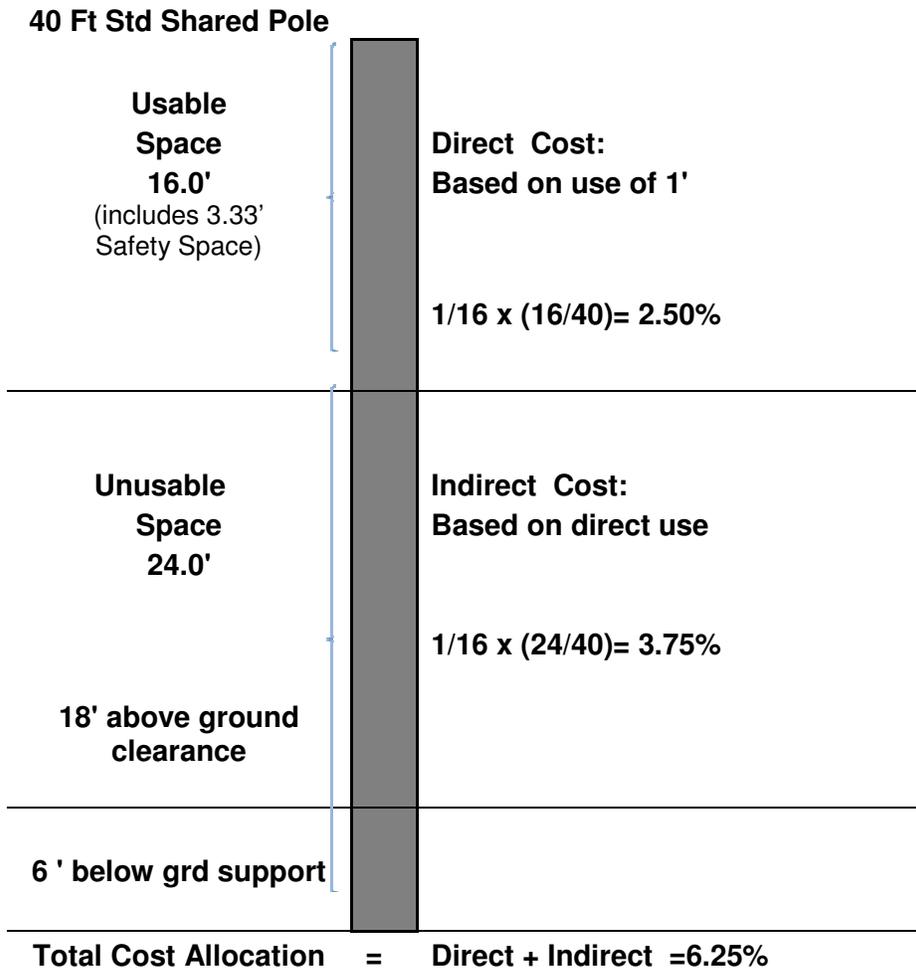
32. A graphical illustration of this point was presented in my Initial Report,⁴⁶ which I have reproduced as Figure 1 below. As illustrated in Figure 1, the FCC cable formula allocates the *same* proportionate share (1/16 or 6.25%) of the costs associated with usable *and unusable* space on the pole, including the 6' of below ground support and the 18' of above ground clearance space.

⁴⁴ Id. at 18-19.

⁴⁵ Id. at 18, 32.

⁴⁶ Id. at 17.

Figure 1:
Allocation of Total Pole Costs including Unusable Space under FCC Cable Formula



IV. THE SALEBA REPORT REACHES ERRONEOUS CONCLUSIONS REGARDING THE RATE METHODOLOGY FOR THE POST-JUNE 12, 2008 TIME PERIOD BASED ON UNSUPPORTED AND INCONSISTENT INTERPRETATIONS OF AMENDED RCW 54.04.045

33. Mr. Saleba provides little, if any, economic justification to support his interpretation of amended RCW 54.04.045. Rather, Mr. Saleba merely concludes, “based on [his] reading of the law, the first subsection, (3)(a) refers to the FCC telecom methodology, but it can (at the election of the utility) be substituted by the FCC cable methodology,” and “[t]he second part, subsection (3)(b), clearly refers to the APPA methodology.”⁴⁷ In my

⁴⁷ Saleba Report at 10.

opinion, Mr. Saleba's conclusions are not only unjustified, but make little sense from an economic or public policy perspective. Mr. Saleba's "interpretation" of the new statute also ignores the obvious similarities between the language in the new statute and the language in the statute governing pole rates for IOUs in Washington, RCW 80.54.040.

3(a) Component

34. Mr. Saleba argues subsection 3(a) could not be the FCC cable rate formula on two main grounds: "first, subsection (4) allows the FCC cable rate to be substituted for the rate outlined in subsection (3)(a)," and "[s]econd, the FCC cable rate specifically excludes any unusable space, such as support and clearance space" and the language in the act specifies "'a share' of support and clearance space is attributed to attachers."⁴⁸ Mr. Saleba's reasoning is flawed on both counts. As discussed in detail below, in my opinion as an economist with experience in determining just and reasonable pole rates, the 3(a) component of the amended statute should be calculated using the FCC cable formula, not the FCC telecom formula (or the APPA rate formula).⁴⁹

35. First, there is nothing in the language contained in subsection (4) of the amended RCW 54.04.045 that precludes the use of the FCC cable rate formula in subsection 3(a). The complete language of subsection (4) is as follows:

For the purposes of establishing a rate under subsection (3)(a) of this section, the locally regulated utility may establish a rate according to the calculation set forth in subsection (3)(a) of this section or it may establish a rate according to the cable rate formula set forth by the federal communications commission by rule as it existed on June 12, 2008, or such subsequent date as may be provided by the federal communications commission by rule, consistent with the purposes of this section.

36. In my opinion, the language in subsection 4 refers to a pending FCC pole proceeding (in which I am participating as an expert) where the FCC is considering adopting a unified pole rate that would apply to all broadband providers, in place of the separate

⁴⁸ Id.

⁴⁹ Id. Mr. Saleba suggests "this subsection could potentially be interpreted as the APPA rate formula," although he deems "it is more likely that this subsection is intended as the FCC telecom rate formula."

cable and telecom rates.⁵⁰ While Mr. Saleba may not be aware of the rulemaking, it appears that the Washington state legislature crafted language to account for any possible change to the FCC cable rate formula in subsection 4. If anything, the language in subsection (4) by referencing potential subsequent rule changes to the FCC cable rate formula, in my opinion, and based on my involvement in the FCC pole proceeding, actually *corroborates* that the FCC cable formula methodology (which essentially is the same as the IOU methodology) is the appropriate rate methodology for calculating the 3(a) rate. Indeed, it would have been both reasonable and practical for the Washington legislature to have built in language into the revised statute to specifically allow for the possibility of subsequent FCC rule changes.

37. In my opinion, the essence of subsection 4 is simply to allow the utility to calculate the 3(a) rate using any version of the FCC cable formula that the FCC may have in place either as of the effective date of the legislation, or at any time subsequent. Contrary to Mr. Saleba's assertion, in my opinion, subsection 4 makes much more sense if the methodology in subsection 3(a) tracks the historical FCC cable rate formula (as the IOU statute does), as both Mr. Simonson and I opine in our report. Taken together, the two subsections give the utility the option to elect either the historical FCC cable rate formula or any FCC-modified cable rate, which makes sense given the possibility that the FCC might revise the cable rate as anticipated at the time RCW 54.04.045 was being amended.

38. Mr. Saleba's second reason for concluding the language in 3(a) is intended to be the telecom formula and not the cable formula, is his belief that the FCC cable rate excludes unusable space. As demonstrated above, Mr. Saleba appears to confuse the choice of allocator used in the FCC cable rate methodology with the overall costs being allocated and reaches a faulty conclusion on that basis.

39. As explained in my Initial Report, the allocator identified in 3(a) references a proportionate use allocator (i.e., costs allocated "in proportion to the space used for pole attachment") for both usable and unusable space precisely as utilized in the FCC cable

⁵⁰ In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments, WC Docket No. 07-245, RM 11293, RM 11303 ("FCC 2008 Pole Proceeding").

formula.⁵¹ The telecom formula, however, utilizes a per-capita allocator for allocating the costs of unusable space (i.e., costs divided per attaching entity). Indeed, there is no reference whatsoever to attaching entities in 3(a), which is a key difference between the FCC cable and telecom formula – again, the cable rate does not reference attaching entities, whereas the telecom formula does.

40. Similarly, Mr. Saleba mistakenly believes that because 3(a) references a share of the required support and clearance space.” then 3(a) must be the telecom formula because that formula “shares two-thirds of the support and clearance space among all attaching entities.”⁵² First, as explained above, the FCC cable formula *also* allocates a “share” of the unusable space. The more important economic distinction between the FCC cable and telecom formulas is *how the share of unusable space is allocated*. Indeed, the language in 3(a) dictates that the costs of the unusable space be allocated “in proportion to the space used for the pole attachment” (which is how the cable formula allocates unusable space costs) rather than on per attacher basis (which is how the telecom formula allocates unusable space costs).

41. Mr. Saleba’s erroneous connection between 3(a) and the telecom formula is without economic or logical foundation, given there is no specific mention in 3(a) of either the telecom formula’s two-thirds adjustment factor⁵³ - a fact he himself acknowledges,⁵⁴ or more significantly, any mention whatsoever of a per-entity allocation methodology (in contrast to the explicit per-entity language in 3(b)). For these reasons, based on my experience as an economist in determining just and reasonable pole rates and in applying the FCC formulas, 3(a) is neither the telecom nor APPA formulas, but rather the FCC cable formula.

⁵¹ Initial Report at 33-34.

⁵² Saleba Report at 10.

⁵³ As described in my Initial Report, in allocating the costs associated with unusable space on the pole, the FCC telecom formula takes 2/3 of that unusable space and divides that equally by the number of attaching entities. See Initial Report at 26 for the complete telecom formula.

⁵⁴ Saleba Report at 10 (“In subsection (3)(a), only a “share” of support and clearance space is attributed to attachers. While subsection (3)(a) does not specifically mention the two-thirds factor as prescribed by the FCC telecom formula, and this subsection could potentially be interpreted as the APPA rate formula, it is more likely that this subsection is intended as the FCC telecom rate formula.”)

3(b) component

42. Since the same “share of the required support and clearance space” language on which Mr. Saleba bases his interpretation of 3(a) also appears in 3(b), by his own logic, Mr. Saleba should conclude that the 3(b) rate is also the telecom formula. Instead (and despite the similarity which he himself acknowledges between the language in 3(a) and 3(b)),⁵⁵ in interpreting 3(b), Mr. Saleba proceeds to ignore the connection he made in 3(a) between the “share” language and the FCC telecom rate. Instead Mr. Saleba chooses to focus on the “divided equally” language of the per-capita allocation methodology contained in 3(b). In my opinion, just because the legislature decided to divide the unusable space equally rather than using a two-thirds factor, that does not mean that 3(b) is somehow transformed into the APPA formula (which as noted previously, is a utility-created methodology that has not been adopted by any government agency). Mr. Saleba’s interpretation of subsection 3(b) hinges on a minor distinction versus the major cost-based one. In my opinion, whether or not the unusable space costs of the pole are divided equally (as in the APPA methodology) or divided equally after application of a two-thirds adjustment factor (as in the FCC telecom methodology) is not a major economic distinction, but a relatively minor legislative modification.

43. The more important distinctions between the APPA and the FCC telecom formulas have to do with the manner in which overall costs are determined and the manner in which the amount of unusable space on the pole is determined. In these key respects, the APPA and telecom formula methodologies are very different, and there is no support in the statute itself to suggest the legislature intended costs allocated in 3(a) to be different than 3(b) given their virtually identical language.

44. For example, with regard to costs, the FCC telecom formula (like the FCC cable formula) derives the bare pole cost and annual carrying charge factor (CCF) using net costs (to properly account for prior cost recoveries through depreciation), whereas the APPA methodology uses gross costs.⁵⁶ In addition, the FCC telecom formula (like the

⁵⁵ Id. (“While subsection (3)(a) and (3)(b) sound similar, the distinction is that in subsection

⁵⁶ See Saleba Report, Exhibit GSS-5 for a comparison of the different formula methodologies. As shown in this Exhibit, based on Mr. Saleba’s calculations using 2008 PUD data, the FCC cable and telecom rate formulas derive the same bare pole cost and annual carrying charge factor based on a net cost calculation

FCC cable formula) and following precisely the language in 3(a) and 3(b), considers unusable space to be comprised of the “required support and clearance space” (i.e., the part of the pole buried below grade and the part of the pole above grade required to clear possible interference and obstacles and on which attachments cannot be made). The APPA methodology, on the other hand, also treats the so-called “safety space” (i.e., the space between the lowest electric attachment and the highest communications attachment) as unusable space,⁵⁷ even though as discussed in my Initial Report, the safety space is widely recognized as usable, revenue-producing space for the electric utility.⁵⁸ Notwithstanding, electric utilities typically try to reclassify the safety space as unusable because formulaically it produces a higher pole rate (as it does here).

45. Again, there is no support in the statute that the legislature intended that the types of costs to be allocated in 3(a) and 3(b) would be different.⁵⁹ Indeed, Mr. Saleba acknowledges that the cost language in the two subsections is identical but then conveniently proceeds to ignore this fact. Moreover, as demonstrated above, the 3(a)/3(b) cost language is basically identical to the language in RCW 80.54.040 for investor-owned utilities, which in turn mirrors the language in Section 224 of the Communications Act upon which the FCC cable and telecom rate formulas are based.

46. In my opinion, Mr. Saleba presents no rational basis for interpreting the same basic overall cost language in 3(a) and 3(b) using two completely distinct economic cost formulations (i.e., the FCC telecom formula in 3(a) and the APPA formula in 3(b)). Instead, there is a compelling economic reason for interpreting the two subsections as variations of the same overall cost-based methodology (i.e., the FCC cable formula for 3(a) and a modified-FCC telecom formula for 3(b)).⁶⁰ In sum, Mr. Saleba’s contention

(\$207.47 and 45.26% respectively), whereas the APPA methodology determines a bare pole cost and annual carrying charge factor using on a very different gross cost calculation (\$650.46 and 19%, respectively) from the FCC methodology. With respect to unusable space, Mr. Saleba calculates 24.2 feet of space on a 41.7 foot pole as unusable space under the two FCC formulas, compared to 27.5 feet of unusable space under the APPA formula.

⁵⁷ With respect to unusable space, Mr. Saleba calculates 24.2 feet of space on a 41.7 foot pole as unusable space under the two FCC formulas, compared to 27.5 feet of unusable space under the APPA formula.

⁵⁸ Initial Report at 16.

⁵⁹ Id. at 32-33.

⁶⁰ See Id. at 33 for discussion of the identical nature of the overall pole cost language in 3(a) and 3(b). See also Id. at 34 for discussion of the minor modification to the telecom formula’s unusable space allocator

that 3(a) is the telecom formula and 3(b) is the APPA formula makes no sense either from an economics perspective or based on a comparison of the essentially identical language in 3(a), 3(b), and the IOU statute, RCW 80.54.040.

V. THE RATE METHODOLOGY AND CALCULATIONS PRESENTED IN THE SALEBA REPORT SUFFER FROM NUMEROUS PROBLEMS THAT APPEAR DESIGNED TO PRODUCE EXCESSIVE MONOPOLY POLE RATES

47. The Saleba Report presents various pole rate calculations that are “updated” versions of the 2005 study performed for the PUD several years ago using the FCC cable, FCC telecom, APPA, and WPUDA rate methodologies.⁶¹ In my opinion, Mr. Saleba’s updated calculations are designed to produce excessive monopoly pole rates rather than mere revisions of his prior study. The Saleba report identifies four main areas of “updates:” (1) updated financial accounting data from calendar year 2008; (2) updated survey data on the number of attachers; (3) the inclusion of transmission poles; and (4) updates to the carrying charge factor involving the equity component of the PUD’s cost of capital and administrative expenses.⁶² Each of these is discussed in turn below.

Updated Financial Information from Calendar Year 2008

48. Mr. Saleba’s 2005 study was based on PUD financial accounting data for year-end 2004. For the current study, he updated his analysis to use data from calendar year 2008. While the updating of his prior analysis to reflect financial information subsequently available is appropriate, Mr. Saleba inappropriately relies on the updated data as the basis for setting the maximum lawful just and reasonable pole rate for all years at issue in this litigation.

49. As I describe in my Initial Report, consistent with my experience calculating pole attachment rates nationwide, rates are typically calculated using year-end data from the prior year to calculate applicable rates for the current year.⁶³ This allows the utility to

pursuant to subsection 3(b), namely the elimination of the telecom formula’s two-third adjustment factor applied to unusable space costs prior to the equal division among attaching entities.

⁶¹Using 2008 data, Mr. Saleba calculates rates of \$5.35 for FCC Cable, \$17.48 for FCC Telecom, \$37.18 for APPA, and \$40.73 for WPUDA rate methodologies respectively,

⁶² Saleba Report at 7-8.

⁶³ Initial Report at 31.

recover the actual costs of pole attachment and ensures the attacher is neither under nor over charged. In this context, Mr. Saleba is wrong in asserting “pole attachment rates are set for a selected test period, or periods, of time over which expenses and assets are aggregated.”⁶⁴ The rates Mr. Saleba calculated using year-end 2008 data properly apply only to pole rates for 2009. In order to calculate rates for the other relevant years that are the subject of this litigation, Mr. Saleba would need to use the appropriate year-end data, which he has not done. For example, rates calculated using year-end 2006 data apply to pole rents for 2007, and rates calculated using year-end 2007 data apply to pole rents for 2008. While this one failing may be easy to correct, because of the many other problems with Mr. Saleba’s rate calculations as described further below, it is my opinion that none of Mr. Saleba’s calculations are economically valid or produce just and reasonable rates, as required by the original and revised RCW 54.04.045.

Updated Data on Number of Attachers

50. Mr. Saleba’s 2005 study relied on a calculation which divided the total number of contacts on the pole by the total number of PUD poles, based on information available at that time. That 2005 calculation yielded an average number of contacting entities of 1.73.⁶⁵ For the current study, he updated his analysis based on a recent survey by the PUD. According to the Saleba Report, “[f]or this 2008 update, the PUD surveyed over 2,800 out of the utility’s 9,682 transmission poles and distribution poles with over 2,000 of those surveyed containing third-party attachments, and determined the number of attachments on each pole. Based on this sample, the average number of attachers per pole, excluding poles with electric only, was calculated. The updated calculation resulted in an average of 2.38 attachers per pole.”⁶⁶

51. The number of attachers per pole is a key input in formulas relying on a per-capita method of cost allocation, including the FCC telecom formula as well as the APPA, and WPUDA formulas. (The FCC cable formula, on the other hand, relies on a proportionate share allocator, which again is why subsection 3(a) cannot be the telecom formula as

⁶⁴ Saleba Report at 4.

⁶⁵ Id. at 7.

⁶⁶ Id.

there is no mention of attaching entities in this subsection, only a proportionate share allocator.) The calculation of the number of attaching entities typically adds complexity and a degree of arbitrariness to the calculation, because the number of attaching entities varies pole to pole and service area to service area. Also, because the average number of attaching entities has a significant impact on the final rate, this component is subject to manipulation by pole owners who in my experience typically seek to drive the average number of attaching entities down in order to raise the rate (i.e., the lower the number of attaching entities, the higher the rate because the pole costs are divided among the attaching entities).

52. Because subsection 3(b) of the revised RCW 54.04.045 clearly directs the use of a per capita allocation methodology, the number of attaching entities must be calculated for purposes of determining a just and reasonable pole attachment rate for the post-June 12, 2008 period. For the reasons described above, however, it is essential that this key input be carefully scrutinized to ensure it was determined properly. In my opinion, in this case, the average number of attaching entities was improperly manipulated by Mr. Saleba to raise the PUD's pole attachment rates.

53. Mr. Saleba updated the number of attaching entities in two ways. First, transmission poles were included in the survey (whereas the original calculation appropriately considered only distribution poles). Second, separate calculations of the number of attaching entities were made according to "rural" and "urban" service areas which Mr. Saleba then combined using a weighted average to derive a "PUD Average."⁶⁷ As detailed below, neither of Mr. Saleba's revisions is supported from an economic or public policy perspective. Rather, in my opinion, the updates were intended to drive results, rather than produce just and reasonable rates. Indeed, all else being equal, the two changes made by Mr. Saleba work to lower the number of attaching entities relative to what the count would otherwise be, thus artificially raising the pole rates.

54. With regard to the first revision to include transmission poles, Mr. Saleba explains that "attachers use both distribution and transmission poles." What Mr. Saleba does not

⁶⁷ Id.

appear to take into account, however, is that the preponderance of third-party attachments are on distribution poles as a result of the typical presence and proximity of distribution poles to the end-user customer premises relative to transmission poles. Accordingly, it would be expected, all other things being equal, that the inclusion of transmission poles into the sample of poles surveyed would have the effect of lowering the average number of attaching entities.⁶⁸ The failure to separately track these two distinct sub-populations of poles reduces the reliability and accuracy with which the sample results can be extrapolated to the total population of poles upon which third-party entities are typically attached. Moreover, none of the formulas cited in Mr. Saleba's report, including the industry-created APPA and WPUA formulas, include transmission poles. For these reasons, transmission poles should not be used to calculate the number of attaching entities in the pole rate calculation.

55. The second major "update" in the calculation of the number of attaching entities is the disaggregation of poles into "urban" and "rural" areas. This revision also introduces a downward bias into the calculation (and correspondingly an increase in the resulting pole rate). This downward bias results because the number of attaching entities determined for areas assumed to be "rural" was lower (2.29) than the comparable figure (2.65) determined for areas assumed to be "urban," and Mr. Saleba's decision to give much more weight to the lower "rural" average. Specifically, when combining the two averages together to develop an overall average PUD figure, Mr. Saleba applied a much higher weight (75%) to the "rural" average than the weight (25%) applied to the "urban." The resulting overall average figure calculated by Mr. Saleba using this weighed average approach is 2.38,⁶⁹ as compared with the overall (simple) average of 2.51 calculated without the urban/rural distinction as was done in the 2005 study.⁷⁰

56. There is no sound economic basis for the weighted average approach to calculating the number of attaching entities in the updated Saleba study. For example, the FCC

⁶⁸ While there are statistical techniques that could be applied to determine and correct for the natural downward bias on the number of attaching entities resulting from the inclusion of transmission poles in the sample of poles surveyed by the PUD, based on the materials provided in discovery by the PUD relating to its pole survey, it does not appear that transmission and distribution poles were separately tracked in the PUD survey, making it impossible to make such a determination

⁶⁹ The 2.38 weighted average is derived as follows: $(.75 \times 2.29) + (.25 \times 2.65)$.

allows for a different number of attaching entities for rural and urban areas, because there is a significant distinction between rural and urban areas nationwide.⁷¹ In this case, within the PUD's service area, there is no such distinction.

57. Indeed, the distinction between urban and rural used in the Saleba study appears based on an seemingly arbitrary decision to categorize incorporated areas of Pacific County as "urban" and unincorporated areas as "rural," rather than based on population. Specifically, Pacific County has no areas with a population of 50,000 or more, which is the standard Census Bureau distinction between urbanized and non-urbanized areas upon which the FCC's rural/urban distinction is based.⁷² Indeed, the entire Pacific County population is just over 20,000 people.⁷³ Moreover, Mr. Saleba provides no empirical data to support his disaggregation of poles as between incorporated and unincorporated areas of the County (e.g., data that would demonstrate different pole characteristics on the basis of differences in underlying economic, population, or social conditions).⁷⁴ In addition, the sample of PUD poles used by Mr. Saleba appears to be limited to its service areas that do not include the poles to which Charter (the defendant with the most attachments on the PUD's poles) is attached, which raises further questions about the accuracy of Mr. Saleba's calculation of the average number of attaching entities.

58. By objective economic and public policy criteria, such as established by the FCC, all of Pacific County would be reasonably classified as rural, and any sampling of poles should be aggregated at the county level. In my opinion, there is no meaningful economic or statistical basis for separating out these two separate subsets (i.e., rural and urban) of the PUD's population of poles for purposes of calculating a just and reasonable rate – other than to artificially produce a higher pole rate. Accordingly, there is no

⁷⁰ The 2.51 simple average is derived as by taking the total number of attachers (5059) and dividing by the total number of poles excluding electric only poles (2013), without regard to "urban" or "rural" distinction.

⁷¹ See *FCC Recon Order* at ¶67 ("we provide utilities the option of using our presumptive averages [3 for rural and 5 for urban]... or developing averages for two areas: (1) urbanized (50,000 or higher population), and (2) non-urbanized (less than 50,000 population)").

⁷² See *FCC Recon Order* at ¶66 ("Utilities that have multiple service areas in a state would classify each service area, as either urbanized or non-urbanized depending on whether any part of the service area is within an area designated by the Bureau of Census as urbanized.")

⁷³ <http://www.co.pacific.wa.us/geninfo.html>

⁷⁴ Indeed, it is generally recognized, that people living in unincorporated areas right outside or nearby the incorporated boundaries of smaller cities or towns may be as likely to be living in areas as density settled and developed as those living within the incorporated areas.

meaningful economic or statistical basis for an assumption of a 75%/ 25% rural/urban weighted average such as calculated by Mr. Saleba in his current study versus a simple average for the county as used in my rate calculations and in the calculations performed by Mr. Saleba in his earlier study.

59. In sum, there is no valid economic or public policy basis to have disaggregated the results of the pole survey in the manner presented in the Saleba Report. There is also no valid reason to believe Mr. Saleba's weighted average result of 2.38 is a more accurate prediction of the number of attaching entities throughout the County than the 2.51 average for the sample as a whole. This conclusion is further corroborated by Charter's independent inspection of all the PUD poles on which it resides. Charter's inspection yielded an average number of attaching entities of 2.88 or 2.76, depending on whether streetlight attachments were counted.⁷⁵

Inclusion of Transmission Pole Costs

60. Mr. Saleba's 2005 study calculated pole rents based on costs for PUD distribution poles only. In the updated study, Mr. Saleba decided to include the costs of both distribution and transmission poles into the rate calculation, resulting in a "blended" pole rate. Similar to the distortion created by counting transmission poles to determine the number of attaching entities as discussed above, adding transmission pole costs affects the rate calculations in other key respects, specifically with regard to the bare pole cost, the carrying charge factor, and the space allocation factor. While the inclusion of transmission pole data affects these components in differing ways, as a general matter, including transmission poles into the pole rate calculation tends to increase pole rates because transmission poles, by their very nature, are necessarily taller, stronger, and hence more expensive to install and maintain than distribution poles.

61. According to Mr. Saleba, he included transmission poles in the updated study "because some of the cable tv and telecommunications attachers connect on transmission poles."⁷⁶ While it is true that "some" attaching entities may occupy space on PUD

⁷⁵ See Bates-numbered document CHA 237 and CHA 357.

⁷⁶ Saleba Report at 8.

transmission poles, this fact in of itself does not make it economically appropriate to calculate a combined transmission/distribution pole rental rate. Indeed, the preponderance of third-party attachments are on distribution poles, and occupancy on transmission poles it not universal across third-party attachers. Thus, even if an attacher had no attachments on transmission poles, allowing the PUD to charge a blended rate would inequitably subject those distribution pole attachers to higher rates.

62. Furthermore, as mentioned above, transmission poles systematically differ from distribution poles with respect to key structural characteristics including height, weight, and unit cost.⁷⁷ Statistically speaking, transmission poles represent a different subpopulation of poles, and costs and other data relating to these poles have historically been tracked and reported separately in the financial records of the utility. Combining the different subpopulations of poles together would therefore produce a less accurate and less efficient rate, i.e., a rate that less closely tracks cost, thereby sending distorted price signals to an attacher relative to their respective use of these different types of pole resources.

63. For these reasons, the pole rate methodologies with which I am familiar - including not only the FCC methodologies, but the industries' own APPA methodology - rely on data for distribution poles only in order to develop pole rates applicable to the preponderance of third-party attachments which are on distribution poles. Indeed, Mr. Saleba followed the standard distribution-only pole methodology in his 2005 study, and in my opinion, there is absolutely no justifiable reason for his decision to deviate from the standard distribution-only methodology in his updated study.

64. In the limited cases where attachers have a significant presence on a utility's transmission poles, utilities are able develop and apply a separate transmission only pole rate.⁷⁸ That way, attachers without attachments on transmission poles will not be charged

⁷⁷ See Attachment 1 to this Reply Report for a comparison of height and cost data as between transmission and distribution poles, using PUD data.

⁷⁸ Using 2008 data, I calculate a FCC cable rate for transmission only poles of \$9.23, as compared with a rate of \$4.62 for distribution only poles and a blended (distribution and transmission) rate of \$4.94. Calculations are provided in Attachment 1 to this reply report.

an unjust or unreasonable “blended” transmission and distribution rate, as the PUD attempts here, which in my opinion is primarily designed to artificially drive up rates.

Updated Equity Component of the Capital Cost Element of the CCF

65. Mr. Saleba’s updated study also improperly increased the equity component of the capital cost element of the CCF (a utility’s capital cost⁷⁹ is comprised of two major components: debt and equity). In his 2005 study, Mr. Saleba calculated the debt component of the PUD’s capital cost element based on the PUD’s recorded interest expenses (5%), and the equity component based on an imputed return (6%) on the PUD’s retained earnings (i.e., surpluses of net income built up over the years from normal operations as well as gains from the sale of assets and investments). Using this methodology, Mr. Saleba calculated a cost of capital of 6% in his original study. Overall, I found Mr. Saleba’s original methodology to be a reasonable approach (albeit generous to the PUD given current interest rate levels), and one that I used in my own rate calculations.

66. In his updated study, Mr. Saleba revised the PUD’s cost of equity to reflect, what is in his opinion, are the capital costs facing the PUD’s shareholders or customers. Specifically, he assumed the “cost of equity to the PUD is based on the cost of debt to Pacific’s retail customers,” which he further assumes is comprised of “50 percent mortgage rate at 6 percent interest and 50 percent credit card rate at 15 percent interest.”⁸⁰ Based on these new assumptions, Mr. Saleba calculates a revised cost of capital of 8.5%⁸¹ as compared with the 6% cost of capital figure in the 2005 study.

67. To be clear, this particular adjustment to the capital cost component of the CCF does not represent an “update” to the calculation. Rather, Mr. Saleba substitutes an entirely different, and in my opinion, economically unjustified and unreasonable capital cost methodology. Mr. Saleba all but admits that the sole purpose of this particular “update”

⁷⁹ In the case of IOUs, the capital cost element of the CCF component of the rate formula is the allowed rate of return set by a regulatory commission. In the case of a non-profit consumer-owned utility, such as the PUD, an implicit cost of capital must be calculated.

⁸⁰ Saleba Report at 8.

⁸¹ See Id. Mr. Saleba’s revised cost of capital of 8.5% is calculated as follows: 36% debt times 5% interest rate plus 64% equity times [$\frac{1}{2}$ mortgage debt x 6% interest plus $\frac{1}{2}$ credit card debt x 15% interest = weighted average of 8.5%.

is to offset the effect of other changes to his calculation that had the effect of lowering the pole rate.⁸² The fact is there is absolutely no linkage between an update to the number of attaching entities based on a recent survey of PUD's poles and an update to the capital cost calculation. The "updated" capital cost methodology used by Mr. Saleba lacks both theoretical economic foundation as well as empirical support.

68. Mr. Saleba's attempts to justify his new capital cost methodology are similarly without merit. Mr. Saleba's argument that his original computation was "conservative"⁸³ is simply not true. There was nothing conservative about the original methodology – indeed, if anything it was very generous given the significant downward movement in interest rates and the opportunity cost of money (i.e., returns on comparably safe investment opportunities) in recent years, especially since the recession of 2008. Moreover, there is absolutely no economic justification for Mr. Saleba's argument that "the cost of equity to the PUD is based on the cost of debt to Pacific's retail customers."⁸⁴

69. Since the PUD is able to borrow at reasonable terms and has retained earnings available to use for its operations as well, there is no reason why the PUD's retail customers would ever borrow on behalf of the PUD. Furthermore, it would make no economic sense for them to do so at terms far less favorable (i.e., 15% credit card interest) than what the PUD could borrow at (5%).⁸⁵ In addition, Mr. Saleba provides no empirical support for the various assumptions he makes regarding the cost of debt to Pacific's retail customers, including the 50%/50% split between mortgage and credit card debt, or the mortgage rate of 6% and the credit card rate of 15%. These numbers appear to be no more than conjectures on Mr. Saleba's part, and further confirm my opinion that the updated capital cost calculation was used primarily to drive up the PUD's pole rates. Mr. Saleba's original capital cost methodology was reasonable (albeit overly generous to the utility) and should be relied on in the calculation of a just and reasonable pole rate as opposed to his new, justified, and results-driven approach.

⁸² Id. ([a]s the number of attachers has now been updated to reflect an accurate average, it is appropriate to update other assumptions [referring to the capital cost computation] at this time as well.")

⁸³ Id.

⁸⁴ Id.

⁸⁵ Tellingly, Mr. Saleba uses the PUD's average debt cost of 5% in his calculation of damages which he himself acknowledges "reflects the PUD's opportunity cost." Id. at 9.

70. In addition to the updates discussed above, there are four other components in the APPA and WPUDA rate methodologies presented in the Saleba Report that are inconsistent with the economic principle of cost causation underlying effective pole rate regulation. Two of these components relate to the bare pole cost calculation; the other two relate to the CCF.

71. First, with respect to the bare pole cost calculation, under both the APPA and WPUDA methodologies (as applied in the Saleba Report) bare pole costs are calculated on a gross cost basis. The FCC formula (for both the cable and telecom rates) calculates pole costs on a “net” not “gross” basis - where net costs are determined by adjusting the gross data by subtracting accumulated depreciation and deferred income taxes associated with that plant.⁸⁶ The FCC has found that calculating pole rates using net costs better reflects the utilities’ actual economic consumption and recovery of its plant through depreciation. The FCC has also found that the use of net book costs better prevents the over-recovery of investment.⁸⁷

72. Second, also relating to the bare pole cost calculation, the APPA and WPUDA formulas (as applied in the Saleba Report) use a “bottoms-up” approach for removing the capital costs booked to Account 364 (“Distribution – Poles, Towers and Fixtures”) that are not pole related such as cross-arms, transformer racks and platforms.⁸⁸ Specifically, Mr. Saleba calculated the bare pole costs by identifying what he deemed to be the pole-related costs out of the many individual detailed subaccounts tracked in Account 364. While Mr. Saleba’s approach is theoretically sound, under this approach, it is difficult for the attacher (and/or regulator) to ensure only those costs related to poles have been properly included in the calculation, because such an exercise would necessarily involve the verification of financial accounting data at a very detailed sub-account level. For example, it appears (but it is difficult to determine definitively) that Mr. Saleba inappropriately include the costs of grounding in determining the bare pole costs, even

⁸⁶ Initial Report at 20-21.

⁸⁷ See FCC Report and Order, *In the Matter of Amendment of Rules and Policies Governing Pole Attachments (“FCC Fee Order”)*, CS Docket 97-98, FCC 00-116, April 3, 2000, at ¶11.

⁸⁸ See *FCC Recon Order* at ¶121 for a listing of the various types of plant included in Account 364.

though grounds are not pole related and are properly excluded from the calculation of the bare pole costs. To ensure pole rates are just and reasonable, the FCC methodology presumes a 15% reduction factor to the aggregate Account 364 to account for the costs of appurtenances unrelated to poles. For the reasons outlined above, in my opinion, using the FCC methodology (which still provides generous cost recovery to the utility)⁸⁹ would better ensure a just and reasonable rate in this case.

73. Third, with respect to the carrying charge factor, both the APPA and WPUDA formulas (as applied in the Saleba Report) include additional overhead line-related expenses booked to Account 583 in the calculation of the maintenance component. The items booked to Account 583 include a host of expenses related to the provision of the core electric service but which have no cost causative linkage to poles.⁹⁰ Accordingly, the expenses in Account 583 do not properly belong in the calculation of just and reasonable pole rates. The FCC methodology properly includes only those costs booked to Account 593 in the maintenance carrying charge factor. Account 593 is more than generous and already includes costs related to overhead lines.

74. Fourth, and also relating to the CCF component of the rate formula, the APPA and WPUDA methodologies (as applied in the Saleba Report) inappropriately include additional administrative expense accounts (901-906) in the calculation of the administrative factor. These particular accounts are properly excluded from the FCC methodology because they relate to the utility's core electric service and have no cost-causative link to poles. Accounts 901-906 include, for example, expenses relating to customer service, meter reading, and collection services.⁹¹

⁸⁹ See *Id.* (“Even with the 15% reduction for non-pole appurtenances such as crossarms, this is still a very generous account, including the cost of towers, transformer racks and platforms.”)

⁹⁰ See *Id.* at ¶122 (“Accounts 580, 583, 584, and 588 are operational accounts to which electric utilities report expenses relating to the utility's core regulated business services, and not pole or conduit expenses. We will not include any portion of Accounts 580, 583, 584, 588 or 598 in the calculation of the maintenance element of the carrying charge rate for pole or conduit because the costs or expenses reported to these accounts do not reflect a sufficient nexus to the operating expenses and actual capital costs of the utility attributable to the pole or conduit attachment. The pertinent maintenance expenses are reported in Accounts 593 (poles) and 594 (conduit) and we include those in the calculation.”)

⁹¹The administrative expense accounts allowed by the FCC are more than generous. In fact, as I noted in my Initial Report, there are many costs contained within the allowed accounts that are not related to poles or pole attachments. See Initial Report, footnote 38.

VI. REVISED CALCULATIONS OF PACIFIC COUNTY PUD'S MAXIMUM LAWFUL POLE ATTACHMENT RENTAL RATES TO REFLECT A COST-CAUSATIVE ADJUSTMENT TO THE MAINTENANCE ELEMENT OF THE CARRYING CHARGE FACTOR FOR DISTRIBUTION POLES

75. As explained in my Initial Report, maximum lawful pole attachment rates using the FCC formula are calculated by multiplying the net bare pole cost by an annual CCF by a space allocation factor, where the CCF is comprised of five different expense factors - maintenance, depreciation, administrative, taxes, and overall rate of return, all expressed as a percentage of expense to net plant in service. As further explained, the appropriate net plant in service figure to be used in the denominator of the expense factor calculation for the various elements of the CCF will depend on the level of aggregation with which the relevant expense data reflected in the numerator of the calculation is tracked in the FERC reporting system or utility books of account. The important principle to follow is one of consistency between the level of aggregation of the expense data and the level of aggregation of the net plant investment figure.

76. In the process of reviewing Mr. Saleba's updated rate calculations, which as noted above, were calculated using costs for *both* transmission and distribution poles (notwithstanding the widely accepted use of distribution costs only given the prevalence of attachers on the latter), I discovered an inconsistency between the level of aggregation of the expense data and the level of aggregation of the plant investment figure in connection with the maintenance element of the CCF. As explained in my Initial Report, expenses relating to this element of the CCF are booked to Account 593 ("Maintenance of Overhead Lines"), which under FERC accounting rules tracks expenses associated with the following three *distribution* plant in service accounts: Account 364 ("Poles, Towers, and Fixtures"), 365 ("Overhead conductors and devices") and 369 ("Services"). Accordingly, the CCF for this element is appropriately calculated by dividing the amount of maintenance expense recorded in Account 593 by the net plant in service associated with each of these three individual accounts.

77. What I discovered in the process of reviewing Mr. Saleba's updated rate calculations, however, is that the PUD apparently also books transmission maintenance expenses to Account 593, rather than to the FERC account designated for transmission-related

maintenance expenses (Account 571). Specifically, the PUD appears to book maintenance expenses associated with the following two *transmission* plant accounts: Account 355 (Transmission Poles and Fixtures) and Account 356 (Transmission Overhead conductors and devices) to Account 593 rather than to Account 571. Accordingly, my earlier calculations contained an inadvertent mismatch between the maintenance expense figure in the numerator (which related to both transmission and distribution poles) and the net plant figure in the denominator (which related only to distribution poles). Absent a correction, the numerator of the calculation is overstated relative to the denominator, which produces an *overstatement* of the maintenance expense factor (since when you divide two numbers, the resulting number is directly related to the size of the numerator, i.e., the number you are dividing).⁹²

78. I have revised my rate calculations to correct for this mismatch by making a downward adjustment to the maintenance expense figure in the numerator to reflect expenses relating to distribution poles only, consistent with the net plant figure in the denominator. Specifically, I reduced the maintenance expense figure by an amount proportionate to the share of transmission-related pole investment to total pole investment associated with Account 593 under PUD accounting. The corrected CCFs and resulting maximum rental rates for distribution poles are summarized in Tables 1 and 2 on the following page. (Calculations are provided in Attachment 1).

⁹²For example, using 2008 data, in my original calculations, I divided the booked Account 593 expense of \$443,317 by the net pole plant for distribution poles of \$4,178,646 resulting in a maintenance expense factor of 10.61%. In my revised calculations, I divided an adjusted Account 593 expense of \$339,417 by the net pole plant for distribution poles of \$4,178,646 resulting in a maintenance expense factor of 8.12%. By comparison, Mr. Saleba calculates a maintenance expense factor of 7.07% under the FCC methodology by dividing booked Account 593 expense of \$443,317 by combined transmission and distribution net pole plant of \$6,270,575.

Table 1 Maximum Pole Rental Rates for Pre-June 12, 2008 Period Adjusted to Reflect Costs Associated with Distribution Poles		
Based on Twelve Months Ending December 31,	2006	2007
Net Investment Per Bare Pole	\$181.49	\$173.44
x Carrying Charges	39.93%	40.90%
x Space Factor [1/16' usable pole]	6.25%	6.25%
Maximum Pole Rental Rate*	\$4.53	\$4.43
*Calculated using FCC cable formula and data provided by the PUD. See Attachment 1.		

Table 2 Maximum Pole Rental Rates for Post-June 12, 2008 Period Adjusted to Reflect Costs Associated with Distribution Poles		
Based on Twelve Months Ending December 31,	2007	2008
Net Investment Per Bare Pole	\$173.44	\$170.21
x Carrying Charges	40.90%	43.41%
x Space Factor [1/16' usable pole]	6.25%	6.25%
= Maximum 3(a) Component	\$4.43	\$4.62
Net Investment Per Bare Pole	\$173.44	\$170.21
x Carrying Charges	40.90%	43.41%
x Space Factor [(1+24/3)/40' = 9/40' total pole]	22.50%	22.50%
= Maximum 3(b) Component	\$15.96	\$16.62
= Maximum 3(c) Rate = 1/2 3(a) + 1/2 3(b)	\$10.20	\$10.62

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: October __, 2009

Patricia D. Kravtin

**EXPERT REPORT OF
PATRICIA D. KRAVTIN**

Submitted:
*IN THE CIRCUIT COURT
OF THE THIRTEENTH JUDICIAL CIRCUIT
IN AND FOR HILLSBOROUGH COUNTY, FLORIDA
CASE NO. 06-00819*

December 30, 2009

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Attachments

- 1: Detailed Resume
- 2: List of Data and Information Considered in Forming Opinion
- 3: Description of the Carrying Charge Factor (CCF) Component of the FCC Rate Formula
- 4: TECO Continuing Property Records for Pole Plant Account 364 for 2000-2008
- 5: FCC Rate Formula Calculations for 2002-2009

I. QUALIFICATIONS

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. I have also provided expert testimony and reports in proceedings before the Federal Communications Commission (“FCC”), the Federal Energy Regulatory Commission (“FERC”), and before international agencies including the Canadian Radio-television and Telecommunications Commission, the Ontario Energy Board, and the Guam Public Utilities Commission. In addition, I have testified as an expert witness in antitrust litigation in federal district courts, and also before a number of state legislative committees. A detailed resume summarizing my educational background and previous experience, including a listing of the proceedings I have testified in and the reports and other publications I have authored, is provided in Attachment 1 to this report.
3. Over the past decade, I have participated in a number of state regulatory commission proceedings involving the various cost methodologies used to allocate the costs of incumbent local exchange carriers and electric utilities. I have also been actively involved in proceedings, both at the state and federal level, concerning implementation issues, including those related to cost allocation, in connection with the passage of the Telecommunications Act of 1996 (“Telecom Act”). One local network component, essential for the provision of competitive communications services, with which I am also very familiar, and have testified extensively on, is access to poles, ducts, conduits, and rights-of-way. At the federal level, I submitted initial and reply reports in the FCC’s current pole attachment rate proceeding, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission’s Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303 (“FCC 2008 Pole Proceeding”). In 2006, I submitted testimony and was subject to live cross-examination before the FCC’s Chief Administrative Law Judge, on issues pertaining to utility compensation for pole attachments in *In the Matter of Florida Cable Telecommunications Association, Inc., et. al. v. Gulf Power Company*, Initial Decision, FCC 07D-01, 22 FCC Rcd 1997 (2007) (appeal pending)(“*FCTA*”). Previously, I submitted declarations on pole attachment, conduit and rights-of-way issues before the FCC in a pole attachment rulemaking proceeding, CS Docket No. 97-98, and in a pole attachment complaint proceeding *Cavalier Telephone v. Dominion Virginia Power*, Case No. EB-02-MD-005. I have also testified on matters relating to the costing and pricing of utility and incumbent local exchange carriers’ pole

attachments in proceedings before state public utility commissions including the Public Utility Commission of Ohio (Case No. 08-709-EL-AIR et. al), the Arkansas Public Service Commission (Docket No. 08-073-R), the New Jersey Board of Public Utilities (Docket EO0511005), the District of Columbia Public Service Commission (Formal Case No. 1006), the New York Public Service Commission (Cases No. 02-M-1636 and No. 98-C-1357), the Georgia Public Service Commission (Docket 7061-U) and the South Carolina Public Service Commission (Docket 97-374-C), and in Canada before the Ontario Energy Board (RP-2003-024).

4. I am being compensated for the time I spend on this matter at my standard rate of \$385 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.

II. ASSIGNMENT AND SUMMARY OF OPINION

5. I was asked by counsel for Bright House Networks, LLC (“Bright House”) to review and respond to the Expert Report of William Barta submitted November 23, 2009 (“Barta Report”) on behalf of Tampa Electric Company (“TECO”). My report addresses the damages calculations provided in the Barta Report, and in particular, the pole attachment rates and interest charges upon which those damages calculations are based. As an investor-owned utility subject to FCC pole rate regulations, TECO is not permitted to charge third-party rental rates for cable and telecom attachments that are any higher than the just and reasonable maximum permissible rates properly calculated using the FCC rate formulas. Accordingly, any theoretical damages due TECO in connection with this litigation cannot themselves be calculated based on rates any higher than the maximum permissible rates that a correct application of the FCC formulas would produce.

6. As shown in my report, assuming that the FCC telecom rate formula properly applied to Bright House attachments (an issue my Report does not address), the rental rates for telecom attachments that TECO has developed and that form the basis of Mr. Barta’s calculations of alleged underpayments by Bright House *exceed* the properly calculated FCC maximum permissible rates. Similarly, the interest charges that Mr. Barta applies to the alleged underpayments exceed the interest rates permitted by the FCC in the case of utility and third party disputes pertaining to underpayments of pole attachment charges. Because both the amount of the potential underpayments for telecom attachments identified by Mr. Barta (i.e., the difference between the telecom attachment rates and the rates that Bright House paid TECO for pole attachments during the period subject to this litigation) and the interest charges Mr. Barta applies to those

underpayments are overstated relative to maximum permissible levels, the amount of damages calculated by Mr. Barta correspondingly overstate any theoretical damages that would be due TECO.

7. In addition, my report shows that the rates for cable attachments calculated by TECO (and upon which amounts paid by Bright House during this period were based) *exceeded* the maximum permissible FCC formula rate for cable attachments. Accordingly, in calculating the amount of damages that might theoretically be owed TECO in this matter, it is necessary to also take into account the amount of any such *overpayments* that Bright House made to TECO for those pole attachments subject to the cable rate. Specifically, the amount of any overpayments by Bright House for cable attachments over the period under dispute would properly be applied as an offset in the calculation of damages associated with any demonstrated underpayments for telecom attachments by Bright House for the same period.

8. As part of this assignment, I have calculated and provided in my Report the specific rate results applicable to the years 2002-2009, derived from a proper application of the FCC's formula methodology for cable and telecom attachments, including the use of an appropriate set of data inputs upon which the integrity of the FCC's formula methodology relies. My report focuses in particular on key pieces of input data that are the subject of dispute in a related complaint proceeding before the FCC, *Bright House Networks, LLC, Complainant v. Tampa Electric Company, Respondent*, File No. EB-06-MD-003 ("FCC Complaint Proceeding"). My report does not address the issue of which Bright House pole attachments are subject to the telecom rate pursuant to Section 224(e) of the Communications Act vis-à-vis those subject to the cable rate pursuant to Section 224(d).

9. In reaching my opinions, 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 to this report. I have considered various data and information in forming my opinions, including data available on the Federal Energy Regulatory Commission ("FERC") Form 1 for TECO, and in materials submitted by the parties in the above-mentioned FCC Complaint Proceeding, including TECO's continuing property records, plant accounting records, annual statistical reports, surveillance reports, and in the deposition questioning of TECO witnesses. A listing of the data and information I considered in forming my opinions is provided in Attachment 2 to this Report.

III. FCC POLE RATE FORMULA METHODOLOGY

10. Consistent with Section 224 of the Communications Act, the FCC pole rate methodology, applicable to both cable and telecom rate attachments, calculates a maximum annual pole attachment rent by taking the sum of the actual capital costs and operating expenses of the utility attributable to the entire pole, expressed on an annual basis, and apportioning those costs to the attacher based on an allocation of space on the pole. Operationally, the FCC formula methodology, applicable to both cable and telecom attachments, consists of the following three major components: (1) the net investment per bare pole, (2) a carrying charge factor (CCF), and (3) a space allocation factor (i.e., the percent of pole capacity attributable to the attacher). Expressed as an equation, the FCC formula methodology is as follows:

FCC Pole Rate Formula (for both cable and telecom) =

Net Bare Pole Cost x Carrying Charge Factor x Space Allocation Factor

11. Under the FCC rules, the cable and telecom formulas are calculated in exactly the same manner as to the first two components of the rate formula, i.e., the net bare pole cost and the carrying charge factor. Both of these components are calculated in a straightforward, but multistep process.

12. The net bare pole cost is calculated in the following four steps: First, the utility's *gross* investment in pole cost is determined based on amounts reported in the utility's books of account in Account 364 ("Poles, Towers and Fixtures").¹ Second, this gross investment amount is converted to a *net* investment figure by subtracting accumulated depreciation for pole plant and accumulated deferred taxes applicable to poles. Third, the net investment in *bare* pole plant is determined by making a further reduction (presumed to be 15% in the case of electric utilities) to remove amounts booked to Account 364 for "appurtenances," such as cross-arms, from which communications attachers do not benefit. The fourth and final step is to divide the net investment in bare pole plant figure by the total number of poles the utility has in service to derive a *per-unit* pole cost figure. It is this unitized net investment figure that the formula multiplies by the other two components of the formula (i.e., the carrying charge factor and the space allocation factor) to derive the maximum pole rental rate.

¹ Account 364 for poles is one of the detailed plant accounts that comprise the utility's primary general ledger Account 101 (Electric Plant in Service). See 18 CFR Ch. 1, Pt. 101, p. 348, which defines Account 101 as to "include the original cost of electric plant, included in accounts 301 to 399, prescribed herein, owned and used by the utility in its electric utility operations, and having an expectation of life in service of more than one year from date of installation, including such property owned by the utility but held by nominees."

13. The carrying charge factor (CCF) is used to convert the net cost per bare pole figure into an annual rental amount. The carrying charge factor is comprised of the sum of five different expense factors including maintenance, depreciation, administrative, taxes, and overall rate of return, each expressed as a percentage of expense to net plant in service. The appropriate net plant in service figure used to calculate the various elements of the CCF will depend on the level of aggregation with which the relevant expense data used in the numerator of the calculation is tracked in the FERC reporting system or utility books of account. The important principle to follow is one of consistency between the level of aggregation of the expense data and the level of aggregation of the net plant investment figure. Once calculated, these five expense elements are then summed together prior to being multiplied against the net cost per bare pole component. For example, if the carrying charge calculations yield 5% for each of the five elements, the overall carrying charge factor would be 25%. The derivation of the five elements of the carrying charge factor under the FCC methodology is described in more detail in Attachment 2 to this report.

14. The one place where the FCC cable and telecom formulas differ is in the calculation of the space allocation factor, and in particular, in the manner in which the telecom formula allocates the costs associated with the *unusable* space on the pole. The FCC cable formula allocates the total costs of the pole (i.e. costs associated with *both* usable and unusable space) in proportion to an attacher's direct use or occupancy of total usable space on the pole. Expressed as an equation, the FCC cable formula is as follows:

$$\text{FCC Cable Rate Formula} = \text{Net Bare Pole Cost} \times \text{Carrying Charge Factor} \times \left[\frac{\text{Space occupied by attacher}}{\text{Usable Space on Pole}} \right]$$

Using the FCC's rebuttable assumptions (which both TECO and Bright House have accepted) of an average 37.5 foot joint-use pole, 1 foot of space per communications attachment, and the availability of 13.5 feet of usable space on the pole, the appropriate space allocator factor for the cable rate formula is 1/13.5 or 7.41%.²

15. Whereas the FCC cable formula assigns costs relating to the entire pole -- including both usable and unusable space -- on the basis of a proportionate-use allocator, the FCC telecom methodology assigns the

² See *In the Matter of Amendment of Rules and Policies Governing Pole Attachments*, Report and Order, 15 FCC Rcd 6453 at ¶ 16 (Apr. 3, 2000) ("*FCC Fee Order*"). (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.")

cost of usable space on the pole based on the proportionate share of usable space occupied by the attacher (the exact same as the cable formula) but assigns costs relating to the unusable space on the pole using a per-capita allocator. Specifically, as statutorily prescribed, the FCC telecom methodology takes 2/3 of the unusable space on the pole and divides that equally by the number of attaching entities. Expressed as an equation, the FCC telecom formula is as follows:

FCC Telecom Rate Formula = Net Bare Pole Cost x Carrying Charge Factor x [Usable Space Percentage + Unusable Space Percentage] where:

Usable Space Percentage =

(Space occupied by attacher / Usable Space) x (Usable Space/Pole Height); and

Unusable Space Percentage = 2/3 x (Unusable Space / Pole Height) x (1/Number of Attachments)

16. Using the same FCC's rebuttable assumptions presented above for the cable formula (i.e., a 37.5 foot joint-use pole, 1 foot of space per communications attachment, and 13.5 feet of usable space on the pole), the usable space percentage of the telecom space allocator factor equals $(1/13.5) \times (13.5/37.5)$ or 2.67%. Given these same assumptions, there are 24 feet of unusable space to apportion, since unusable space under FCC rules is defined as the space on the pole other than the usable space $(37.5 - 13.5 = 24)$, consisting of the 6 feet of the pole that is below ground and the 18 feet of the pole above grade required to clear possible interference and obstacles and on which attachments cannot be made. Further assuming the FCC presumptive number of 5 attaching entities in urban areas³ (which in my opinion, as discussed further below, is the appropriate assumption for TECO's service area) the unusable space percentage equals $(2/3) \times (24/37.5) \times (1/5)$ or 8.53%. Adding the usable and unusable space percentages together $(2.67\% + 8.53\%)$ together produces a total space allocator factor for the telecom formula of 11.20%.

17. The overarching concept underlying the two FCC formulas is that they can be applied in a straightforward manner, using publicly available information as reported in the FERC uniform reporting system (i.e., FERC Form 1) where available, such that it can be updated annually with a minimum of private, administrative effort, and little if any regulatory involvement. There are two exceptions to data

³ See *FCC Consolidated Partial Order on Reconsideration ("FCC Recon Order")*, CS Docket 97-98, 97-151, FCC 01-170 (May 25, 2001) at ¶67 ("we provide utilities the option of using our presumptive averages [3 for rural and 5 for urban]... or developing averages for two areas: (1) urbanized (50,000 or higher population), and (2) non-urbanized (less than 50,000 population)").

being publicly available in the FERC reporting system, where data inputs must be obtained from the books of the utility: the depreciation rate for poles, and the number of poles. In addition, in some instances, the FCC pole attachment formulas may rely on other pieces of investment and expense data utilities maintain in, or derive from, their internal accounting books and records at a level of disaggregation below that publicly available in the FERC uniform reporting system. For example, in this case, TECO has provided data at the detailed plant account level for accumulated depreciation and deferred income tax amounts used in the calculation of net investment for poles (Account 364) as well as other plant accounts used in the development of the carrying charge factor. To the extent this additional data has been provided by the utility, and is not subject to dispute, it is reasonable to utilize the more disaggregated data in the formula rate calculation.

18. It is a testament to the straightforward nature of the FCC formula methodology that there is effectively little dispute between TECO and Bright House as to the basic mechanics of the formula. Rather, the disputes that have arisen center on the appropriate values of a few, but nonetheless key pieces of input data. As with any formulaic approach, the accuracy and integrity of the formula depends on the accuracy and integrity of the underlying data inputs. Plus, because the FCC formulas themselves are not readily subject to manipulation, there is the natural incentive on the part of the pole owning utility to increase the formula rate results through manipulation of key data inputs that can significantly affect the rate results. For this reason, it is very important that the data used in the formula, and this is particularly true of data provided by the utility that are not otherwise publicly reported, be subject to careful scrutiny and held to a high standard as to their reliability, accuracy, consistency, and ability to be verified and replicated.

IV. DISPUTED INPUT DATA USED IN TECO FORMULA RATE CALCULATIONS

TECO's Input for the Number of Poles is Based on a Flawed Field Survey Count and is Not a Reliable Substitute for TECO's Historical Audited CPR Pole Data.

19. As described above, the number of utility poles in service is used to calculate the first component of the FCC formula, i.e., the net bare pole cost. Specifically, this input is used to divide net bare pole investment in order to express total net bare pole investment as a per-unit cost. Accordingly, the resulting net bare pole cost will vary inversely with the number of poles, i.e., the smaller the number of poles, the larger the net bare pole cost, and in turn, the larger the maximum pole rate, which as indicated above, is simply the product of the three basic formula components (carrying charge factor and space allocator factor being the other two). As mentioned previously, the number of poles is one of the few pieces of

input data not publicly reported on the FERC Form 1. Rather, it is a number that must be obtained from the books of the utility.

20. The dispute that has arisen in connection with this litigation involves TECO's decision to use a pole count number taken from a field survey of poles conducted by an outside contractor in 2001, rather than use the pole counts identified in actual historical records kept by the utility known as "continuing property records (CPR)."⁴ The primary source of the controversy is that the field survey upon which TECO relies identified a significantly smaller number of poles, i.e., 299,463, representing only 89% of the 334,743 identified on TECO's historical records. The lower pole count figure has the effect of significantly increasing TECO's per unit pole investment by as much as 10% to 12%. Table 1 below compares the dollars of gross pole investment per pole using the historical pole counts from TECO's continuing property records with those computed using the pole counts derived by TECO based on the 2001 field survey data and as grossed up by TECO for purposes of its formula calculations for successive years.⁵

Data Year Ending	No. Poles per CPR	No. Poles per Survey Data	Gross Pole Investment Per CPR	\$ Per CPR Pole	\$ Per Survey Pole	% Diff \$ Per Pole
2001	334,743	299,463	\$144,544,763	\$432	\$483	12%
2002	337,397	302,117	\$150,518,269	\$446	\$498	12%
2003	339,064	303,784	\$155,540,472	\$459	\$512	12%
2004	339,118	303,837	\$160,277,124	\$473	\$528	12%
2005	342,200	306,924	\$173,126,884	\$506	\$564	11%
2006	343,092	312,490	\$181,005,860	\$528	\$579	10%
2007	344,107	313,506	\$190,852,126	\$555	\$609	10%
2008	344,137	313,537	\$201,121,802	\$584	\$641	10%

21. While field surveys, if properly designed and implemented, can provide a useful source of information regarding a utility's pole assets, there are several fundamental problems with TECO's decision to rely on the field survey in lieu of its historical, audited accounting records as the basis of the

⁴ The CPR is used by a utility to track its inventory of plant assets, in terms of original cost and quantities, and recording on an annual basis the additions, transfers, and retirements by specific plant account, such as Account 364 for poles.

⁵ The field survey data identifies a pole count figure as of the date of the survey (2001). To derive estimated pole counts for following years, TECO adds to the survey figure, the annual net pole additions identified in the CPR for each successive year. For example, to derive the pole count for 2002, TECO added the number of net additions identified in the CPR of 2,654 to the 299,463 poles counted in the survey for a total of 302,117. For 2003, TECO adds the number of net additions for 2003 per the CPR to the latter number, and so forth for continuing years.

pole count for purposes of the rate formula calculation. As shown in Table 1 above, the effect of using a lower pole count figure is a direct (and proportional) increase in the investment per pole figure and correspondingly the pole rate.⁶ Accordingly, the use of a figure that significantly diverges from the historical records of the utility is appropriately subject to a rigorous level of scrutiny. In my opinion, for the reasons discussed below, TECO's survey figure does not provide close to the same level of reliability and validity as the pole counts tracked and identified on a yearly basis according to height and type of pole in TECO's audited continuing property records.

22. First, it is noteworthy that even TECO was surprised at the smaller number of poles counted by the contractor.⁷ TECO apparently had expected the contractor to find more poles not less,⁸ and its witness in deposition questioning was not able to articulate a compelling explanation for the discrepancy between the snapshot field survey and its historical records.⁹ Further, significant questions have been raised about the instructions given to the contractor regarding the purpose of the survey. Specifically, there is evidence to indicate the survey was focused on the nature of attachments to the pole and safety issues including possible code violations (the finding of which may often generate or give rise to additional fees and penalties imposed by the utility) rather than the accuracy of the pole count.¹⁰ The former is actually quite typical of these types of field audits. Moreover, and related to the true focus of the survey on potential safety and code violation issues pertaining to the attachments on the pole, is the fact that the utility failed to provide the contractor with detailed mapping and other pertinent background information specific to the location of the utility's pole network of the type that likely would have aided the contractor in finding a higher percentage of utility poles.¹¹

23. Perhaps even more problematic for purposes of the pole rate formula calculation, it does not appear that TECO has reconciled the results of the field survey with the dollars of gross pole investment recorded

⁶ For example, using year end 2001 data, the first year the survey pole count figure was substituted for the pole count reported in the CPR, the change in this one input alone from the CPR number of 334,743 to the survey number of 299,463 poles has the effect of increasing the telecom pole rental rate calculated by TECO from \$11.23 to \$12.10, or an increase of 7.7%. Using 2006 data (after the statutory phase-in of the telecom rate), the resulting increase in the telecom rate attributable to the lower pole count alone was from \$18.97 to \$20.82, or an increase of 9.8%.

⁷ Deposition of Kristina Angiulli, May 12, 2009 at 72.

⁸ Deposition of Kristina Angiulli, May 13, 2009, at 127.

⁹ Id. at 127-128 (“[The contractors] were certainly incented to find more poles but they didn’t. They simply didn’t find more poles. That’s the only explanation I have for the discrepancy.”).

¹⁰ Deposition of Kristina Angiulli, May 12, 2009, at 73-75. See also Exhibit BHN-22 (TECO 004201) containing Letter dated December 27, 2000 from Rhoda Fitzpatrick, Manager Energy Delivery Construction Coordination Services, TECO, to Mr. Jack Cooper, Moffat Communications (“The purposes of the inspection project is to verify the number of attachments on our system, identify the attachment owners, identify code violations, and to verify TEC attachments on non-TEC poles. During the inspection project we will be focusing on workman safety issues related to use of poles as well as the reliability of our system and the effects attachments have on our poles. Our intention is to be in compliance with the mandates of the NESC.”)

in TECO's historical records. This is an overarching problem because the dollars of gross pole investment recorded in TECO's historical continuing property records - and which TECO relies on in the calculation of the net bare pole cost - have a direct correspondence with the quantities of poles that have been recorded over the years in detailed fashion in the CPR. Attachment 3 to this report contains a copy of TECO's CPR for the pole plant account (364) for the years 2000 to 2008. As shown in Attachment 3, within the CPR, pole investment and quantities are tracked according to the defining pole characteristics of the physical inventory of poles in service (i.e., by height and type including wood, steel, concrete, and fiberglass). Given the direct correspondence between investment dollars posted to Account 364 for poles and the quantity of poles posted to Account 364, internal consistency between the quantity of poles and the underlying pole investment is essential to the integrity of the pole rate formula calculation.

24. There is a significant disconnect in this case between TECO's reliance on the 2001 field survey (in lieu of its audited CPR data) as the source of the pole count (used as the denominator) in the calculation of the net bare pole cost component of the rate formula, and its continued reliance on the CPR data as the source of other key data inputs to the net bare pole cost calculation. Specifically, TECO relied on the CPR data for both the dollars of gross pole investment (used as the numerator) in the calculation of the net bare pole cost, and for the year-over-year additions to the pole count used to gross up the number of poles (from the 2001 field survey) for the years 2002 to the present.¹² In doing so, TECO relies on the underlying pole investment amounts corresponding to the *higher* number of poles identified in the utility's continuing property records with the *lower* number of poles found in the field survey. This results in a fundamental mismatch between the two principal data inputs (i.e., the numerator and denominator respectively) used in the calculation of the net bare pole cost component of the rate formula, the result of which is a higher net bare pole cost (since the higher the numerator relative to the denominator, the larger the value of that fraction).

25. Moreover, to the extent TECO truly believed in the accuracy of its 2001 field survey with respect to its number of poles in service, one would have expected TECO to have made adjustments to its continuing property records to reflect the revised pole counts for the years 2001 to the present. Significantly, TECO has provided no evidence it made (or is considering making) any adjustments to its pole account records as pertains to either the number of poles or to the dollars of the underlying pole investment corresponding to those pole counts, as would be required to reconcile the results of its field survey to its audited continuing property records. Without this kind of reconciliation, it is as if TECO is

¹¹Deposition of Kristina Angiulli, May 12, 2009, at 81-83, 128-130

¹²Deposition of William Ashburn, May 12, 2009, at 101-102, 129.

effectively maintaining two distinct sets of books, one for accounting purposes, and one for purposes of calculating the rate formula.

26. There is no basis to assume the pole count taken from TECO's historical continuing property records for pole plant (Account 364) is inaccurate, particularly in light of the steady pattern of pole investment over the past decade. Indeed, to do so would call into question the integrity of not only TECO's audited continuing property records for Account 364 for poles, but TECO's internal accounting system to which the CPR for Account 364 is interconnected. TECO, however, has affirmed the accuracy of its continuing property records. According to its witness in deposition testimony:

I can talk about the continuing property records in a general sense and can tell you that they're audited by outside firms [and] by the commission. The company has a very good accounting department that keeps track of those records...we have accountants who review the work orders that come in and then produce the property units for purposes of putting it into the property records and audit them, review them, those kinds of things.¹³

27. As shown in Figures 1 and 2 below, both the amounts of gross pole investment and the quantity of poles recorded in the CPR for Account 364 (and to date, unadjusted by TECO) reveal a stable pattern over time, as one would expect for a long-lived asset such as poles not characterized by technological obsolescence. By contrast, as shown in Figure 2 below, TECO's field survey data would indicate an unexplained discontinuity in the pole count (as depicted on the bottom line of Figure 2) in contrast to the smooth trend of the audited historical CPR pole data both in regard to the pole count (as depicted on the top line of Figure 2) and the underlying pole investment dollars (as shown in Figure 1).

¹³ See Deposition of William Ashburn, May 12, 2009, at 80-81.

Figure 1

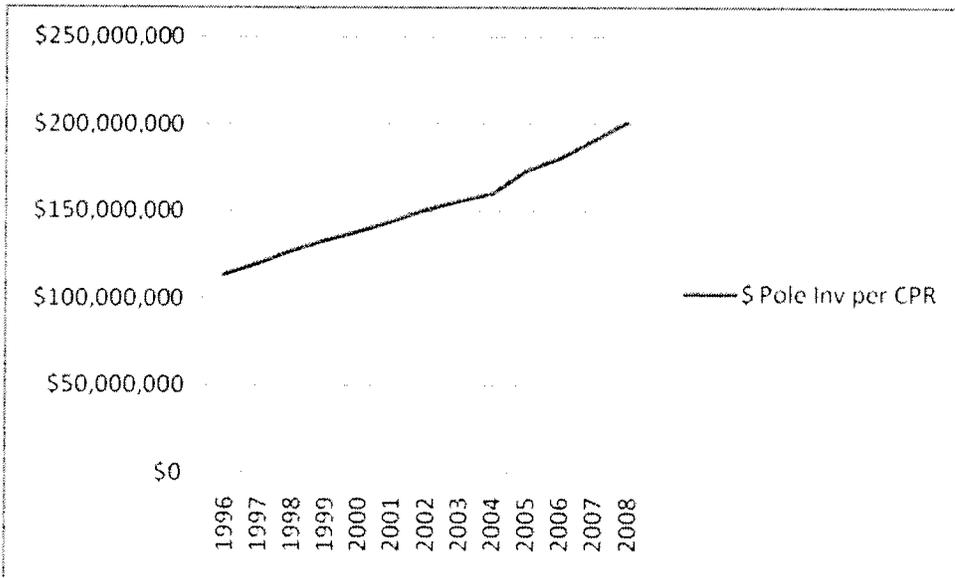
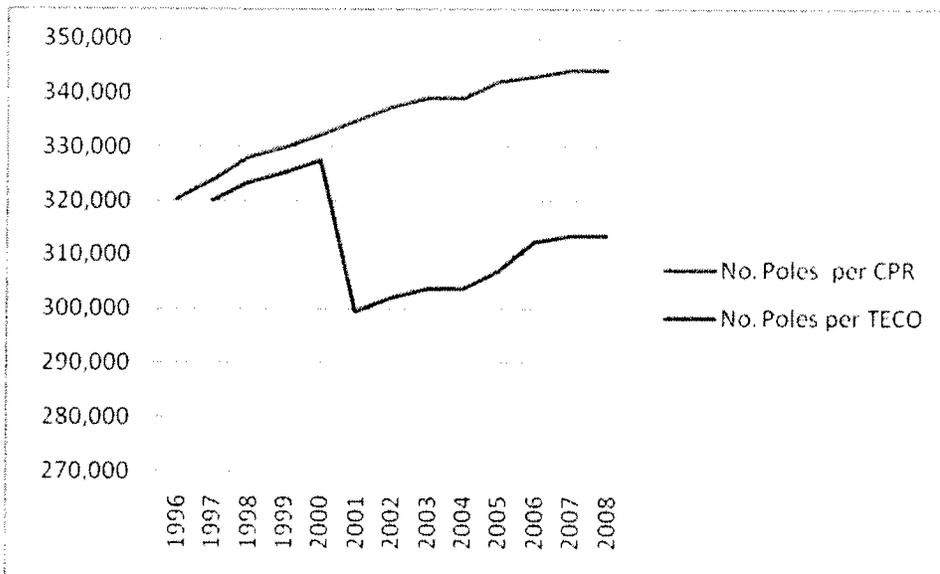


Figure 2



28. For the reasons set forth above, it is my opinion that the appropriate pole count figure to use in the calculation of the formula rate is the historical audited number from TECO's continuing property records, consistent with the underlying pole investment amount recorded in Account 364 and with the additions to

pole plant recorded in Account 364 over this period, both of which TECO continues to rely upon in its own rate calculations, and as maintained on TECO's internal books of accounts. Since Mr. Barta's damages calculations are based on TECO's telecom rate calculations, TECO's reliance on the lower pole count from the incomplete, unverified, and unreconciled field survey data, by producing erroneously (and impermissibly) high pole rates, will have the effect of overstating any potential damages that would be due TECO in connection with this litigation.

TECO's Input for the Number of Attaching Entities, Also Derived from the Flawed Field Survey, is Not a Reliable Substitute for the FCC's Presumptive Number.

29. As described above, the space allocation factor component of the telecom formula (in particular, the unusable space percentage of that formula) requires as an input the number of attaching entities on the pole. Specifically, the number of attaching entities is used to divide unusable space on the pole, in order to apportion the costs of that space on a per-capita basis as required by statute.

30. The dispute that has arisen in connection with this litigation involves TECO's decision to use a number of attaching entities of 2.05 or 2.08, based on the field survey of poles identified in the preceding section, a number less than half the FCC's presumptive number of attaching entities of 5. In my opinion, the average number of attaching entities used by TECO is not a reliable figure, since it was derived from a field survey, as discussed above, that itself suffers from significant reliability problems. Most notably, while intended to be a complete audit of the utility's distribution poles, the field survey does not come close to reconciling the total number of distribution poles recorded in the actual audited accounting records of the company.

31. While the FCC does permit the use of a statistically valid sampling of poles, where a full audit is not practical, the field survey upon which TECO relies was not designed to be a statistically valid sample of the total population of poles. Since the field survey commissioned by TECO was designed to be a full audit, there is no reason to believe that the significant number of poles excluded from the survey was done so on a purely random basis. Accordingly, there is no reason to believe that the average number of attaching entities derived from the survey data would necessarily reflect a statistically reliable representation of the various sub-populations of poles on which differing number of attaching entities may be present. Given the TECO number of approximately 2 entities falls well short of the FCC presumptive number of 5 attaching entities for urbanized areas – indeed the TECO number falls below the FCC presumptive number of 3 attaching entities for rural areas, there is every reason to be suspect of the TECO number, given the characteristics of TECO's service area. Indeed, given that FCC rules require

the counting of the pole-owning utility as an attaching entity, TECO's number allows for the presence, on average, of only *one* other entity on TECO's joint-use poles in addition to the utility itself - the absolute *minimum* number for a joint-use pole even in the remotest of undeveloped, scarcely populated rural areas.

32. TECO itself has acknowledged one critical flaw in the manner in which it determined its number of attaching entities, which in and of itself renders its number of attaching entities figure invalid, and helps to explain its unreasonably low values of 2.05 or 2.08. Specifically, TECO acknowledges it incorrectly "included in its determination of the average number of attaching entities poles to which only Tampa Electric is attached."¹⁴ TECO provides what it purports to be a corrected number of attaching entities of 2.62.¹⁵ However, even the 2.62 figure is not statistically reliable in that, by TECO's own admission, it was not obtained from a valid "*sampling* of the pole inventory."¹⁶ TECO asserts the number was derived from a 'study of all poles in the field,' but as discussed in the previous section of this report, TECO's claim is belied by the significant unexplained divergence of the surveyed poles with the number of poles identified in TECO's historical audited accounting records.

33. TECO claims that "[g]oing forward, [it] will revise its methodology for calculating the average number of attaching entities for purposes of determining the telecom rental rates."¹⁷ It is therefore somewhat perplexing that the telecom rates upon which its expert Mr. Barta bases his calculations of damages in this litigation are nonetheless based on the lower *incorrect* numbers of 2.05 or 2.08, notwithstanding the company's own admission of error. The use of the erroneously low number of attaching entities produces an erroneously high telecom rate, providing one more reason, among the several I point out in this report, why TECO's calculated telecom rates are overstated, and accordingly, why the calculations of damages based on those rates are similarly overstated.

34. In summary, because the average number of attaching entities has a significant impact on the pole rental rate calculated using the FCC telecom formula, and it is not a publically reported number, this component is especially subject to controversy. In my experience, this is one way for pole owners to manipulate the formula rate result, i.e., by seeking to use a lower number of attaching entities.¹⁸ (The lower the number of attaching entities, the higher the rate, since under the telecom formula the pole costs

¹⁴See Tampa Electric Company's Response to the Supplement to Pole Attachment Complaint of Bright House Networks, LLC, September 4, 2009, at 12.

¹⁵ Id.

¹⁶ Id.

¹⁷ Id.

associated with unusable space on the pole are divided among the attaching entities). Given the reliability problems with TECO's field survey discussed above, in my opinion, the number of attaching entities derived from that survey cannot be relied upon with any reasonable degree of confidence. The FCC's presumptive number of 5 for urbanized areas is an appropriate and widely-accepted default number to use for purposes of the formula calculation. Indeed the FCC's presumptive number of attaching entities was developed by the FCC to apply in just such cases where there is no other reliable source of data available from the utility or other party.¹⁹ Since Mr. Barta's damages calculations are based on TECO's telecom rate calculations, TECO's reliance on the lower number of attaching entities derived from the incomplete, unverified, and unreconciled field survey data, by producing erroneously (and impermissibly) high telecom rates, will have the effect of overstating any potential damages that would be due TECO in connection with this litigation.

TECO's Input for the Rate of Return Element of the CCF is Erroneously Based on the Cost of Equity Alone, Rather Than the Overall Rate of Return Authorized by the State Commission.

35. As described in the previous section of this report (see also Attachment 2 to this Report), the carrying charge factor component of the rate formula includes a rate of return element. Under FCC guidelines, the applicable rate of return is the rate of return authorized by the state regulatory agency for intrastate services of the utility, where available.²⁰ Where none is available, an FCC default rate of return may be used. In this case, there is an authorized intrastate rate of return available for purposes of calculating the FCC formula rates, as determined by the Florida Public Service Commission (FPSC).

¹⁸ For example, using year end 2006 data, the change in this one input alone from the FCC presumption of 5 to TECO's number of 2.08 has the effect of increasing the telecom pole rental rate calculated by TECO from \$10.06 to \$20.82, an increase of 107%.

¹⁹ See *FCC Recon Order* at ¶¶70-72 (footnote omitted). ("We are now persuaded that utilities and attaching entities would benefit from our providing presumptive averages for their use. Our establishment of presumptive averages will expedite the process and allow utilities to avert the expense of developing location specific averages. As with all our presumptions, either party may rebut this presumption with a statistically valid survey or actual data.

Based on the expanded record, we establish presumptive average numbers of attaching entities in a non-urbanized (less than 50,000 population) area to be three (3) attaching entities, based on information presented in the record and the expectation that on a pole or in a conduit, for instance, there would be electric, telephone and cable attachers. It is estimated that cable systems now provide access to cable television services to over 97% of all households with a television. Electric power and telephone service is even more universal. The record supports a presumptive average of three attaching entities in non-urbanized areas.

In an urbanized area that is more densely populated (50,000 or higher population), more developed commercially than a non-urbanized area, and in which we expect both residential and business commercial competition to flourish, we set a presumptive average number of attaching entities at five (5) to reflect the inclusion of, but not limited to, the following possible attaching entities: electric, telephone, cable, competitive telecommunications service providers and governmental agencies. Advanced telecommunications capability is being deployed throughout the country. As noted above, competitive services are increasing. The record supports a presumptive average number of five attachers in urbanized areas.")

36. The dispute that has arisen in connection with this litigation involves TECO's decision to use only the cost of equity component of the state authorized rate of return when calculating the cable rate formula rate for all years but one, and even higher rates when calculating the telecom formula. Following well-established principles for rate of return regulation, the overall return on capital for a utility is computed as a weighted average of the two primary components of capital costs, namely debt and equity, according to the ratio of debt to equity costs of the utility. Because the cost of debt is generally much lower than the cost of equity capital, reliance on the latter alone will necessarily produce a return element higher than the overall cost of capital which is the weighted average of the two. The higher return element in turn produces a higher overall carrying charge factor and correspondingly a higher formula rate.²¹

37. Significantly, TECO has offered no valid justification for the numbers it chose to use in its formula calculations for the rate of return element, either as to its reliance on a number based strictly on the equity component of the overall return for its cable formula calculations, or the higher and inconsistent return numbers it used in its telecom formula calculations vis-à-vis its cable formula calculations.²² The FCC methodology could not be more clear in terms of the return element being based on an *overall* return on capital taking into account *both* debt and equity components, either as authorized by the state regulatory agency or using the FCC interstate return.²³ Moreover, as described earlier, under the FCC's rules, the carrying charge factor in the cable and telecom formulas are identical. Quite simply, there is no valid economic or regulatory policy basis for the rate of return inputs TECO has used in its formula calculation.

38. TECO has attempted to justify its seemingly arbitrary inputs for the return element of the carrying charge by citing to the FPSC's decision regarding the cost of equity component of the overall rate of return, and noting the various rate of return figures used by TECO in its rate calculations fall at or below

²⁰ See *FCC Fee Order* at ¶76.

²¹ For example, using year end 2006 data, the change in this one input alone from the applicable authorized state rate of return of 7.89% to the 11.75% return figure TECO used in its calculations has the effect of increasing the telecom pole rental rate calculated by TECO from \$18.80 to \$20.82, an increase of 10.8%.

²² See Deposition of William Ashburn, May 12, 2009, at 88 (Regarding TECO's use of a 12.25% return for the telecom rate calculation for the year 2002: "I reviewed this in anticipation of this deposition and I cannot find the justification or support for where that number came from."); at 93-94 (Regarding TECO's use of the midpoint of the range of return for common equity: "It was how we read the orders from the FCC about what should be used.... Other than reading the various documents, I don't recall. We may have inquired with some other people, I don't recall though").

²³ See *In re Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, 5 FCC Rcd 7507 (1990) (describing the equivalent process followed by the FCC in arriving at an authorized return applicable to interstate services: "In this Order we analyze the cost of debt and capital structure issues separately from the cost of equity issues. From these analyses we determine an embedded cost of debt, a debt/equity ratio, and a range of reasonable estimates of the cost of equity. We combine these components to determine a range of reasonable estimates of the overall weighted average cost of capital for interstate access service. After identifying this 'zone of reasonableness,' we then decide, based on policy considerations, where within that zone to prescribe the unitary rate of return.").

allowed values.²⁴ Remarkably, TECO appears to confuse the FPSC's reasoned findings on the utility's return on equity (a major component of the overall return on capital) with the FPSC's ultimate responsibility to set an overall rate of return which the utility is actually authorized to earn. That the FPSC devoted relatively more attention in its deliberations to the equity component of the overall return is to be expected, as determination of that component is not nearly as straightforward as the determination of the average cost of debt for a utility.²⁵

39. Table 2 below compares the rates of return used by TECO in its pole rate calculations for cable and telecom attachments as compared with the appropriate applicable overall authorized rate of return for TECO intrastate services set by the FPSC as reported in earnings surveillance reports filed by the utility. As is not uncommon, the FPSC allows for a range of allowed values for the return on equity component of the utility's overall cost capital, encompassing a low point, midpoint, and high point. For purposes of this comparison, and my own pole rate calculations (see Attachment 5 to this report), the authorized rate of return I use is based on the midpoint value of the allowed range. In my opinion, use of an overall rate of return calculated based on the midpoint of the allowed range for the equity component is a reasonable approach to follow, barring specific considerations which would support use of the high or low value of the allowed range. That said, I believe using the midpoint value of the authorized rate of return favors the utility, given current conditions in financial markets suggest a downward trend for returns on capital in recent years.

40. As in the case of the number of attaching entities, TECO has acknowledged some part of its error, agreeing "there should be no difference between the rate of return carrying charge used in the cable rate and the rate of return carrying charge used in the telecom rate."²⁶ Similarly, TECO notes "[g]oing forward, Tampa Electric will correct this inconsistency."²⁷ The problem, once again, is that the telecom rates upon which TECO's expert Mr. Barta bases his calculations of damages in this litigation are nonetheless based on the inconsistently higher rates of return, notwithstanding the company's own admission of error. Accordingly, TECO's reliance on the higher return on equity figures, by producing erroneously (and impermissibly) high pole rates, will have the effect of overstating any potential damages that would be due TECO in connection with this litigation.

²⁴ See Tampa Electric Company's Response to the Supplement to Pole Attachment Complaint of Bright House Networks, LLC ("TECO Response"), dated September 4, 2009, submitted in the FCC Complaint Proceeding, File No. EB-06-MD-003, at 9-10.

²⁵ Whereas determining the cost of debt is generally a straightforward calculation based on interest rates applicable to utility borrowing, the cost of equity involves analysis of a number of qualitative factors such as expected growth rates and dividends, risks, investor expectations etc., which is why regulators often proscribe a range of reasonable rates for this component, as is the case in Florida.

²⁶See TECO Response at 10.

Table 2 Comparison of TECO's Return Input with Applicable State Authorized Rate of Return			
	Applicable State Authorized Rate of Return	TECO Rate of Return Input Cable Formula	TECO Rate of Return Input Telecom Formula
2001	8.22%	8.22%	12.25%
2002	8.38%	11.75%	12.25%
2003	8.35%	11.75%	12.25%
2004	8.27%	11.75%	12.25%
2005	8.02%	11.75%	11.75%
2006	7.89%	11.75%	11.75%
2007	7.90%	11.75%	11.75%
2008	8.33%	11.75%	11.75%

TECO's Input for the Maintenance Element of the CCF is Improperly Calculated Using a Partial Amount of FERC Account 369 Investment, Rather than the Total Amount as Directed.

41. As described in the previous section of this report (see also Attachment 2 to this report), the carrying charge factor component of the rate formula includes a maintenance element. Pursuant to FCC rules, that element is calculated by dividing the amount of maintenance expense recorded in Account 593 ("Maintenance of Overhead Lines"), by the net plant in service for the following three individual plant accounts associated with the expenses booked to Account 593: Account 364 ("Poles, Towers, and Fixtures"), Account 365 ("Overhead conductors and devices") and Account 369 ("Services").

42. The dispute that has arisen in connection with this litigation involves TECO's decision to use only a portion of Account 369 net investment in its calculation of the maintenance element. By doing so, TECO reduces the pool of net investment over which the associated maintenance expenses are spread, resulting in the calculation of a higher maintenance element, which in turn produces a higher overall carrying charge factor and correspondingly higher pole attachment rate.²⁸ TECO offers no clear explanation of why it made the decision to use only a portion of Account 369 net investment. In deposition questioning,

²⁷ Id.

²⁸ For example, using year end 2006 data, the change in this one input alone, i.e., calculating this element based on the partial allocation of net investment in Account 369 as TECO has done rather than the total net investment in Account 369 as directed by the FCC, has the effect of increasing the telecom pole rental rate calculated by TECO from \$20.02 to \$20.82, an increase of 4.0%.

TECO's witness asserts the utility's decision was based on "new understanding of what the FCC requirements were," although the witness had no first-hand knowledge of any FCC ruling on the matter.²⁹ In fact, the FCC has been consistent in its finding that the *entirety* of Account 369 net investment be included in the maintenance factor of its pole rate formula calculations.³⁰

43. TECO attempts to rationalize its decision to vary from the FCC methodology by noting the portion of Account 369 net investment it included was based on the sub-account related to overhead distribution (as opposed to underground distribution, i.e., conduit).³¹ However, the logic of that rationale does not hold up either, as the FCC applies the identical methodology in its calculation of the rental rates applicable to conduit, i.e., it similarly divides the corresponding maintenance expense account for conduit (Account 594) by the entirety of Account 369).³² Accordingly, under the FCC methodology, neither overhead nor underground distribution is allocated a disproportionate share of maintenance expenses associated with that account.

44. In a recurring theme, TECO acknowledges its adjustment to Account 369 is inconsistent with FCC rules and states that "going forward [it] will use the entire Account 369 in calculating the maintenance element of the carrying charge."³³ Yet, as is the case with TECO's other admissions of error, the telecom rates upon which TECO's expert Mr. Barta bases his calculations of damages in this litigation include a carrying charge factor containing the incorrectly calculated (and overstated) maintenance element, the result of which are erroneously (and impermissibly) high pole rates, and correspondingly an overstatement of any potential damages that would be due TECO in connection with this litigation.

²⁹ Dep. of William Ashburn, May 12, 2009, at 72-75 (Q: Do you know whether the FCC in fact has ever approved the use of a partial Account 369 in the denominator of the maintenance component? A: I don't know.)

³⁰ See FCC Recon Order at ¶¶ 117-118: ("Account 593 (maintenance of overhead lines (Major only)) includes all the cost of labor, materials used and expenses incurred in the maintenance of overhead distribution line facilities, the book cost of which is includible in Account 364 (poles, towers and fixtures), Account 365 (overhead conductors and devices), and Account 369 (services). In our calculation we include the net investment for all three accounts to determine the portion of Account 593 attributable to Account 364.")

³¹ See TECO Response at 7.

³² See FCC Recon Order at ¶118 ("This same reasoning [for including the net investment for accounts 364, 365, and 369 for poles, see footnote 30 supra] applies to Account 594 in the conduit context. Account 594 (maintenance of underground lines (Major only)) includes the cost of labor, materials used and expenses incurred in the maintenance of underground distribution line facilities, the book cost of which is includible in Account 366 (underground conduit), Account 367 (underground conductors and devices), and Account 369 (Services).")

³³ See TECO Response at 8.

TECO's Input for the Maintenance Element of the CCF Improperly Includes Expenses Booked to FERC Account 590, Rather Than Only Those Booked to Account 593 as Directed.

45. As mentioned above, pursuant to FCC rules, the maintenance element of the carrying charge factor is calculated by dividing the amount of maintenance expense recorded in Account 593 ("Maintenance of Overhead Lines"), by the net plant in service for the following three individual plant accounts associated with the expenses booked to Account 593: Account 364 ("Poles, Towers, and Fixtures"), 365 ("Overhead conductors and devices") and 369 ("Services").

46. The dispute that has arisen in connection with this litigation involves TECO's decision, beginning in 2005, to include expenses associated with Account 590 ("Maintenance Supervision and Engineering) - in addition to the Account 593 expenses - in its calculation of the maintenance element. The inclusion of these additional Account 590 expenses (the effect of which is to increase the overall carrying charge factor and accordingly, the formula rate³⁴) is simply not permitted under FCC rules, a fact TECO itself acknowledges.³⁵ Notwithstanding the clear (and undisputed) FCC ruling, and recognition of the FCC's underlying reasoning that "any increased accuracy that would be derived from including the minute percentage of pole related expenses that may be included in Account 590, is outweighed by the complexity of arriving at an appropriate and equitable percentage," TECO nonetheless, and without further explanation, asserts the reasonableness of its inclusion of these additional expenses in its FCC formula rate calculations.³⁶

47. The FCC rules on this matter are fully consistent with the economic principles of cost causation underlying pole rate regulation, which hold that the entity causally responsible (i.e., the entity but for whose existence or action a cost would not have been incurred) is to be attributed those costs. To include an account the overwhelming portion of which is *not* related to poles would be in contravention of these fundamental cost causation principles. As it is, and unlike the comparable FCC ARMIS reporting system for telephone utilities, the FERC Account 593 does not separately track pole and line-related maintenance expenses. As a result, the Account 593 expenses included in the calculation of the maintenance element already include a number of non-pole related expenses that from a cost-based or economic efficiency perspective would be removed if data readily existed to do so. To add further non-pole related expenses with the inclusion of Account 590 would only compound that problem.

³⁴ For example, using 2005 data, the change in this one input alone, i.e., calculating this element based on expenses in Account 590 in addition to those in Account 593, as TECO has done, has the effect of increasing the telecom pole rental rate calculated by TECO from \$20.80 to \$20.82, a increase of .1%.

³⁵ See TECO Response at 11 ("Tampa Electric concedes that inclusion of these supervisory expenses, though reasonable, has been disallowed by the [Federal Communications] Commission.").

48. As with every other acknowledged error in its application of the FCC rate formula, TECO agrees “[g]oing forward Tampa Electric will revise its methodology.” Once again, TECO’s pledge does not address the problem that the formula rates upon which TECO’s expert Mr. Barta bases his calculations of damages in this litigation are nonetheless based on a carrying charge factor containing the incorrectly calculated (and overstated) maintenance element, the result of which are impermissibly high pole rates, and correspondingly an overstatement of any potential damages that may be due TECO in connection with this litigation.

V. CALCULATIONS OF TECO’S MAXIMUM PERMISSIBLE POLE ATTACHMENT RENTAL RATES UNDER FCC CABLE AND TELECOM FORMULAS USING CORRECTED DATA INPUTS

49. Once all the key input data to the three major components of the formula are properly identified, the calculation of the maximum rate under the FCC formula methodology is a straightforward multiplication of these components: *net bare pole cost* times *carrying charge factor* times *space allocation factor*. For purposes of this assignment, I have calculated two sets of rates - one using the FCC cable formula and another using the FCC telecom formula - with the appropriate data inputs as described in the previous section of this report.

50. Two other methodological notes to point out. First, pursuant to statutory requirement,³⁷ the telecom rate was required to be phased-in over a period of five years, beginning on the effective date of the regulations, i.e. or five years after the enactment of the 1996 Telecommunications Act establishing the telecom rate, or February 8, 2001. My calculations therefore provide for the phase-in of the telecom rate applicable to the five-year period 2001 to 2005, in keeping with the FCC rules, which directed the equal phase-in of any increase between the new telecom rate and the existing cable rate.³⁸

51. Second, pursuant to FCC rules, a “utility shall provide a cable system telephone operator or telecommunications carrier no less than 60 days written notice prior to...[a]ny increase in pole attachment rates.”³⁹ The FERC Form 1 data required to calculate the FCC formula is not generally released before April 1st of the following year (i.e., data for year-end 2008 is released April 1, 2009). Adherence to the 60 days notice provision means that formula rates for any given rate year cannot go into effect until at

³⁶ *Id.*

³⁷ See 47 U.S.C. §224(e)(4); 47 C.F.R. §1.1409(e)(2) & (f).

³⁸ See Federal Communications Commission, *Implementation of Section 703(e) of the Telecommunications Act of 1996*, 13 F.C.C.R. 67777, 6835 (1998) at ¶¶129-130.

³⁹ See 47 C.F.R. §1.1403(c)(2).

least 60 days following the calculation of the new rate which cannot occur prior to the issuance of the prior year's FERC Form 1 data, or approximately June 1 of the following year. Accordingly, the rates I have calculated for cable and telecom attachments pursuant to the FCC formula methodology (and summarized in Tables 3 and 4 below) using data as of a given year-end, represent rates that the utility can charge third party attachers no earlier than June 1 of the following year. In other words, rates shown for year-end 2001 apply to rates that could have gone in effect no earlier than June 1, 2002, and so on. The supporting rate calculations are provided in Attachment 3 to this report.

Table 3
Maximum TECO Pole Rental Rates
Under FCC Cable Formula

Data Yr Ending 12/31	2001	2002	2003	2004	2005	2006	2007	2008
Net Inv Per Bare Pole	\$188.05	\$189.38	\$191.90	\$192.97	\$203.91	\$206.15	\$197.94	\$224.85
x Carrying Charges	34.21%	31.48%	29.45%	31.03%	32.07%	34.26%	36.67%	34.56%
x Space Factor	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%
Rental Rate	\$4.77	\$4.42	\$4.19	\$4.44	\$4.84	\$5.23	\$5.38	\$5.76

Table 4 Maximum TECO Pole Rental Rates Under FCC Telecom Formula								
Data Yr Ending 12/31	2001	2002	2003	2004	2005	2006	2007	2008
Net Inv. Per Bare Pole	\$188.05	\$189.38	\$191.90	\$192.97	\$203.91	\$206.15	\$197.94	\$224.85
x Carrying Charges	34.21%	31.48%	29.45%	31.03%	32.07%	34.26%	36.67%	34.56%
x Space Factor	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%
=Telecom Rt	\$7.21	\$6.68	\$6.33	\$6.71	\$7.32	\$7.91	\$8.13	\$8.70
Phase-in %	40%	60%	80%	100%				
X Rate Diff. Telec. -Cable	\$2.44	\$2.26	\$2.14	\$2.27				
=Increment	\$0.98	\$1.36	\$1.71	\$2.27				
+Cable Rate	\$4.77	\$4.42	\$4.19	\$4.44				
=Phased-in Telecom Rate	\$5.74	\$5.77	\$5.90	\$6.71				

52. In my opinion, rates set higher than the maximum permissible rates identified in Table 3 and 4 above for the years 2002-2009 (such as calculated by TECO) are inconsistent with the FCC formula methodology and the just and reasonable standard set forth in Section 224 of the Communications Act underlying that methodology. In addition, rates higher than these would fail to serve the ultimate purposes of effective pole rate regulation, which historically has been, and continues to be, about protecting cable operators and other third-party attachers against monopoly abuses of pole-owning utilities. Such abuses include the charging of rental rates for pole attachments that far exceed levels in line with those a competitively-functioning market for poles would produce, especially when make ready charges imposed by utilities on third party attachers for any up front out-of-pocket costs they might incur in connection with hosting a third-party pole attachment are taken into account.

VI. CALCULATION OF THEORETICAL DAMAGES

Amounts Purportedly Owed by Bright House are Overstated Relative to Properly Calculated Maximum Permissible FCC Formula Rates.

53. As an investor-owned utility subject to FCC pole rate regulations, TECO is not permitted to charge third-party rental rates for cable and telecom attachments that are any higher than the just and reasonable maximum lawful rates permissible under the FCC cable and telecom rate formulas, respectively. Accordingly, any theoretical damages associated with the underpayment of pole attachment rentals by an attacher cannot themselves be calculated based on rates any higher than the maximum permissible amounts that a correct application of the FCC formula methodology would produce. As described earlier in this report, TECO's FCC rate formula calculations, upon which its expert's damages calculations are based,⁴⁰ contain a number of errors, that individually and collectively, result in rates that are *overstated* relative to the properly calculated maximum permissible rates for both cable and telecom attachments (see Table 5 below). As a result, Mr. Barta's damages calculations are correspondingly overstated.

54. For example, in calculating damages associated with what Mr. Barta alleges to be "back billings" for Bright House's provision of telecommunications services, Mr. Barta calculates the difference between telecom and cable rates and then multiplies that difference by the number of poles.⁴¹ Thus, the larger the difference between the two rates, the larger the amount of calculated damages based on those differences. As shown in Table 5, the true differences between the two rates, correctly calculated, are considerably smaller than the differences Mr. Barta bases his damages calculations on. For example, for the year 2005, the damages Mr. Barta calculates for back billings are based on a difference of \$12.24 between the telecom and cable formula rates calculated by TECO. However, based on the correctly calculated maximum permissible rates as shown in Table 5, the difference between the telecom and cable rates for 2005 is only \$2.27 [\$6.71-\$4.44]. To the extent any damages are awarded for back billings, they should be based upon the true differences between the permissible telecom and cable rates, and not the artificially high ones that Mr. Barta calculates based on the erroneous TECO rate calculations.

⁴⁰ See Expert Report of William Barta, at pp. 3, 5 (Tables 1 and 3 identifying cable and telecom rates used in his damages calculations, and which correspond to TECO formula rate calculations provided in FCC Complaint Proceeding, Exhibit 1.

⁴¹ See Id. at Table 1.

Rate Year	Maximum Permissible Cable Rate	TECO Calculated Cable Rate	% Diff between Max Perm Cable & TECO Rate	Maximum Permissible Telecom Rate	TECO Calculated Telecom Rate	% Diff between Max Perm Telecom & TECO Rate
2002	\$4.77	\$5.74	20.3%	\$5.75	\$12.10	110.4%
2003	\$4.42	\$5.60	26.7%	\$5.78	\$14.33	147.9%
2004	\$4.19	\$5.31	26.7%	\$5.90	\$14.58	147.1%
2005	\$4.44	\$5.63	26.8%	\$6.71	\$17.87	166.3%
2006	\$4.84	\$6.20	28.1%	\$7.32	\$19.40	165.0%
2007	\$5.23	\$6.65	27.1%	\$7.91	\$20.82	163.2%
2008	\$5.38	\$6.84	27.1%	\$8.13	\$21.40	163.2%
2009	\$5.76	\$7.30	26.7%	\$8.70	\$22.85	162.6%

55. Moreover, because as shown in Table 5, the rates calculated by TECO for the period subject to this litigation exceeded maximum permissible FCC formula rates for telecom and cable attachments, the amounts paid by Bright House for pole attachments during this period and which were based on the TECO-calculated rates necessarily exceeded maximum permissible rates. Pursuant to pole rate regulations, the FCC formula rates provide a ceiling or upper bound for a just and reasonable pole attachment rate. In other words, while a just and reasonable rate for pole attachments may fall below the formula rate, it is not allowed to be set at a level above that rate. In calculating the theoretical damages that would be due TECO in this matter, it is necessary to also take into account the amount of any such *overpayments* that Bright House made to TECO for those pole attachments subject to the cable rate. Specifically, the amount of any overpayments by Bright House on attachments subject to the cable rate should be applied as an offset in the calculation of potential damages associated with any underpayments by Bright House on attachments subject to the telecom rate as illustrated below:

$$\text{Net Theoretical Damages to TECO} = [(\text{Maximum Permissible Telecom Rate} - \text{Amount BHN Paid per Pole}) \times \text{Number of BHN Poles w/ Telecom Attachments}] - [(\text{Amount BHN Paid per Pole} - \text{Maximum Permissible Cable Rate}) \times \text{Number of BHN Poles w/ Cable Attachments}].$$

56. This Report does not address the issue of which Bright House pole attachments are subject to the telecom rate pursuant to Section 224(e) of the Communications Act vis-à-vis those that continue to be subject to the cable rate pursuant to Section 224(d). However, for the reasons delineated above, a proper calculation of the theoretical damages due TECO in this matter will appropriately recognize both categories of pole attachments, i.e., cable and telecom, and account for the occurrence of overpayments by Bright House vis-à-vis maximum permissible rates for the former *in addition to* any underpayments by Bright House vis-à-vis maximum permissible rates for the latter. By focusing only on the alleged underpayments pertaining to telecom attachments, Mr. Barta overstates any potential damages due TECO, and further compounds the overstatement resulting from his reliance on TECO's improperly calculated rates versus FCC maximum permissible rates.

Interest Charges Applied by TECO's Expert Are Overstated Relative to Applicable IRS Rates.

57. In his calculations, Mr. Barta applies interest charges to arrive at the total amount of damages due TECO. According to Mr. Barta, he applies a weighted interest rate which he computes based on "the late payment terms specified in certain pole agreements that are in effect between Tampa Electric Company and Bright House" (which he identifies as an annual rate of 18%) and "the interest charges applicable upon the prevailing Florida statutory interest rate in the event of delinquent payments (which he identifies as varying between 6% to 11%)."⁴² His weighted interest rate, calculated by applying the 18% rate to 44% of the poles and the varying Florida rate to 56% of the poles, ranges from 11.28% to 14.08%.⁴³

58. While the FCC does provide for the application of interest charges to disputed pole rental amounts such as those at issue in this litigation, the FCC has specifically found those interest charges should be limited to the rates established and published by IRS charges for underpayments and overpayments.⁴⁴ The interest rates that Mr. Barta incorrectly applies far exceed the applicable interest charges as shown in Table 6 on the following page. The applicable interest rates shown in Table 6 would apply to both any

⁴² Expert Report of William Barta at 5-6, Exhibit WJB-3.

⁴³ *Id.*, Exhibit WJB-3.

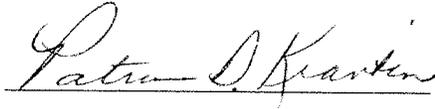
⁴⁴ See *In the Matter of Mile Hi Cable Partners, L.P.; Mountain States Video, Inc., d/b/a TCI of Colorado, Inc.; United Cable Television of Colorado, Inc., d/b/a TCI of Colorado, Inc.; TCI Cablevision of Colorado, Inc.; Heritage Cablevision of Tennessee, Inc.; and TCI Cablevision of Florida, Inc., Complainant v. Public Service Company of Colorado*, Respondent. File No. PA 98-003, Order released June 30, 2000, at ¶14 ("We believe that a reasonable penalty for unauthorized attachments will not exceed an amount approximately equal to the annual pole attachment fee for the number of years since the most recent inventory or five years, whichever is less, plus interest at a rate set for that period by the Internal Revenue Service ("IRS") for individual underpayments pursuant to Section 6621 of the Internal Revenue Code.")

potential underpayments of pole attachment rates by Bright House for which TECO should be compensated with interest, as well as to any offsetting overpayments of pole attachment rates by Bright House for which Bright House should be compensated with interest.

Rate Year	TECO Rate	IRS Rate
2001	14.08%	7.75%
2002	12.96%	6.00%
2003	11.28%	4.75%
2004	11.84%	4.50%
2005	11.84%	6.00%
2006	12.96%	7.50%
2007	14.08%	8.00%
2008	14.08%	6.00%
2009	12.40%	4.25%
Sources: Barta Report, Exh.WJB-3; http://www.irs.gov/pub/irs-drop/rr-09-07.pdf .		

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: December 30 2009

A handwritten signature in cursive script, reading "Patricia D. Kravtin", written over a horizontal line.

Patricia D. Kravtin



Kravtin Attachment 1

Patricia D. Kravtin

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Swampscott, MA 01907
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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 public 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.
- Grant Reviewer for Broadband Technology Opportunities Program (BTOP) administered by National Telecommunications and Information Administration (NTIA), Fall 2009.

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. Awarded Phi Beta Kappa, Omicron Delta Epsilon (for high scholastic achievement in 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-Term 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 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.

“Multi-product Transportation Cost Functions,” MIT Working Paper, September 1982.

Record of Prior Testimony

2009

Before the **Superior Court of the State Of Washington for the County of Pacific**, *Pacific Utility District No. 2 Of Pacific County, Plaintiff, V. Comcast of Washington Iv, Inc., Centurytel of Washington, Inc., and Falcon Community Ventures I, L.P. D/B/A Charter Communications, Defendants, Case No. 07-2-00484-1*, Expert Report submitted September 18, 2009, Reply Report submitted October 16, 2009.

Before the **Public Utilities Commission of Ohio**, *In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Electric Distribution Rates, Case No. 08-709-EL-AIR, In the Matter of the Application of Duke Energy Ohio, Inc., for a Tariff Approval, Case No. 08-710-EL-ATA, In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods, Case No. 08-11-EL-AAM, In the Matter of the Application of Cincinnati Gas & Electric Company for Approval of its Rider BDP, Backup Delivery Point, Case No. 06-718-EL-ATA*, filed February 26, 2009.

2008

Before the **Arkansas Public Service Commission**, *In the Matter of a Rulemaking Proceeding to Establish Pole Attachment Rules In Accordance With Act 740 of 2007*, Docket No. 08-073-R, filed May 13, 2008, reply filed June 3, 2008, Cross-examination June 10, 2008.

Before the **Federal Communications Commission**, *In the Matter of Implementation of Section 224 of the Act; Amendment of the Commission's Rules and Policies Governing Pole Attachments*, WC Docket No. 07-245, RM 11293, RM 11303, filed March 7, 2008, reply filed April 22, 2008.

2006

Before the **State of New Jersey Board of Public Utilities**, Office of Administrative Law, *in the Matter of 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, filed September 29, 2006; rebuttal filed November 17, 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, Dep. 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, Dep. 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

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*, Case 02-M-1636, 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; Dep. 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; Dep. December 7, 2001, Rebuttal Expert Report filed December 20, 2001, Dep. 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 § 39.201 and 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, 1.93-04-002AT&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 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'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*, 1.87-11-033, 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.

1987

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.

1986-1982

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

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).

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.

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.

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.

List of Data and Information Considered in Forming Opinion

Expert Report of William Barta, dated November 23, 2009, including Exhibits and Attachments.

Bright House Networks (BHN) Deposition Exhibit 4, introduced at Deposition of William Ashburn, May 12, 2009.

Bright House Motion for Leave to File Supplement to Pole Attachment Complaint, and Supplement to Pole Attachment Complaint, including Exhibits 1-16, dated July 28, 2009, *Bright House Networks, LLC, Complainant v. Tampa Electric Company, Respondent*, File No. EB-06-MD-003 (Exhibits in the FCC complaint proceeding also introduced as BHN Deposition Exhibits)

Tampa Electric Company's Response to the Supplement to Pole Attachment Complaint of Bright House Networks, LLC, dated September 4, 2009, *Bright House Networks, LLC, Complainant v. Tampa Electric Company, Respondent*, File No. EB-06-MD-003.

Bright House Network's Reply to Tampa Electric Company's Response to Supplement to Pole Attachment Complaint, dated September 28, 2009, *Bright House Networks, LLC, Complainant v. Tampa Electric Company, Respondent*, File No. EB-06-MD-003.

Federal Energy Regulatory Commission, FERC Form No. 1: Annual Report of Major Electric Utilities, Licensees and Others, for Tampa Electric Company, for the years 2001-2008.

Federal Communications Commission Orders and Rules as cited in footnotes.

Section 224 of the Communications Act.

Interest Rate Publications of the Internal Revenue Service as cited in tables.

Economic literature as cited in footnotes.

Description of the Carrying Charge Factor (CCF) Component of the FCC Rate Formula

Administrative Element: Expenses relating to this element of the CCF are tracked in the FERC Form 1 at the aggregate level of electric plant in service. Accordingly, for this element, under the FCC formula, the CCF is calculated by taking the relevant expense account figures per FERC Form 1 (Accounts 920-931, 935)⁴⁵ and dividing them by net plant in service for total electric plant (i.e., gross electric plant less accumulated depreciation less accumulated deferred taxes for total electric plant).

Taxes Element: Expenses relating to this element of the CCF are tracked in the FERC Form 1 at the aggregate level of total plant in service. Accordingly, for this element, under the FCC formula, the CCF is calculated by taking the relevant expense account figures per FERC Form 1 (Accounts 408-411)⁴⁶ and dividing them by net utility plant in service (i.e., total gross utility plant less accumulated depreciation less accumulated deferred taxes for total plant).

Maintenance Element: Expenses relating to this element of the CCF are tracked at a more granular level in Account 593 (“Maintenance of Overhead Lines”), associated with the following three distribution plant in service accounts: Account 364 (“Poles, Towers, and Fixtures”), 365 (“Overhead conductors and devices”) and 369 (“Services”).⁴⁷ Accordingly, the CCF for this element is calculated by dividing the amount of maintenance expense recorded in Account 593 by the net plant in service associated with each of these three individual accounts. In the FERC Form 1, accumulated depreciation is not tracked at the level of detailed plant accounts such as

⁴⁵ In reality, there are many costs contained within the identified accounts that are not related to pole attachment, and that the utility should not be allowed to recover from attachers based on fundamental economic principles of cost causation, but are nevertheless included in the FCC formula to minimize the costs of regulation, i.e., so that the FCC does not have to monitor whether the proper costs are “backed out” of a particular FERC or ARMIS account (in the case of a telephone company). These expenses booked to Accounts 920 (administrative and general salaries, including officer salaries), 921 (office supplies and expenses) including telephone and court-related expenses, 923 (outside services employed) including attorney fees and audit expenses, 926 (employee pensions and benefits) including health insurance related expenses, and 930 (miscellaneous general expenses) including general advertising, bank service fees, and association dues.

⁴⁶ 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.

⁴⁷ Unlike the comparable FCC ARMIS reporting system for telephone utilities, the FERC Account 593 does not separately track pole and line-related maintenance expenses. As a result, Account 593 includes a number of non-pole related expenses that from a cost-based or economic efficiency perspective would be removed if data readily existed to do so.

Accounts 364, 365, and 369. Accordingly, under the FCC methodology, accumulated depreciation is prorated to these accounts by multiplying the aggregate accumulated depreciation figure for electric plant by the ratio of gross plant in service for each of the respective individual accounts to gross electric plant. Because TECO tracks and has provided in the related FCC complaint proceeding information on accumulated depreciation at the individual plant account level for each of these accounts, it is reasonable to use the amounts TECO has provided on booked accumulated depreciation reserves to calculate net investment for Accounts 364, 365, and 369 rather than figures derived using the process of proration when calculating TECO's pole rates.

Depreciation Element: The CCF for depreciation is based on the prescribed depreciation rate for pole plant. 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 pole plant by the ratio of gross pole investment (Account 364) to the calculated net pole investment, to determine the depreciation expense.

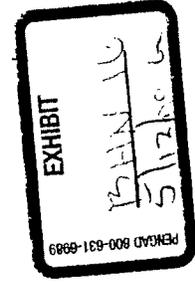
Return Element: This component allows the utility to recover a normal or fair (economic) return on overall capital (including both equity and debt components) from third-party attachers over and above the recovery of actual pole related costs. The FCC methodology uses the most current state authorized overall rate of return for an investor-owned utility. Where none is available, an FCC default rate of return may be used.

**TECO Continuing Property Records Pole Plant Plant 364 Account for
2000-2008**

YEAR	PAN_FERC	PAN_PNT	ASST_COST	ASST_QTY	RET_DATE	ASST_DESC_GENERAL
1996	364	0	459,323.88	3,364		POLE WOOD 25 FT
1996	364	0	25,891,377.13	81,840		POLE WOOD 30 FT
1996	364	0	20,927,978.15	66,127		POLE WOOD 35 FT
1996	364	0	37,922,686.18	108,697		POLE WOOD 40 FT
1996	364	0	21,521,284.77	47,674		POLE WOOD 45 FT
1996	364	0	2,216,133.49	2,318		POLE WOOD 50 FT
1996	364	0	448,847.12	424		POLE WOOD 55 FT
1996	364	0	235,978.97	293		POLE WOOD 60 FT
1996	364	0	92,102.16	38		POLE WOOD 65 FT
1996	364	0	35,992.64	6		POLE WOOD 70 FT
1996	364	0	9,203.12	2		POLE WOOD 75 FT
1996	364	0	9,260.21	8		POLE WOOD 80 FT
1996	364	0	1,971.82	10		POLE CONCRETE 25 FT
1996	364	0	34,846.18	156		POLE CONCRETE 30 FT
1996	364	0	564,772.47	963		POLE CONCRETE 40 FT
1996	364	0	2,615,359.03	3,541		POLE CONCRETE 45 FT
1996	364	0	22,836.28	12		POLE CONCRETE 50FT
1996	364	0	438.58	17		POLE STL 40FT
1996	364	0	18,433.88	3		POLE STEEL 60 FT
1996	364	0	7,504.09	5		CONC/WOOD POLES
1996	364	0	2,118.91	4		POST ALUM
1996	364	0	532,420.99	3,833		STEEL REINFORCE-WOOD POLES
1996	364	0	47,331.99	35		POLE FIBERGLASS 30 FT.
1996	364	0	4,373.77	1		POLE CONC 55 & 60FT
1996	364	0	205,189.57	842		MONOLITHING-WOOD POLES
1996	364	0	41,433.73	28		POLE CONCRETE 35 FT
1996	364	0	113,869,199.11	320,241		
			87,252,602.98	23,896		

AVG Cost
from 1996 - 2008

3,651.35



YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	RET_DATA	ASST_DESC_GENERAL
1997	364	0	459,323.88	3,364	POLE WOOD 25 FT
1997	364	0	27,274,101.09	82,907	POLE WOOD 30 FT
1997	364	0	21,985,349.56	66,832	POLE WOOD 35 FT
1997	364	0	39,985,384.70	109,757	POLE WOOD 40 FT
1997	364	0	22,633,149.04	48,209	POLE WOOD 45 FT
1997	364	0	2,517,909.21	2,469	POLE WOOD 50 FT
1997	364	0	477,765.77	432	POLE WOOD 55 FT
1997	364	0	249,097.70	298	POLE WOOD 60 FT
1997	364	0	92,102.16	38	POLE WOOD 65 FT
1997	364	0	35,992.64	6	POLE WOOD 70 FT
1997	364	0	9,203.12	2	POLE WOOD 75 FT
1997	364	0	9,260.21	8	POLE WOOD 80 FT
1997	364	0	1,971.82	10	POLE CONCRETE 25 FT
1997	364	0	34,846.18	156	POLE CONCRETE 30 FT
1997	364	0	579,862.83	966	POLE CONCRETE 40 FT
1997	364	0	2,832,997.99	3,696	POLE CONCRETE 45 FT
1997	364	0	37,883.38	15	POLE CONCRETE 50 FT
1997	364	0	438.58	17	POLE STL 40 FT
1997	364	0	18,433.88	3	POLE STEEL 60 FT
1997	364	0	7,504.09	5	CONC/WOOD POLES
1997	364	0	532,420.99	3,833	STEEL REINFORCE-WOOD POLES
1997	364	0	47,331.99	35	POLE FIBERGLASS 30 FT
1997	364	0	0.00	0	POLE CONC 55 & 60 FT
1997	364	0	205,189.57	842	MONOLITHING-WOOD POLES
1997	364	0	39,959.52	27	POLE CONCRETE 35 FT
1997	364	0	8,337.05	5	AMORTIZABLE COMPUTER EQUIPMENT
1997	364	0	17,423.25	2	AMORTIZE TELEPHONE/VOICE
1997	364	0	55,420.92	4	AMORTIZE COMMON EQUIP
1997	364	0	120,148,661.12	323,938	
			6,279,462.01	3,697	

Net Additions

YEAR	PAN_FERIPAN_PNT	ASST_COST	ASST_QTYRET_DATE	ASST_DESC_GENERAL
1998	364	0	459,323.88	POLE WOOD 25 FT
1998	364	0	28,932,262.30	POLE WOOD 30 FT
1998	364	0	23,332,861.89	POLE WOOD 35 FT
1998	364	0	42,240,958.42	POLE WOOD 40 FT
1998	364	0	24,173,911.03	POLE WOOD 45 FT
1998	364	0	2,860,505.61	POLE WOOD 50 FT
1998	364	0	568,845.18	POLE WOOD 55 FT
1998	364	0	252,179.33	POLE WOOD 60 FT
1998	364	0	92,102.16	POLE WOOD 65 FT
1998	364	0	35,992.64	POLE WOOD 70 FT
1998	364	0	15,751.77	POLE WOOD 75 FT
1998	364	0	9,260.21	POLE WOOD 80 FT
1998	364	0	1,971.82	POLE CONCRETE 25 FT
1998	364	0	34,846.18	POLE CONCRETE 30 FT
1998	364	0	616,844.50	POLE CONCRETE 40 FT
1998	364	0	3,149,088.80	POLE CONCRETE 45 FT
1998	364	0	50,116.91	POLE CONCRETE 50 FT
1998	364	0	438.58	POLE STL 40FT
1998	364	0	18,433.88	POLE STEEL 60 FT
1998	364	0	7,504.09	CONC/WOOD POLES
1998	364	0	532,420.99	STEEL REINFORCE-WOOD POLES
1998	364	0	50,004.78	POLE FIBERGLASS 30 FT
1998	364	0	0.00	POLE CONC 55 & 60FT
1998	364	0	205,189.57	MONOLITHING-WOOD POLES
1998	364	0	52,928.94	POLE CONCRETE 35 FT
1998	364	0	127,693,743.46	
			7,545,082.34	
			4,028	

Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTYRET_DATE	ASST_DESC_GENERAL	
1999	364	0	459,086.54	3,363	POLE WOOD 25 FT
1999	364	0	30,278,890.99	84,641	POLE WOOD 30 FT
1999	364	0	24,495,306.15	68,180	POLE WOOD 35 FT
1999	364	0	43,760,583.88	111,254	POLE WOOD 40 FT
1999	364	0	25,019,098.35	49,182	POLE WOOD 45 FT
1999	364	0	2,938,701.94	2,657	POLE WOOD 50 FT
1999	364	0	592,210.85	483	POLE WOOD 55 FT
1999	364	0	255,607.44	296	POLE WOOD 60 FT
1999	364	0	92,102.16	38	POLE WOOD 65 FT
1999	364	0	35,992.64	6	POLE WOOD 70 FT
1999	364	0	22,381.72	4	POLE WOOD 75 FT
1999	364	0	9,260.21	8	POLE WOOD 80 FT
1999	364	0	1,971.82	10	POLE CONCRETE 25 FT
1999	364	0	34,846.18	156	POLE CONCRETE 30 FT
1999	364	0	649,484.44	1,005	POLE CONCRETE 40 FT
1999	364	0	3,324,458.90	3,973	POLE CONCRETE 45 FT
1999	364	0	55,032.28	22	POLE CONCRETE 50 FT
1999	364	0	438.58	17	POLE STL 40 FT
1999	364	0	18,433.88	3	POLE STEEL 60 FT
1999	364	0	7,504.09	5	CONC/WOOD POLES
1999	364	0	532,420.99	3,833	STEEL REINFORCE-WOOD POLES
1999	364	0	50,004.78	36	POLE FIBERGLASS 30 FT
1999	364	0	0.00	0	POLE CONC 55 & 60 FT
1999	364	0	205,189.57	842	MONOLITHING-WOOD POLES
1999	364	0	51,603.32	31	POLE CONCRETE 35 FT
1999	364	0	1,535.73	1	POLE WOOD 30 FT
1999	364	0	15,858.90	3	POLE CONC 55 FT
1999	364	0	7,976.19	1	POLE CONC 75 FT
			132,915,982.52	330,050	
			5,222,239.06	2,084	
					Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	RET_DATA	ASST_DESC_GENERAL
2000	364	459,086.54	3,363		POLE WOOD 25 FT
2000	364	31,680,957.63	85,427		POLE WOOD 30 FT
2000	364	25,559,753.46	68,660		POLE WOOD 35 FT
2000	364	45,413,942.82	111,842		POLE WOOD 40 FT
2000	364	26,153,192.26	49,593		POLE WOOD 45 FT
2000	364	3,066,704.07	2,700		POLE WOOD 50 FT
2000	364	627,970.81	492		POLE WOOD 55 FT
2000	364	255,607.44	296		POLE WOOD 60 FT
2000	364	92,102.16	38		POLE WOOD 65 FT
2000	364	35,755.30	5		POLE WOOD 70 FT
2000	364	22,381.72	4		POLE WOOD 75 FT
2000	364	9,260.21	8		POLE WOOD 80 FT
2000	364	1,971.82	10		POLE CONCRETE 25 FT
2000	364	34,846.18	156		POLE CONCRETE 30 FT
2000	364	650,715.04	987		POLE CONCRETE 40 FT
2000	364	3,396,494.84	3,991		POLE CONCRETE 45 FT
2000	364	55,032.28	22		POLE CONCRETE 50 FT
2000	364	438.58	17		POLE STL 40 FT
2000	364	18,433.88	3		POLE STEEL 60 FT
2000	364	7,504.09	5		CONCWOOD POLES
2000	364	532,420.99	3,833		STEEL REINFORCE-WOOD POLES
2000	364	50,004.78	36		POLE FIBERGLASS 30 FT
2000	364	0.00	0		POLE CONC 55 & 60 FT
2000	364	205,189.57	842		MONOLITHING-WOOD POLES
2000	364	53,294.50	32		POLE CONCRETE 35 FT
2000	364	1,535.73	1		POLE WOOD 30 FT
2000	364	15,858.90	3		POLE CONC 55 FT
2000	364	7,976.19	1		POLE CONC 75 FT
2000	364	746.02	2		POLE WOOD 35 FT
2000	364	447.33	1		POLE WOOD 45 FT
		138,409,625.14	332,370		

Net Additions

5,493,642.62

2,320

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	REI_DATA	ASST_DESC_GENERAL
2001	364	0	459,086.54	3,363	POLE WOOD 25 FT
2001	364	0	33,076,784.99	86,001	POLE WOOD 30 FT
2001	364	0	26,559,239.22	68,924	POLE WOOD 35 FT
2001	364	0	47,180,858.46	112,382	POLE WOOD 40 FT
2001	364	0	27,488,953.04	50,246	POLE WOOD 45 FT
2001	364	0	3,263,175.91	2,796	POLE WOOD 50 FT
2001	364	0	765,737.00	580	POLE WOOD 55 FT
2001	364	0	258,039.09	296	POLE WOOD 60 FT
2001	364	0	92,102.16	38	POLE WOOD 65 FT
2001	364	0	35,755.30	5	POLE WOOD 70 FT
2001	364	0	22,144.38	3	POLE WOOD 75 FT
2001	364	0	9,260.21	8	POLE WOOD 80 FT
2001	364	0	1,971.82	10	POLE CONCRETE 25 FT
2001	364	0	34,846.18	156	POLE CONCRETE 30 FT
2001	364	0	695,803.34	1,014	POLE CONCRETE 40 FT
2001	364	0	3,608,231.14	4,113	POLE CONCRETE 45 FT
2001	364	0	55,032.28	22	POLE CONCRETE 50 FT
2001	364	0	438.58	17	POLE STL 40FT
2001	364	0	18,433.88	3	POLE STEEL 60 FT
2001	364	0	7,504.09	5	CONCWOOD POLES
2001	364	0	532,420.99	3,833	STEEL REINFORCE-WOOD POLES
2001	364	0	48,652.44	35	POLE FIBERGLASS 30 FT.
2001	364	0	0.00	0	POLE CONC 55 & 60FT
2001	364	0	205,189.57	842	MONOLITHING-WOOD POLES
2001	364	0	57,840.37	34	POLE CONCRETE 35 FT
2001	364	0	1,535.73	1	POLE WOOD 30 FT
2001	364	0	54,893.97	9	POLE CONC 55FT
2001	364	0	7,976.19	1	POLE CONC 75FT
2001	364	0	746.02	2	POLE WOOD 35 FT
2001	364	0	447.33	1	POLE WOOD 45 FT
2001	364	0	354.70	1	POLE WOOD 30 FT
2001	364	0	408.29	1	POLE WOOD 35 FT
2001	364	0	899.79	1	POLE WOOD 30 FT
			144,544,763.00	334,743	

Net Additions 6,135,137.86 2,373

YEAR	PAN_FER(PAN_PNT)	ASST_COST	ASST_QT(RET)	DATI(ASST_DESC_GENERAL)
2002	364	0	3,363	POLE WOOD 25 FT
2002	364	459,066.54	86,534	POLE WOOD 30 FT
2002	364	34,394,469.33	69,592	POLE WOOD 35 FT
2002	364	27,746,931.38	113,084	POLE WOOD 40 FT
2002	364	48,847,408.85	50,784	POLE WOOD 45 FT
2002	364	28,713,674.29	2,835	POLE WOOD 50 FT
2002	364	3,402,826.55	588	POLE WOOD 55 FT
2002	364	794,104.76	295	POLE WOOD 60 FT
2002	364	257,801.75	37	POLE WOOD 65 FT
2002	364	91,864.82	5	POLE WOOD 70 FT
2002	364	43,224.54	3	POLE WOOD 75 FT
2002	364	22,144.38	8	POLE WOOD 80 FT
2002	364	9,260.21	10	POLE CONCRETE 25 FT
2002	364	1,971.82	156	POLE CONCRETE 30 FT
2002	364	34,846.18	1,059	POLE CONCRETE 40 FT
2002	364	786,769.20	4,227	POLE CONCRETE 45 FT
2002	364	3,854,090.56	33	POLE CONCRETE 50 FT
2002	364	121,818.06	17	POLE STL 40 FT
2002	364	438.58	3	POLE STEEL 60 FT
2002	364	18,433.88	5	CONC WOOD POLES
2002	364	7,504.09	3,833	STEEL REINFORCE-WOOD POLES
2002	364	532,420.99	34	POLE FIBERGLASS 30 FT
2002	364	47,300.10	0	POLE CONC 55 & 60 FT
2002	364	0.00	842	MONOLITHING-WOOD POLES
2002	364	205,189.57	33	POLE CONCRETE 35 FT
2002	364	57,177.56	1	POLE WOOD 30 FT
2002	364	1,535.73	9	POLE CONC 55 FT
2002	364	54,893.97	1	POLE CONC 75 FT
2002	364	7,976.19	2	POLE WOOD 35 FT
2002	364	746.02	1	POLE WOOD 45 FT
2002	364	447.33	1	POLE WOOD 30 FT
2002	364	354.70	1	POLE WOOD 35 FT
2002	364	408.29	1	POLE WOOD 30 FT
2002	364	899.79	1	POLE WOOD 30 FT
2002	364	249.34	0	POLE CONC 70 FT
2002	364	0	337,397	
		150,518,269.35		
		5,973,506.35	2,654	

Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	REI_DATA	ASST_DESC_GENERAL
2003	364	0	3,363		POLE WOOD 25 FT
2003	364	459,086.54	86,770		POLE WOOD 30 FT
2003	364	35,472,772.50	70,042		POLE WOOD 35 FT
2003	364	28,718,348.42	113,461		POLE WOOD 40 FT
2003	364	50,170,425.01	51,247		POLE WOOD 45 FT
2003	364	29,992,073.67	2,849		POLE WOOD 50 FT
2003	364	3,499,194.85	585		POLE WOOD 55 FT
2003	364	818,583.77	294		POLE WOOD 60 FT
2003	364	257,561.32	38		POLE WOOD 65 FT
2003	364	95,072.22	5		POLE WOOD 70 FT
2003	364	43,224.54	3		POLE WOOD 75 FT
2003	364	22,144.38	8		POLE WOOD 80 FT
2003	364	9,260.21	10		POLE CONCRETE 25 FT
2003	364	1,971.82	156		POLE CONCRETE 30 FT
2003	364	34,846.18	1,115		POLE CONCRETE 40 FT
2003	364	862,906.99	4,303		POLE CONCRETE 45 FT
2003	364	4,003,872.41	35		POLE CONCRETE 50 FT
2003	364	130,961.54	17		POLE STL 40FT
2003	364	438.58	3		POLE STEEL 60 FT
2003	364	18,433.88	5		CONC/WOOD POLES
2003	364	7,504.09	3,833		STEEL REINFORCE-WOOD POLES
2003	364	532,420.99	34		POLE FIBERGLASS 30 FT.
2003	364	47,300.10	0		POLE CONC 55 & 60FT
2003	364	0.00	842		MONOLITHING-WOOD POLES
2003	364	205,189.57	34		POLE CONCRETE 35 FT
2003	364	58,310.43	9		POLE CONC 55FT
2003	364	54,893.97	3		POLE CONC 75FT
2003	364	23,674.36	339,064		
		155,540,472.34			
		5,022,202.99	1,667		

Net Additions

YEAR	PAN_FER/PAN_PNT	ASST_COST	ASST_QTY	RET_DATE	DESC_GENERAL
2004	364	459,086.54	3,363		POLE WOOD 25 FT
2004	364	0	86,835		POLE WOOD 30 FT
2004	364	36,817,401.15	70,246		POLE WOOD 35 FT
2004	364	29,588,537.90	113,059		POLE WOOD 40 FT
2004	364	51,003,226.42	51,335		POLE WOOD 45 FT
2004	364	31,140,511.07	2,902		POLE WOOD 50 FT
2004	364	3,636,877.36	592		POLE WOOD 55 FT
2004	364	854,367.87	294		POLE WOOD 60 FT
2004	364	257,561.32	30		POLE WOOD 65 FT
2004	364	75,209.58	1		POLE WOOD 70 FT
2004	364	8,644.90	0		POLE WOOD 75 FT
2004	364	0.00	10		POLE WOOD 80 FT
2004	364	53,322.62	156		POLE CONCRETE 25 FT
2004	364	1,971.82	1,117		POLE CONCRETE 30 FT
2004	364	34,846.18	4,330		POLE CONCRETE 40 FT
2004	364	878,504.82	53		POLE CONCRETE 45 FT
2004	364	4,194,935.88	17		POLE CONCRETE 50 FT
2004	364	218,878.61	3		POLE STL 40 FT
2004	364	438.58	3		POLE STEEL 60 FT
2004	364	18,433.88	5		CONC/WOOD POLES
2004	364	7,504.09	3,833		STEEL REINFORCE-WOOD POLES
2004	364	532,420.99	35		POLE FIBERGLASS 30 FT
2004	364	48,310.88	0		POLE CONC 55 & 60 FT
2004	364	0.00	842		MONOLITHING-WOOD POLES
2004	364	205,189.57	34		POLE CONCRETE 35 FT
2004	364	58,310.43	10		POLE CONC 55 FT
2004	364	79,351.09	3		POLE CONC 75 FT
2004	364	23,674.36	1		MAINTENANCE SHOP
2004	364	79,250.12	2		POLE WOOD 30 FT
2004	364	356.17	339,118		
		160,277,124.20			
		4,736,651.86	54		

Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	RET_DATE	ASST_DESC_GENERAL
2005	364	0	459,086.54	3,363	POLE WOOD 25 FT
2005	364	0	38,201,554.33	86,909	POLE WOOD 30 FT
2005	364	0	30,888,303.98	70,558	POLE WOOD 35 FT
2005	364	0	54,152,526.71	114,136	POLE WOOD 40 FT
2005	364	0	37,084,970.32	52,604	POLE WOOD 45 FT
2005	364	0	3,864,341.74	3,003	POLE WOOD 50 FT
2005	364	0	900,515.67	608	POLE WOOD 55 FT
2005	364	0	257,561.32	294	POLE WOOD 60 FT
2005	364	0	52,864.11	21	POLE WOOD 65 FT
2005	364	0	8,644.90	1	POLE WOOD 70 FT
2005	364	0	53,322.62	10	POLE WOOD 80 FT
2005	364	0	1,971.82	10	POLE CONCRETE 25 FT
2005	364	0	34,846.18	156	POLE CONCRETE 30 FT
2005	364	0	1,026,446.83	1,160	POLE CONCRETE 40 FT
2005	364	0	4,753,228.40	4,518	POLE CONCRETE 45 FT
2005	364	0	256,722.35	60	POLE CONCRETE 50 FT
2005	364	0	438.58	17	POLE STL 40 FT
2005	364	0	18,433.88	3	POLE STEEL 60 FT
2005	364	0	7,504.09	5	CONC/WOOD POLES
2005	364	0	508,247.46	3,833	STEEL REINFORCE-WOOD POLES
2005	364	0	51,390.01	37	POLE FIBERGLASS 30 FT.
2005	364	0	0.00	0	POLE CONC 55 & 60 FT
2005	364	0	205,189.57	842	MONOLITHING-WOOD POLES
2005	364	0	60,092.63	34	POLE CONCRETE 35 FT
2005	364	0	175,755.04	14	POLE CONC 55 FT
2005	364	0	23,674.36	3	POLE CONC 75 FT
2005	364	0	79,250.12	1	MAINTENANCE SHOP
			173,126,883.56	342,200	
			12,849,759.36	3,082	
					Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	RET_DATA	ASST_DESC_GENERAL	
2006	364	0	459,066.54	3,363	POLE WOOD 25 FT	
2006	364	0	39,332,576.65	66,628	POLE WOOD 30 FT	
2006	364	0	32,156,398.77	70,692	POLE WOOD 35 FT	
2006	364	0	56,191,354.17	114,167	POLE WOOD 40 FT	
2006	364	0	39,648,684.88	53,395	POLE WOOD 45 FT	
2006	364	0	4,081,863.63	3,095	POLE WOOD 50 FT	
2006	364	0	922,685.16	615	POLE WOOD 55 FT	
2006	364	0	257,561.32	294	POLE WOOD 60 FT	
2006	364	0	33,001.47	13	POLE WOOD 65 FT	
2006	364	0	(0.01)	0	POLE WOOD 70 FT	
2006	364	0	53,322.62	10	POLE WOOD 80 FT	
2006	364	0	1,971.82	10	POLE CONCRETE 25 FT	
2006	364	0	34,846.18	156	POLE CONCRETE 30 FT	
2006	364	0	1,100,975.21	1,179	POLE CONCRETE 40 FT	
2006	364	0	5,341,389.49	4,619	POLE CONCRETE 45 FT	
2006	364	0	265,024.24	66	POLE CONCRETE 50 FT	
2006	364	0	438.58	17	POLE STL 40 FT	
2006	364	0	18,433.88	3	POLE STEEL 60 FT	
2006	364	0	7,504.09	5	CONC/WOOD POLES	
2006	364	0	508,247.46	3,833	STEEL REINFORCE-WOOD POLES	
2006	364	0	49,998.83	36	POLE FIBERGLASS 30 FT.	
2006	364	0	0.00	0	POLE CONC 55 & 60 FT	
2006	364	0	205,189.57	842	MONOLITHING-WOOD POLES	
2006	364	0	58,516.03	32	POLE CONCRETE 35 FT	
2006	364	0	214,710.76	16	POLE CONC 55 FT	
2006	364	0	23,550.20	3	POLE CONC 75 FT	
2006	364	0	0.00	0	POLE WOOD 30 FT	
2006	364	0	16,676.39	2	POLE WOOD 30 FT	
2006	364	0	21,851.86	1	POLE WOOD 30 FT	
2006	364	0	181,005,859.79	343,092	POLE STEEL 70 FT	
Net Additions					7,878,976.23	892

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QTY	RET_DATA	ASST_DESC_GENERAL
2007	364	0	3,363		POLE WOOD 25 FT
2007	364	459,086.54	86,050		POLE WOOD 30 FT
2007	364	40,191,459.33	71,201		POLE WOOD 35 FT
2007	364	34,646,932.10	114,237		POLE WOOD 40 FT
2007	364	58,825,087.10	54,073		POLE WOOD 45 FT
2007	364	42,525,659.07	3,343		POLE WOOD 50 FT
2007	364	4,589,539.08	642		POLE WOOD 55 FT
2007	364	989,282.88	294		POLE WOOD 60 FT
2007	364	257,561.32	7		POLE WOOD 65 FT
2007	364	18,104.49	0		POLE WOOD 70 FT
2007	364	(0.01)	0		POLE WOOD 80 FT
2007	364	53,322.62	10		POLE CONCRETE 25 FT
2007	364	1,971.82	10		POLE CONCRETE 30 FT
2007	364	34,846.18	156		POLE CONCRETE 40 FT
2007	364	1,149,077.03	1,189		POLE CONCRETE 45 FT
2007	364	5,617,302.43	4,663		POLE CONCRETE 50 FT
2007	364	272,516.22	67		POLE STL 40FT
2007	364	438.58	17		POLE STEEL 60 FT
2007	364	18,433.88	3		CONC/WOOD POLES
2007	364	7,504.09	5		STEEL REINFORCE-WOOD POLES
2007	364	508,247.46	3,833		POLE FIBERGLASS 30 FT.
2007	364	49,998.83	36		POLE CONC 55 & 60FT
2007	364	0.00	0		MONOLITHING-WOOD POLES
2007	364	205,189.57	842		POLE CONCRETE 35 FT
2007	364	65,006.41	35		POLE CONC 55FT
2007	364	239,808.48	17		POLE CONC 75FT
2007	364	23,550.20	3		POLE WOOD 30 FT
2007	364	0.00	0		POLE WOOD 30 FT
2007	364	16,676.39	2		POLE WOOD 30 FT
2007	364	21,851.86	1		POLE STEEL 70 FT
2007	364	769.74	1		POLE WOOD 30 FT
2007	364	1,399.70	1		POLE WOOD 45 FT
2007	364	57,298.18	1		PRIMARY AIR
2007	364	3,367.96	2		POLE WOOD 30 FT
2007	364	836.82	3		POLE WOOD 45 FT
		190,852,126.35	344,107		
		9,846,266.56	1,015		

Net Additions

YEAR	PAN_FER(PAN_PNT	ASST_COST	ASST_QT*RET_DATA	ASST_DESC_GENERAL
2008	364	0	459,086.54	POLE WOOD 25 FT
2008	364	0	40,623,498.25	POLE WOOD 30 FT
2008	364	0	37,055,536.49	POLE WOOD 35 FT
2008	364	0	61,905,653.35	POLE WOOD 40 FT
2008	364	0	45,761,194.29	POLE WOOD 45 FT
2008	364	0	5,411,091.83	POLE WOOD 50 FT
2008	364	0	1,018,103.02	POLE WOOD 55 FT
2008	364	0	257,014.66	POLE WOOD 60 FT
2008	364	0	(19,137.96)	POLE WOOD 65 FT
2008	364	0	(0.01)	POLE WOOD 70 FT
2008	364	0	53,322.62	POLE WOOD 80 FT
2008	364	0	1,971.82	POLE CONCRETE 25 FT
2008	364	0	34,846.18	POLE CONCRETE 30 FT
2008	364	0	1,169,450.49	POLE CONCRETE 40 FT
2008	364	0	5,822,266.25	POLE CONCRETE 45 FT
2008	364	0	278,198.21	POLE CONCRETE 50 FT
2008	364	0	438.58	POLE STL 40FT
2008	364	0	18,433.88	POLE STEEL 60 FT
2008	364	0	7,504.09	CONC/WOOD POLES
2008	364	0	508,247.46	STEEL REINFORCE-WOOD POLES
2008	364	0	49,998.83	POLE FIBERGLASS 30 FT
2008	364	0	0.00	POLE CONC 55 & 60FT
2008	364	0	205,189.57	MONOLITHING-WOOD POLES
2008	364	0	63,875.45	POLE CONCRETE 35 FT
2008	364	0	352,236.74	POLE CONC 55FT
2008	364	0	23,550.20	POLE CONC 75FT
2008	364	0	0.00	POLE WOOD 30 FT
2008	364	0	16,676.39	POLE WOOD 30 FT
2008	364	0	21,851.86	POLE STEEL 30 FT
2008	364	0	769.74	POLE STEEL 70 FT
2008	364	0	1,399.70	POLE WOOD 30 FT
2008	364	0	3,367.96	POLE WOOD 45 FT
2008	364	0	836.82	POLE WOOD 30 FT
2008	364	0	1,881.28	POLE WOOD 45 FT
2008	364	0	10,256.68	POLE WOOD 40 FT
2008	364	0	3,190.83	POLE WOOD 45 FT
2008	364	0	201,121,802.09	POLE WOOD 30 FT
			344,137	
			10,269,675.74	
			30	

Net Additions

FCC Formula Rate Calculations for 2002-2009

**CALCULATION OF MAXIMUM POLE ATT.
RATES UNDER FCC FORMULA
DATA FOR YR ENDING
TAMPA ELECTRIC COMPANY**

	2001	2002	2003	2004	2005	2006	2007	2008
Investment in Pole Plant	\$145,758,114	\$152,178,844	\$157,518,936	\$164,961,746	\$175,507,263	\$181,544,235	\$191,722,520	\$204,302,717
-Depreciation Reserve for Poles	\$58,691,753	\$63,404,768	\$68,551,714	\$73,878,560	\$77,866,443	\$82,360,137	\$84,786,334	\$95,984,470
-Accumulated Deferred Taxes	\$13,009,783	\$13,601,758	\$12,417,808	\$14,096,742	\$15,349,545	\$15,975,343	\$16,803,446	\$17,282,401
Net Investment in Pole Plant	\$74,056,578	\$75,172,318	\$76,549,414	\$76,986,444	\$82,091,275	\$83,208,755	\$80,132,740	\$91,035,846
-Net Investment in Appurtenances	\$11,108,487	\$11,275,848	\$11,482,412	\$11,547,967	\$12,313,691	\$12,481,313	\$12,019,911	\$13,655,377
Net Investment in Bare Pole Plant	\$62,948,091.30	\$63,896,470.30	\$65,067,001.90	\$65,438,477.40	\$69,777,583.75	\$70,727,441.75	\$68,112,829	\$77,380,469
/Number of Poles--Equivalent	334,743	337,397	339,064	339,118	342,200	343,092	344,107	344,137
Net Investment per Bare Pole	\$188.05	\$189.38	\$191.90	\$192.97	\$203.91	\$206.15	\$197.94	\$224.85

Maintenance

Maintenance Expense - 593	\$ 11,149,023	\$ 9,302,632	\$ 6,600,917	\$ 7,774,501	\$ 10,303,224	\$ 15,595,683	\$ 18,286,947	\$ 19,150,378
Gross Investment in 364,365,369	\$ 430,081,653	\$ 448,510,556	\$ 467,374,633	\$ 486,436,987	\$ 515,788,856	\$ 537,060,170	\$ 560,244,230	\$ 589,093,256
-Accum Deferred Inc. Taxes 364,365,369	\$ 38,334,465	\$ 40,192,012	\$ 36,913,826	\$ 42,051,408	\$ 45,382,478	\$ 47,221,253	\$ 49,087,443	\$ 35,162,900
-Accum Depreciation 364,365,369	\$ 186,742,726	\$ 200,795,834	\$ 214,517,978	\$ 230,547,297	\$ 243,644,587	\$ 260,099,090	\$ 253,564,443	\$ 265,233,623
/Net Investment in 364,365,369	\$ 205,004,463	\$ 207,522,710	\$ 215,942,829	\$ 213,838,282	\$ 226,761,791	\$ 229,739,826	\$ 257,592,345	\$ 288,696,734
=Maintenance Carrying Charge	5.44%	4.48%	3.06%	3.64%	4.54%	6.79%	7.10%	6.63%

Depreciation

Annual Depreciation Rate for Poles	4.10%	4.10%	4.00%	4.00%	4.00%	4.00%	4.70%	4.70%
Gross Investment in Pole Plant	\$ 145,758,114	\$ 152,178,844	\$ 157,518,936	\$ 164,961,746	\$ 175,507,263	\$ 181,544,235	\$ 191,722,520	\$ 204,302,717
/Net Investment in Pole Plant	\$ 74,056,578	\$ 75,172,318	\$ 76,549,414	\$ 76,986,444	\$ 82,091,275	\$ 83,208,755	\$ 80,132,740	\$ 91,035,846
Gross/Net Adjustment	196.82%	202.44%	205.77%	214.27%	213.55%	218.18%	239.26%	224.42%
Deprec Rate Applied to Net Pole Plant	8.07%	8.30%	8.23%	8.57%	8.54%	8.73%	11.25%	10.55%

Administrative

Administrative Expense	\$ 84,468,283	\$ 89,480,447	\$ 83,123,887	\$ 86,889,504	\$ 91,717,073	\$ 107,500,340	\$ 107,435,494	\$ 97,983,818
Total Plant	\$ 4,495,459,285	\$ 5,062,229,549	\$ 5,147,137,285	\$ 4,896,586,369	\$ 5,044,614,011	\$ 5,326,269,243	\$ 5,608,572,927	\$ 5,950,453,888
-Accumulated Depreciation	\$ 1,764,204,580	\$ 1,887,073,221	\$ 1,975,558,186	\$ 1,722,615,060	\$ 1,811,740,999	\$ 1,910,446,808	\$ 1,964,773,800	\$ 2,003,045,163
-Accumulated Deferred Taxes	\$ 381,678,248	\$ 389,057,903	\$ 374,298,593	\$ 419,644,070	\$ 433,034,908	\$ 433,267,981	\$ 462,908,379	\$ 462,908,379
/Net Plant in Service	\$ 2,349,576,457	\$ 2,786,098,425	\$ 2,797,280,506	\$ 2,754,327,239	\$ 2,799,838,104	\$ 2,982,554,454	\$ 3,180,890,748	\$ 3,484,500,346
=Administrative Carrying Charge	3.60%	3.21%	2.97%	3.15%	3.28%	3.60%	3.38%	2.81%

Taxes

Tax Expense	\$ 208,871,533	\$ 197,938,573	\$ 191,338,911	\$ 203,866,089	\$ 215,192,909	\$ 216,281,973	\$ 224,136,765	\$ 217,422,148
Total Plant	\$ 4,495,459,285	\$ 5,062,229,549	\$ 5,147,137,285	\$ 4,896,586,369	\$ 5,044,614,011	\$ 5,326,269,243	\$ 5,608,572,927	\$ 5,950,453,888
-Accumulated Depreciation	\$ 1,764,204,580	\$ 1,887,073,221	\$ 1,975,558,186	\$ 1,722,615,060	\$ 1,811,740,999	\$ 1,910,446,808	\$ 1,964,773,800	\$ 2,003,045,163
-Accumulated Deferred Taxes	\$ 381,678,248	\$ 389,057,903	\$ 374,298,593	\$ 419,644,070	\$ 433,034,908	\$ 433,267,981	\$ 462,908,379	\$ 462,908,379
/Net Plant in Service	\$ 2,349,576,457	\$ 2,786,098,425	\$ 2,797,280,506	\$ 2,754,327,239	\$ 2,799,838,104	\$ 2,982,554,454	\$ 3,180,890,748	\$ 3,484,500,346
=Tax Carrying Charge	8.89%	7.10%	6.84%	7.40%	7.69%	7.25%	7.05%	6.24%

Return

Return	8.22%	8.38%	8.35%	8.27%	8.02%	7.89%	7.90%	8.33%
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Total Carrying Charge Factor

	34.21%	31.48%	29.45%	31.03%	32.07%	34.26%	36.67%	34.56%
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Cost Allocator - Cable

Space Occupied by Cable	1	1	1	1	1	1	1	1
/Total Useable Space	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
=Space Factor	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%

2001 2002 2003 2004 2005 2006 2007 2008

Maximum Rate - Cable

Investment Per Bare Pole	\$188.05	\$189.38	\$191.90	\$192.97	\$203.91	\$206.15	\$197.94	\$224.85
*Carrying Charges	34.21%	31.48%	29.45%	31.03%	32.07%	34.26%	36.67%	34.56%
*Charge Factor	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%	7.41%
=MAXIMUM CABLE RATE	\$4.77	\$4.42	\$4.19	\$4.44	\$4.84	\$5.23	\$5.38	\$5.76

Cost Allocator - Telecom

Space Allocated to Telecom	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
/Total Pole Space	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
=Space Factor	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%

Maximum Rate - Telecom

Investment Per Bare Pole	\$188.05	\$189.38	\$191.90	\$192.97	\$203.91	\$206.15	\$197.94	\$224.85
*Carrying Charges	34.21%	31.48%	29.45%	31.03%	32.07%	34.26%	36.67%	34.56%
*Charge Factor	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%	11.20%
=MAXIMUM TELECOM RATE	\$7.21	\$6.68	\$6.33	\$6.71	\$7.32	\$7.91	\$8.13	\$8.70

Phase-In Percentage 40%

x Rate Differential (Telecom - Cable) 60%

= Increment to Baseline Cable Rate \$2.44

\$0.98

\$1.71

\$5.74

MAXIMUM PHASED-IN TELECOM RATE

\$6.71

\$5.90

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DATA ENTRY AND SOURCE

Taxes 408.1 (Plant)	\$104,775,928	\$112,299,386	\$112,632,686	\$120,783,694	\$125,799,903	\$138,087,348	\$140,366,255	\$136,497,276
Taxes 409.1 Federal (Plant)	\$68,707,313	\$61,573,912	\$85,626,100	\$32,155,757	\$17,722,473	\$83,899,453	\$112,403,220	\$5,065,192
Taxes 409.1 Other (Plant)	\$12,065,209	\$14,014,189	\$19,445,671	\$5,705,106	\$2,897,219	\$13,559,335	\$18,663,176	\$3,299,537
Taxes 410.1 (Plant)	\$48,911,401	\$85,546,048	\$133,606,335	\$123,876,267	\$155,874,628	\$80,437,998	\$46,933,994	\$95,868,930
Taxes 411.1 Cr. (Plant)	\$41,802,164	\$71,106,141	\$155,411,509	\$75,907,423	\$84,482,171	\$97,180,001	\$91,795,887	\$22,435,482
Taxes 411.4 (Plant)	-\$4,456,070	-\$4,388,821	-\$4,560,372	-\$2,747,312	-\$2,619,143	-\$2,522,160	-\$2,433,993	-\$873,305
Total Taxes (Plant)	\$188,201,617	\$197,938,573	\$191,338,911	\$203,866,089	\$215,192,909	\$216,281,973	\$224,136,765	\$217,422,148
Gross Investment - Total Plant	\$4,495,459,285	\$5,062,229,549	\$5,147,137,285	\$4,896,586,369	\$5,044,614,011	\$5,326,269,243	\$5,608,572,927	\$5,950,453,888
Accum Prov for Deprec. --Utility Plant Acct 108	\$1,764,204,580	\$1,887,073,221	\$1,975,558,186	\$1,722,615,060	\$1,811,740,999	\$1,910,446,808	\$1,964,773,800	\$2,003,045,163
Gross Investment in 364	\$145,758,114	\$152,178,844	\$157,518,936	\$164,961,746	\$175,307,263	\$181,544,235	\$191,722,520	\$204,302,717
Gross Investment in 365	\$165,067,225	\$170,779,253	\$176,648,692	\$181,484,411	\$192,275,863	\$197,406,930	\$203,388,201	\$212,376,106
Gross Investment in 369	\$119,256,314	\$125,552,459	\$133,207,005	\$139,990,830	\$148,205,730	\$158,109,005	\$165,133,509	\$172,414,433
Sum	\$430,081,653	\$448,510,556	\$467,374,633	\$486,436,987	\$515,788,856	\$537,060,170	\$560,244,230	\$589,093,256
Pole Maintenance Expense 593	\$11,149,023	\$9,302,632	\$6,600,917	\$7,774,501	\$10,303,224	\$15,595,663	\$18,286,947	\$19,150,378
Total Administrative Expenses 920-931, 935	\$84,468,283	\$89,480,586	\$83,123,887	\$86,869,504	\$91,717,073	\$107,500,340	\$107,435,494	\$97,983,818

Utility Provided Data

Accum Deferred Inc. Taxes - Total Plant	\$381,678,248	\$389,057,903	\$374,298,593	\$419,644,070	\$433,034,908	\$433,267,981	\$462,908,379	\$462,908,379
Allocated Portion Gross Investment in 369	\$54,936,443	\$57,240,173	\$59,516,827	\$61,513,532	\$63,826,176	\$65,885,603	\$67,614,853	\$69,466,890
Allocated Portion Accum Deferred Taxes 369	\$4,960,891	\$5,170,824	\$4,750,958	\$5,406,836	\$5,658,641	\$5,814,979	\$5,953,010	-\$708,000
Allocated Portion Accum Depr Reserve 369	\$20,921,889	\$22,689,112	\$24,301,258	\$26,159,260	\$28,023,680	\$29,964,663	\$23,099,688	\$24,948,156
Ratio of Total to Partial Gross Investment 369	2.17	2.19	2.24	2.28	2.32	2.40	2.44	2.48

	2001	2002	2003	2004	2005	2006	2007	2008
Accum Deferred Inc. Taxes - 364	\$13,009,783	\$13,601,758	\$12,417,808	\$14,096,742	\$15,349,545	\$15,975,343	\$16,803,446	\$17,282,401
Accum Deferred Inc. Taxes - 365	\$14,555,554	\$15,248,400	\$13,862,708	\$15,649,935	\$16,893,449	\$17,291,412	\$17,745,158	\$17,882,256
Accum Deferred Inc. Taxes - 369**	\$10,769,128	\$11,341,854	\$10,633,310	\$12,304,731	\$13,139,484	\$13,954,498	\$14,538,839	-\$1,757
Sum	\$38,334,465	\$40,192,012	\$36,913,826	\$42,051,408	\$45,382,478	\$47,221,253	\$49,087,443	\$35,162,900
Accum Depr Reserve - 364	\$58,691,753	\$63,404,768	\$68,551,714	\$73,878,560	\$77,866,443	\$82,360,137	\$94,786,334	\$95,984,470
Accum Depr Reserve - 365	\$82,633,628	\$87,624,029	\$91,576,641	\$97,136,202	\$100,706,567	\$105,830,760	\$102,362,508	\$107,328,687
Accum Depr Reserve - 369**	\$45,417,345	\$49,767,037	\$54,389,623	\$59,532,535	\$65,071,577	\$71,908,193	\$56,415,601	\$61,920,466
Sum	\$186,742,726	\$200,795,834	\$214,517,978	\$230,547,297	\$243,644,587	\$260,099,090	\$253,564,443	\$265,233,623
Total taxes paid	\$208,871,533							
Total A&G Expense	\$89,480,447							
Depreciation Rate for Poles	4.10%	4.10%	4.00%	4.00%	4.00%	4.00%	4.70%	4.70%
Overall Rate of Return	8.22%	8.38%	8.35%	8.27%	8.02%	7.89%	7.90%	8.33%
Number of Poles	334,743	337,397	339,064	339,118	342,200	343,092	344,107	344,137

Presumptions

Total Pole Height	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Total Usable Space	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Total Unusable Pole Space	24	24	24	24	24	24	24	24
Unusable Space to be Allocated per Statute / Number of Entities	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
=Unusable Space Allocated to Telecom	5	5	5	5	5	5	5	5
Usable Space Occupied by Cable/Telecom	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
	1	1	1	1	1	1	1	1

DATA ENTRY AND SOURCE COMMENTS FERC or Other
FERC Form 1 Data

Taxes 408.1 (Plant) pg. 114, c 14
 Taxes 409.1 Federal (Plant) pg. 114, c 15
 Taxes 409.1 Other (Plant) pg. 114, c 16
 Taxes 410.1 (Plant) pg. 114, c 17
 Taxes 411.1 Cr. (Plant) pg. 114, c 18
 Taxes 411.4 (Plant) pg. 114, c 19
 Total Taxes (Plant) (sum)

Gross Investment - Total Plant pg. 200, b13

Accum Prov for Deprec.--Utility Plant Acct 108 pg. 219, b26

Gross Investment in 364 pg. 207, g 59/64
 Gross Investment in 365 pg. 207, g 60/65
 Gross Investment in 369 pg. 207, g 64/69
 Sum

Pole Maintenance Expense 593 pg. 322, b 119/149

Total Administrative Expenses 920-931, 935 pg 323, b 168/197

Utility Provided Data

Accum Deferred Inc. Taxes - Total Plant Avg 2002- 2003 ADIT used for 2001 in lieu of TECO input of \$0

Allocated Portion Gross Investment in 369

Allocated Portion Accum Deferred Taxes 369

Allocated Portion Accum Depr Reserve 369

Ratio of Total to Partial Gross Investment 369

Accum Deferred Inc. Taxes - 364 Avg 2002- 2003 ADIT used for 2001 in lieu of TECO input of \$0
 Accum Deferred Inc. Taxes - 365 Avg 2002- 2003 ADIT used for 2001 in lieu of TECO input of \$0
 Accum Deferred Inc. Taxes - 369** **Prorated to reflect total acct inv \$
 Sum

Accum Depr Reserve - 364 **Prorated to reflect total acct inv \$
 Accum Depr Reserve - 365
 Accum Depr Reserve - 369**
 Sum

Total taxes paid

Total A&G Expense

Depreciation Rate for Poles Provided by TECO Cost Accounting (FCC Ex 1)

Overall Rate of Return FPSC ROR w/ Mid Point Allowed ROE

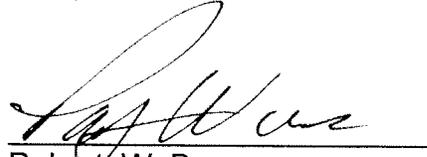
Number of Poles CPR (FCC Ex 15)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing has been furnished via U.S. Mail to Michael S. Hooker, Esq., Glenn Rasmussen Fogarty & Hooker, P.A., 100 S. Ashley Drive, Suite 1300, Tampa, Florida 33602, and Robert Williams, Esq., Troutman Sanders LLP, Bank of America Plaza, 600 Peachtree Street, N.E., Suite 5200, Atlanta, GA, 30306-2216, on this 30th day of December 2009.

Respectfully submitted,

By:



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Ruden McClosky
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Of Counsel Admitted Pro Hac Vice

Dated: December 30, 2009