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

In the Matter of	)	
	)	
Implementation of Section 703(e)	)	
of the Telecommunications Act	)	
of 1996	)	CS Docket No. 97-151
	)	
Amendment of the Commission's Rules	)	
and Policies Governing Pole	)	
Attachments	)	

REPORT AND ORDER

Adopted: February 6, 1998 Released: February 6, 1998

By the Commission:

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I. INTRODUCTION

1. In this Report and Order ("Order"), the Commission adopts rules implementing Section 703 of the Telecommunications Act of 1996 ("1996 Act") relating to pole attachments. Section 703 requires the Commission to prescribe regulations to govern the charges for pole attachments used by telecommunications carriers to provide telecommunications services. Section 703 also requires that the Commission's regulations ensure that a utility charges just, reasonable, and nondiscriminatory rates for

pole attachments. We adopt the rules set forth in Appendix A hereto based upon the comments and reply comments filed in response to the Notice of Proposed Rulemaking in this docket (the "Notice"). A list of commenters, as well as the abbreviations used in this Order to refer to such parties, is contained in Appendix B hereto. The commenters generally represent the interests of one of the following three categories: (1) utility pole owners; (2) cable operators; and (3) telecommunications carriers.

II. BACKGROUND

2. The purpose of Section 224 of the Communications Act 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. The rules we adopt in this Order further the pro-competitive goals of Section 224 and the 1996 Act by giving incumbents and new entrants in the telecommunications market fair and nondiscriminatory access to poles and other facilities, while safeguarding the interests of the owners of those facilities.

3. As originally enacted, Section 224 was designed to ensure that utilities' control over poles and rights-of-way did not create a bottleneck that would stifle the growth of cable television. Congress sought to prohibit 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." As mandated by Section 224, the Commission established a formula to calculate maximum rates that utilities could charge cable operators for the installation of attachments on utility facilities where such rates are not regulated by a state. In subsequent proceedings the Commission amended and clarified its methodology for establishing rates and its complaint process.

4. The 1996 Act amended Section 224 in several important respects. While previously the protections of Section 224 had applied only to cable operators, the 1996 Act extended those protections to telecommunications carriers as well. Further, the 1996 Act gave cable operators and telecommunications carriers a mandatory right of access to utility poles, in addition to maintaining a scheme of rate regulation governing such attachments. In the Local Competition Order, we adopted a number of rules implementing the new access provisions of Section 224.

5. As amended by the 1996 Act, Section 224 defines a utility as one "who is a local exchange carrier or an electric, gas, water, steam, or other public utility and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for wire communications." The 1996 Act,

however, specifically excluded incumbent local exchange carriers ("ILECs") from the definition of telecommunications carriers with rights as pole attachers. 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. This is consistent with Congress' intent that Section 224 promote competition by ensuring the availability of access to new telecommunications entrants.

6. Section 224 contains two separate provisions governing maximum rates for pole attachments, one of which covers attachments used to provide cable service and one of which covers attachments for telecommunications services (including attachments used jointly for cable and telecommunications). Section 224(b)(1), which was not amended by the 1996 Act, grants the Commission authority to regulate the rates, terms, and conditions governing pole attachments for cable service to ensure that they are just and reasonable. Section 224(d)(1) defines a just and reasonable rate as ranging from the statutory minimum (incremental costs) to the statutory maximum (fully allocated costs). Incremental costs include pre-construction survey, engineering, make-ready and change-out costs incurred in preparing for cable attachments. Fully allocated costs refer to the portion of operating expenses and capital costs that a utility incurs in owning and maintaining poles that is equal to the portion of usable pole space that is occupied by an attacher.

7. Separately, Section 224(e)(1), the subject of this Order, governs rates for pole attachments used in the provision of telecommunications services, including single attachments used jointly to provide both cable and telecommunications service. Under this section, the Commission must prescribe, no later than two years after the date of enactment of the 1996 Act, regulations "to govern charges for pole attachments used by telecommunication carriers to provide telecommunications services, when the parties fail to resolve a dispute over such charges." Section 224(e)(1) states that such regulations "shall ensure that a utility charges just, reasonable, and nondiscriminatory rates for such pole attachments." The section also sets forth a transition schedule for implementation of the new rate formula for telecommunications carriers. Until the effective date of the new formula governing telecommunications attachments, the existing pole attachment rate methodology of cable services is applicable to both cable television systems and to telecommunications carriers.

8. In the Notice, the Commission sought comment on implementing a methodology to ensure just, reasonable, and nondiscriminatory maximum pole attachment and conduit rates for telecommunications carriers. Under the present formula, a portion of the total annual cost of a pole is

included in the pole attachment rate based on the portion of the usable space occupied by the attaching entity. Under the 1996 Act's amendments, the portion of the total annual cost included in the pole attachment rate for cable systems and telecommunications carriers providing telecommunications services will be determined under a more delineated method. This method allocates the costs of the portion of the total pole cost associated with the usable portion of the pole and the portion of the total pole cost associated with the unusable portion of the pole in a different manner. The Commission also sought comment on how to ensure that rates charged for use of rights-of-way are just, reasonable, and nondiscriminatory.

9. The rules we adopt today implement the plain language of Section 224. That section provides that the regulations promulgated will apply "when the parties fail to resolve a dispute over such charges." Accordingly, and as discussed below, we encourage parties to negotiate the rates, terms, and conditions of pole attachment agreements. Although the Commission's rules will serve as a backdrop to such negotiations, we intend the Commission's enforcement mechanisms to be utilized only when good faith negotiations fail. Based on the Commission's history of successful implementation and enforcement of rules governing attachments used to provide cable service, we believe that the new rules we adopt today will foster competition in the provision of communications services while guaranteeing fair compensation for the utilities that own the infrastructure upon which such competition depends.

III. PREFERENCE FOR NEGOTIATED AGREEMENTS AND COMPLAINT RESOLUTION PROCEDURES

A. Background

10. The 1996 Act amended Section 224 by adding a new subsection (e)(1) to:

> . . . govern the charges for pole attachments used by telecommunications providers to provide telecommunications services when the parties fail to resolve a dispute over such charges. Such regulations shall ensure that a utility charges just, reasonable and nondiscriminatory rates for pole attachments.

The statute, legislative policy, administrative authority, and current industry practices all make private negotiation the preferred means by which pole attachment arrangements are agreed upon between a utility pole owner and an attaching entity. Pursuant to the Commission's authority to provide for just, reasonable, and nondiscriminatory rates, terms and conditions for pole attachments, attaching entities have recourse to the Commission when unable to resolve a dispute with a utility pole

owner. The Commission's rules establish a specific complaint process. Under the current rule, in reviewing a complaint about rates, the Commission will compare the utility's proposed rate to a maximum rate calculated using the statutory formula.

11. In proposing a methodology to implement Section 224(e), the Commission stated in the Notice that the Commission's role is limited to circumstances when the parties fail to resolve a dispute and that negotiations between a utility and an attacher should continue to be the primary means by which pole attachment issues are resolved. The Commission also indicated that Congress recognized the importance of access in enhancing competition in telecommunications markets and that parties in a pole attachment negotiation do not have equal bargaining positions. To further Congressional intent to foster competition in telecommunications, the Commission proposed to apply to telecommunications carriers the Commission's existing complaint rules developed to resolve pole attachment rate disputes between cable operators and utilities.

12. Some telecommunications carriers and utility pole owners agree that negotiations between a utility and an attaching entity will continue, under Section 224(e), to be the primary means by which pole attachment issues are resolved. Several utility pole owners, however, suggest a number of changes to the complaint process, such as adding a mandatory negotiation period and establishing a statute of limitations and a minimum amount in controversy. American Electric, et al., also contend that meaningful negotiations can occur "only when the default pricing mechanism established by the Commission is somewhere close to the price on which the parties would agree absent such regulation." Attaching entities respond that the American Electric, et al., proposals would eliminate recourse to the Commission, contrary to the content and spirit of the law.

13. The Association of Local Telecommunications Services ("ALTS") asserted in its comments in response to the Pole Attachment Fee Notice that its members have experience attempting to obtain pole attachments from numerous utilities, and many negotiations were unsatisfactory in part due to the intransigence by or blatant refusal of utilities to negotiate. USTA, a national trade association representing over 1,000 LECs, contends that while the most efficient manner to determine just and reasonable pole attachment rates is that of permitting pole owners and attachers to negotiate reasonable agreements, the proposal by American Electric, et al., contravenes the statute.

14. Electric utility pole owners oppose the continued use of the current negotiation process and complaint procedures established for cable operators, claiming the current regulatory scheme has

resulted in government-sponsored unilateral contract modification and subsidization of the cable industry by the electric utility ratepayer. American Electric, et al., contend that the Commission must recognize that the bargaining relationship between electric utilities and cable companies has changed since 1978 when Congress provided the cable television industry with access to the distribution poles of utilities at just and reasonable rates. In asserting that attaching entities no longer represent an industry that needs rate regulation under Section 224, American Electric, et al., acknowledge that in 1978 "Congress was concerned with the cable companies' inferior bargaining position vis-a-vis utilities and wanted to assist an industry in its infancy." USTA interprets Congressional intent as expecting the Commission to intervene and rely on the statutory formula only in instances where negotiating parties are unable to reach a mutually acceptable agreement. USTA further states that the Commission has established and maintained a case-by-case dispute resolution process since 1978, rather than adopting a uniform pole attachment rate prescription process in compliance with that Congressional mandate. Cable and telecommunications carriers assert that potential and existing attaching entities do still need pole attachment rate regulation because they are still not able to bargain from a level position with utility pole owners. Cable operators and telecommunications carriers urge the Commission to extend the existing negotiation and complaint resolution system to telecommunications carriers.

15. Some attaching entities suggest that the Commission impose on itself a 90-day time frame in which to issue a decision on a pole attachment complaint. Other cable and telecommunications carriers request that the Commission impose upon utility pole owners the requirement that pole attachment agreements between private parties be on public record so that an attaching entity will have notice of: (1) the expectations of the utility; and (2) the terms provided to other attaching entities. The result would be that the most favored provisions from various agreements would then be available to all attaching entities. Pole owners assert that attaching entities have no legitimate expectation that all provisions be available to all attaching entities.

B. Discussion

16. Our rules for complaint resolution will only apply when the parties are unable to arrive at a negotiated agreement. We affirm our belief that the existing methodology for determining a presumptive maximum pole attachment rate, as modified in this Order, facilitates negotiation because the parties can predict an anticipated range for the pole attachment rate. We further conclude that the current complaint procedures are adequate to establish just and reasonable rates, terms, and conditions

for pole attachments. No party has demonstrated that the Commission's time for resolution has been a problem in the past. While we will not impose a deadline for Commission action, we will continue to endeavor to resolve complaints expeditiously. An uncomplicated complaint process and a clear formula for rate determination are essential to promote the use of negotiations for pole attachment rates, terms, and conditions. We are committed to an environment where attaching entities have enforceable rights, where the interests of pole owners are recognized, and where both parties can negotiate for pole attachment rates, allowing the availability of telecommunications services to expand.

17. We agree with attaching entities that time is critical in establishing the rate, terms, and conditions for attaching. Prolonged negotiations can deter competition because they can force a new entrant to choose between unfavorable and inefficient terms on the one hand or delayed entry and, thus, a weaker position in the market on the other. For these reasons, we reject a proposal by utilities that we mandate a 180-day negotiation period prior to filing a complaint with the Commission. We agree with cable and telecommunications carriers that such a requirement would not be conducive to a pro-competitive, deregulatory environment. Such an extended period of time could delay a telecommunications carrier's ability to provide service and unnecessarily obstruct the process.

18. We disagree with utilities suggesting that, in addition to the existing time frames, the pole owner should receive 30 days' notice by a cable operator or telecommunications carrier of any intention to file a complaint. Such a notice requirement would be redundant under our rule and would unnecessarily prolong the resolution of disputes. The current rule provides for a 45-day period in which the utility pole owner must respond to the request for access filed by a cable operator or telecommunications carrier seeking to install an attachment. A complaint to the Commission must be filed within 30 days of the denial of a request for access. The utility then has an additional 30 days to respond to the complaint. When a cable operator or a telecommunications carrier believes it has cause to complain that a pole attachment rate, term, or condition is not just or reasonable, a detailed set of data and information is required under the current rule. A utility has 30 days in which to respond to an attaching entity's request for the data and information regarding the rate, term, or condition required for the complaint. Under the present rules, the utility has had communication with the attaching entity prior to the filing of the complaint, to such a degree as is necessary to understand the issues in conflict outlined in the complaint. The utility has sufficient notice of the issues involved, making additional notice requirements unnecessary.

19. GTE suggests that we impose a one year statute of limitations on the filing of

a complaint and suggests an amount in controversy threshold of $5,000. We view these proposals as unnecessarily restrictive as they could foreclose remedy of an unjust or unreasonable rate, term, or condition of pole attachments, especially for small enterprises. There is no provision in the statute for such restrictions. Establishing a threshold of any dollar amount could preclude relief to small entities and would be inconsistent with Section 257 and the pro-competitive goals of the 1996 Act.

20. Utility pole owners must provide access to attaching entities on a non-discriminatory basis. While we do not agree that all pole attachment agreements have to be identical, differing provisions must not violate the statutory requirement that terms be just, reasonable, and nondiscriminatory. We believe that these statutory standards are enforceable under the current rule.

21. We believe it is implicit in our current rule that all parties must negotiate in good faith for non-discriminatory access at just and reasonable pole attachment rates. In the Local Competition Order, the Commission addressed the requirement of Section 251 that requires an ILEC to provide interconnection and other rights to new entrants, and observed that new entrants have little to offer the incumbent. Rather, these new competitors seek to reduce the incumbent s subscribership and weaken the incumbent s dominant position in the market. An ILEC is likely to have scant, if any, economic incentive to reach agreement. In the Local Competition Order, the Commission determined that a utility stood in a position vis-a-vis the competitive telecommunications provider seeking pole attachment agreements that was virtually indistinguishable from that of the ILEC with respect to a new entrant seeking interconnection agreements under Sections 251 and 252 of the 1996 Act. We find that a utility's demand for a clause waiving the licensee's right to federal, state, or local regulatory relief would be per se unreasonable and an act of bad faith in negotiation. In particular, a request that a pole attachment agreement include a clause waiving statutory rights to file a complaint with the Commission is per se unreasonable.

IV. CHARGES FOR ATTACHING

A. Poles

1. Formula Presumptions

22. In determining a just and reasonable rate, two elements of the pole are examined: usable space and other than usable space. The costs relating to these elements are allocated to those using the pole. In the Second Report and Order, consistent with Section 224(d)(2), the Commission defined total

usable space as the space on the utility pole above the minimum grade level that is usable for the attachment of wires, cables, and related equipment. This determination was based upon survey results, consideration of the National Electric Safety Code ("NESC"), and practical engineering standards used in constructing utility poles. The Commission found that "the most commonly used poles are 35 and 40 feet high, with usable spaces of 11 to 16 feet, respectively." The Commission recognized the NESC guideline that 18 feet of the pole space must be reserved for ground clearance and that six feet of pole space is for setting the depth of the pole. To avoid a pole by pole rate calculation, the Commission adopted rebuttable presumptions of an average pole height of 37.5 feet, an average amount of usable space of 13.5 feet, and an average amount of 24 feet of unusable space on a pole. The Commission established a rebuttable presumption of one foot as the amount of space a cable television attachment occupies. These presumptions serve as the premise for calculating pole attachment rates under the current formula.

23. A group of electric utilities filed a white paper ("White Paper") in anticipation of the Notice and the Pole Attachment Fee Notice in which they suggest that an increase in the current presumptive pole height is appropriate. The White Paper asserts that over time, and with increased demand, the average pole height has increased to 40 feet. At the same time, the White Paper contends that the usable space presumption should be reduced from 13.5 feet to 11 feet. The Commission sought comment on these presumptions in the Pole Attachment Fee Notice and sought further comment in the Notice to establish a full record for attachments made by telecommunications carriers under the 1996 Act.

24. We will address changing the existing presumptions in the Pole Attachment Fee Notice rulemaking. Until resolution of that proceeding, we will apply our presumptions as they presently exist and proceed with the implementation under the 1996 Act of a methodology used in the provision of telecommunications services by telecommunications carriers and cable operators.

25. The Notice also sought comment on an issue raised by Duquesne Light in its reconsideration petition of the Commission's decision in the Local Competition Order proceeding. Duquesne Light advocates that the number of physical attachments of an attaching entity is not necessarily reflective of the burden on the pole, and therefore of the costs relating to the attachment. Duquesne Light states that varying attachments place different burdens on the pole and proposes that any presumption include factors addressing weight and wind loads. We will address whether any presumptions should reflect these factors in the Pole Attachment Fee Notice rulemaking.

2. Restrictions on Services Provided over Pole Attachments

26. In the Notice, we sought comment on whether the Commission's decision in Heritage Cablevision Associates of Dallas, L.P. v. Texas Utilities Electric Company ("Heritage") should be extended. In Heritage, a cable operator provided traditional cable services as well as nontraditional services through its facilities. Those facilities consisted of coaxial cable lashed to aerial support strands and fiber optic cable overlashed to the aerial support strands. The nontraditional services provided by the cable operator consisted of non-video broadband communications services, including data transmission services. The pole owner attempted to charge the cable operator an additional, unregulated rate for those poles with pole attachments supporting the facilities transmitting both video signals and data.

27. In Heritage, which was decided prior to the 1996 Act, the Commission determined that the provision by a cable operator of both traditional cable services and nontraditional services on a commingled basis over a single network within the cable operator's franchise area justified only a single, regulated pole attachment charge by the utility pole owner. The Commission affirmed its longstanding view of cable as a provider of video and nonvideo broadband services and determined that its pole attachment authority includes nonvideo broadband services under Section 224. The Commission stated that its jurisdiction under Section 224 was not limited by definitions emanating from the Cable Communications Policy Act of 1984 ("Cable Act of 1984") because such definitions apply only for purposes of Title VI. Further, it stated that, even when Section 224 is read in conjunction with the Cable Act of 1984, the Cable Act of 1984 and its legislative history indicate that a cable system providing both video and nonvideo broadband services is not excluded from the benefits of Section 224.

28. Whether Heritage continues to apply raises significant issues as cable operators expand into new service areas, such as Internet services. Generally, commenters disagree as to the applicability of Heritage since the passage of the 1996 Act amendments to Section 224. Some utility pole owners contend that Heritage has been overruled by the 1996 Act, but they do not agree as to the effect of the overruling. Some of the utility pole owners argue that the new Sections 224(d)(3) and 224(e) create a new regime requiring new rules, and therefore Heritage is no longer applicable. Some of these commenters also argue that, after the year 2001, a cable company is entitled to the old incremental rate under Section 224(d)(3) if the pole attachment is used solely to provide cable services. They contend that the use of a cable attachment to provide nonvideo services in addition to video would not be an

attachment used solely for cable service and such attachment would be subject to the Section 224(e) telecommunications services rate. Other utility pole owners argue that the provision of services other than cable and telecommunications services are outside the scope of Section 224 and are therefore not subject to the Commission's jurisdiction. They contend that such services will be subject to market place negotiations.

29. Cable operators generally contend that Heritage has not been overruled by the 1996 Act. They also contend that high speed Internet access is a cable service and an operator offering such service should not be assessed the Section 224(e) telecommunications services rate. Telecommunications carriers generally agree that Heritage has not been overruled, and therefore the pre-1996 Act rules continue to provide that a utility should not charge different pole attachment rates based on the type of service provided by the cable operator, and further that a utility should be prohibited from placing unreasonable restrictions on the use of pole attachments by permitted attachers. Some of the telecommunications carriers, however, oppose any extension of Heritage, arguing that such extension would provide preferential treatment for cable operators. At least one telecommunications carrier argues that the distinctions established by Congress effectively overrule Heritage and that cable operators providing additional services besides video service are to be treated as telecommunications carriers under Section 224.

30. We disagree with the utility pole owners who assert that the Heritage decision has been "overruled" by the passage of the 1996 Act insofar as it held that a cable system is entitled to a Commission-regulated rate for pole attachments that the cable system uses to provide commingled data and video. The definition of "pole attachment" does not turn on what type of service the attachment is used to provide. Rather, a "pole attachment" is defined to include any attachment by a "cable television system." Thus, the rates, terms and conditions for all pole attachments by a cable television system are subject to the Pole Attachment Act. Under Section 224(b)(1), the Commission has a duty to ensure that such rates, terms, and conditions are just and reasonable. We see nothing on the face of Section 224 to support the contention that pole owners may charge any fee they wish for Internet and traditional cable services commingled on one transmission facility.

31. The history of Section 224 further supports our conclusion. The purpose of the amendments to Section 224 made by the 1996 Act was similar to the purpose behind Section 224 when it was first enacted in 1978, i.e., to remedy the inequitable position between pole owners and those

seeking pole attachments. The nature of this relationship is not altered when the cable operator seeks to provide additional service. Thus, it would make little sense to conclude that a cable operator should lose its rights under Section 224 by commingling Internet and traditional cable services. Indeed, to accept contentions that cable operators expanding their services to include Internet access no longer are entitled to the benefits of Section 224 would penalize cable entities that choose to expand their services in a way that will contribute "to promot[ing] competition in every sector of the communications industry," as Congress intended in the 1996 Act.

32. Having decided that cable operators are entitled to the benefits of Section 224 when providing commingled Internet and traditional cable services, we next turn to the appropriate rate to be applied. We conclude, pursuant to Section 224 (b)(1), that the just and reasonable rate for commingled cable and Internet service is the Section 224(d)(3) rate. 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 Section 224(d)(3) rate will encourage greater competition in the provision of Internet service and greater benefits to consumers.

33. We emphasize that our decision to apply the Section 224(d)(3) rate is based on our regulatory authority under Section 224(b)(1). Several commenters suggested that cable operators providing Internet service should be required to pay the Section 224(e) telecommunications rate. We disagree. The Universal Service Order concluded that Internet service is not the provision of a telecommunications service under the 1996 Act. Under this precedent, a cable television system providing Internet service over a commingled facility is not a telecommunications carrier subject to the revised rate mandated by Section 224(e) by virtue of providing Internet service. We note, however, that Congress has directed the Commission to undertake a review of the implementation of the provisions of the 1996 Act relating to universal service, and to submit a report to Congress no later than April 10, 1998. That report is to provide a detailed description of, among other things, the extent that the Commission's definition of "telecommunications" and "telecommunications service," and its application of those definitions to mixed or hybrid services, are consistent with the language of the 1996 Act. We do not intend, in this proceeding, to foreclose any aspect of the Commission's ongoing examination of those issues.

34. We need not decide at this time, however, the precise category into which

Internet services fit. Such a decision is not necessary in order to determine the pole attachment rate applicable to cable television systems using pole attachments to provide traditional cable services and Internet services. Regardless of whether such commingled services constitute "solely cable services" under Section 224(d)(3), we believe that the subsection (d) rate should apply. If the provision of such services over a cable television system is a "cable service" under Section 224(d)(3), then the rate encompassed by that section would clearly apply. Even if the provision of Internet service over a cable television system is deemed to be neither "cable service" nor "telecommunications service" under the existing definitions, the Commission is still obligated under Section 224(b)(1) to ensure that the "rates, terms and conditions [for pole attachments] are just and reasonable," and, as Section 224(a)(4) states, a pole attachment includes "any attachments by a cable television system." And we would, in our discretion, apply the subsection (d) rate as a "just and reasonable rate" for the pro-competitive reasons discussed above. We again emphasize the pervasive purpose of the 1996 Act and the premise of the Commission's Heritage decision, to encourage expanded services, and that a higher or unregulated rate deters this purpose. We note that in the one case where Congress affirmatively wanted a higher rate for a particular service offered by a cable system, it provided for one in section 224(e). In requiring that the Section 224(d) rate apply to any pole attachment used 'solely to provide cable service,' we do not believe Congress intended to bar the Commission from determining that the Section 224(d) rate methodology also would be just and reasonable in situations where the Commission is not statutorily required to apply the higher Section 224(e) rate.

35. We also disagree with utility pole owners that submit that all cable operators should be "presumed to be telecommunications carriers" and therefore charged at the higher rate unless the cable operator certifies to the Commission that it is not "offering" telecommunications services. We think that a certification process would add a burden that manifests no benefit. We believe the need for the pole owner to be notified is met by requiring the cable operator to provide notice to the pole owner when it begins providing telecommunication services. The rule we adopt in this Order will reflect this required notification. We also reject the suggestions of utility pole owners that the Commission should be responsible for monitoring and enforcing a certification of cable operators regarding their status. The record does not demonstrate that cable operators will not meet their responsibilities. If a dispute arises, the Commission's complaint processes can be invoked.

3. Wireless Attachments

a. Background

36. In the Notice, the Commission stated that, although wireless carriers have not historically affixed their equipment to utility poles, the 1996 Act gives them the right to do so and entitles them to rates consistent with Commission rules. The Local Competition Order held that Section 224 does not describe the specific type of telecommunications equipment that an entity may attach, and that establishing an exhaustive list of equipment is not advisable or even possible.

37. Some utility pole owners argue for limiting the type of equipment that a party may attach to facilities and assert that wireless carriers should not have the benefit of Section 224. They rely on legislative history accompanying the 1978 Pole Attachment Act and the failure of Section 224 to include the word "wireless" in its language. According to the pole owners, Congress intended to cover pole attachments only for wire communications, and would have explicitly expanded that scope in the 1996 Act if it wanted to do so. These interests cite the 1977 Senate Report stating, "Federal involvement in pole attachment matters will occur only where space on a utility pole has been designated and is actually being used for communications services by wire or cable." In contrast, wireless providers assert that they are telecommunications carriers entitled to the protection of Section 224. These parties cite Section 3(44), which defines "telecommunications carrier" as "any provider of telecommunications services," and Section 3(46), which defines "telecommunications service" as "the offering of telecommunications for a fee . . . regardless of the facilities used." Wireless providers contend they do not have easy alternatives for placing their equipment because they have had difficulty getting permits to erect antennas. They argue that telecommunications competition arises in many forms and the Commission's regulations should not deter any particular method of delivering services. In short, they ask the Commission to decide that Section 224 "unambiguously affords all telecommunications providers a legal right of access to poles."

38. Telecommunications carriers and the utility pole owners acknowledge that determining an appropriate formula for wireless attachments is difficult. Some utility pole owners assert it is beyond the scope of this rulemaking. Some telecommunications carriers and utility pole owners agree that previous and proposed rate formulas do not lend themselves to the requirements of wireless attachments. On the other hand, wireless interests emphasize that pole attachment fees are assessed for the use of space, and should not depend primarily on what type of equipment occupies that space. These parties contend that rates for wire and wireless attachments should be the same so

that
discriminatory pricing does not occur.

b. Discussion

39. Wireless carriers are entitled to the benefits and protection of Section 224. Section
224(e)(1) plainly states: "The Commission shall . . . prescribe regulations to govern the charges for pole
attachments used by telecommunications carriers to provide telecommunications services." This
language encompasses wireless attachments.

40. Statutory definitions and amendments by the 1996 Act demonstrate Congress' intent to
expand the pole attachment provisions beyond their 1978 origins. Section 224(a)(4) previously defined
a pole attachment as "any attachment by a cable television system," but now states that a pole attachment
is "any attachment by a cable television system or provider of telecommunications service." Moreover,
in Section 224(d)(3), Congress applied the current pole attachment rules as interim rules for "any
telecommunications carrier . . . to provide any telecommunications service." In both sections, the use
of the word "any" precludes a position that Congress intended to distinguish between wire and wireless
attachments. Section 224(e)(1) contains three terms whose definitions support this conclusion. Section
3(44) defines telecommunications carrier as "any provider of telecommunications services." Section
3(46) states that telecommunications services is the "offering of telecommunications for a fee directly to
the public . . . regardless of the facilities used," and Section 3(43) specifies telecommunications to be "the
transmission, between or among points specified by the user, or information of the user's choosing,
without change in the form or content of the information as sent and received." The use of "any" in
Section 3(44) precludes limiting telecommunications carriers only to wireline providers. Wireless
companies meet the definitions in Sections 3(43) and 3(46). In fact, the Commission has already
recognized that cellular telephone, mobile radio, and PCS are telecommunications services.

41. There are potential difficulties in applying the Commission's rules to wireless pole
attachments, as opponents of attachment rights have argued. They note that previous and proposed rate
formulas do not account for the unusual requirements of wireless attachments. These parties assert that
such attachments are usually more than a traditional box-like device and cable wires strung between poles.
They include an antenna or antenna clusters, a communications cabinet at the base of the pole, coaxial
cables connecting antennas to the cabinet, concrete pads to support the cabinet, ground wires and
trenching, and wires for telephone and electric service. One commenter noted that there are "far greater
costs and operational considerations" for wireless attachments.

42. There is no clear indication that our rules cannot accommodate wireless attachers' use of poles when negotiations fail. When an attachment requires more than the presumptive one-foot of usable space on the pole, or otherwise imposes unusual costs on a pole owner, the one-foot presumption can be rebutted. In addition, when wireless devices do not need to use every pole in a utility's inventory, the parties can agree on some reasonable percentage of poles for developing a presumptive number of attaching entities. If parties cannot modify or adjust the formula to deal with unique attachments, and the parties are unable to reach agreement through good faith negotiations, the Commission will examine the issues on a case-by-case basis.

4. Allocating the Cost of Other than Usable Space

a. Method of Allocation

43. To determine the rate that a telecommunications carrier must pay for pole attachments, Section 224(e)(2) provides that:

> A utility shall apportion the cost of providing space on a pole, duct, conduit, or right-of-way other than the 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.

This statutory language requires an equal apportionment of two-thirds of the costs of providing other than usable ("unusable") space among all attaching entities. The Commission proposed a methodology to apportion these costs which translates to the following formula:

Unusable Space Factor	= 2/3 X	Net Cost of Unusable Space Pole Height	X	a Bare Pole Number of Attachers	X	Carrying Charge Rate

44. We adopt our proposed methodology to apportion the cost of unusable space. We believe this formula most accurately determines the apportionment of cost of unusable space. As mandated by Congress, it equally apportions two-thirds of the costs of unusable space among attaching entities.

b. Counting Attaching Entities

(1) Telecommunications Carriers, Cable Operators and Non-Incumbent LECs

45. Under Section 224(e)(2), the number of attaching entities is significant because the costs of the unusable space assessed to each entity decreases as the number of entities

increases. Therefore, determining which entities are attachers and which are not has a substantial effect on the proper apportionment of the costs of unusable space. The Commission proposed in the Notice that any telecommunications carrier, cable operator, or LEC attaching to a pole be counted as a separate entity for the purposes of the apportionment of two-thirds of the costs of the unusable space.

46. We will count as separate entities any telecommunications carrier, any cable operator, and any non-incumbent LEC. This approach is consistent with the language of the statute and comports with Congress' intent to count all attaching entities when allocating the costs of unusable space. The statute uses the term "entities" not "telecommunications carriers" when indicating how the costs of unusable space should be allocated. We interpret this use to indicate the inclusion of cable operators as well as telecommunications carriers when allocating the cost of unusable space.

47. Some commenters argue that cable operators providing only cable service should not be counted because it would result in requiring the incumbent LEC that owns a pole, but not the competitors of the incumbent LEC, to subsidize "pure" cable attachments. Similarly, other commenters argue that cable operators that solely provide cable service should not be included in the count because their attachments are not subject to rate regulation under Section 224(e)(2). We find these arguments unpersuasive. The statutory language compels a different conclusion. The statute states that the cost of unusable space shall be allocated under an equal apportionment "among all attaching entities." While the cable operator rate is different, Congress made no indication that it intended to exclude any attaching entity when apportioning the costs of unusable space. On the contrary, the legislative history of the 1996 Act states that all attaching entities should be counted. Congress explicitly provided for a different formula when determining pole attachment rates for cable operators providing cable services, but it made no such provision for the exclusion of those operators in the allocation of costs for unusable space. Moreover, Section 224(e)(2) does not restrict the use of the term "entities" to those entities that pay rates under Section 224(e).

(2) Pole Owners Providing Telecommunications Services and Incumbent LECs

48. In the Notice, the Commission tentatively concluded that, where a pole-owning utility is providing telecommunications services, the utility would also be counted as an attaching entity for the purposes of allocating the costs of unusable space under Section 224(e). The Commission also tentatively concluded that an ILEC with attachments on a pole should be counted for the purposes of

apportionment of the costs of unusable space. The Commission sought comment on how these two definitions impact its tentative conclusion. The Commission noted that the definition of telecommunications carrier under Section 224 excludes ILECs, and a pole attachment is defined as any attachment by a cable television system or a provider of telecommunications service.

49. American Electric, et al., oppose counting an ILEC with attachments on the pole because the definition of a telecommunications carrier excludes ILECs and the definition of pole attachments specifically includes only attachments made by telecommunications carriers or cable operators. Inclusion of ILECs in the apportionment of costs of unusable space, they conclude, would improperly extend the scope of Section 224 and contradict Congressional intent. We disagree. The exclusion in Section 224(a)(5) of ILECs from the term telecommunications carrier is directed to the purpose of amended Section 224, to provide an important means of access. ILECs generally possess that access and Congress apparently determined that they do not need the benefits of Section 224. The fundamental precept of the 1996 Act was to enhance competition, and the amendments to Section 224, like many of the amendments to the 1996 Act, are directed to new entrants. In contrast, Section 224(e), which delineates a new means to allocate costs, does not refer to "telecommunications carriers," but to "attaching entities." Moreover, the term pole attachment is defined in terms of attachments by a "provider of telecommunications service" not as an attachment by a "telecommunications carrier." The Conference Report confirms that Congress concluded that the unusable space "is of equal benefit to all entities attaching to the pole" and intended that the associated costs be apportioned "equally among all such attachments." We thus think the statute draws a clear distinction between those entities that may invoke Section 224 and those entities that count for purposes of allocating the costs of unusable space.

50. We affirm our tentative conclusion that any pole owner providing telecommunications services, including an ILEC, should be counted as an attaching entity for the purposes of allocating the costs of unusable space under Section 224(e)(2). This includes pole owners that use only a part of their physical plant capacity to provide these services and is consistent with our recognition that pole attachments are defined in terms of attachments by a "provider of telecommunication service." Section 224(e)(2) states that the costs of unusable space shall be allocated on the basis of "all attaching entities." There is no indication from the statutory language or legislative history that any particular attaching entity should not be counted.

51. We also believe this conclusion is supported by Section 224(g) which requires

that a utility providing telecommunications services impute to its costs of providing service an amount equal to the rate for which it would be liable under Section 224. This section reflects Congress' recognition that as a provider of telecommunications services, a pole owner uses and benefits from the unusable space in the same way as the other attaching entities. Section 224(g) also directs the utility to impute the costs relating to these services to the appropriate affiliate, making clear that another entity is using the facility and should be counted as an attaching entity. We will count any pole owner providing telecommunications services, including an ILEC, as an attaching entity for the purpose of allocating costs of unusable space.

(3) Government Attachments

52. The Notice proposed that government entities with attachments, like other entities present on the utility pole, be counted as entities on the pole for purposes of allocating the costs of unusable space. A utility may be required under its franchise or statutory authorization to provide certain attachments for public use, such as traffic signals, festoon lighting, and specific pedestrian lighting. Often the responsible government agency does not directly pay for the attachment. The Commission proposed that, since the government agency is using space on the pole, its attachments be counted for purposes of allocating the cost of unusable space. This cost would be borne by the pole owner, since it relates to a responsibility under its franchise or statutory authorization.

53. Some cable operators and telecommunications carriers agree with our proposal to count as a separate attaching entity government agencies that have attachments to the pole. Utility pole owners and other telecommunications carriers disagree, stating that the utilities would be responsible for a cost that should be shared by all users of the pole because all parties benefit from the existence of the pole as allowed by the government. Since the agencies do not pay fees to the pole owner, the commenters continue, the utility must unfairly absorb the government agency's share of the cost of unusable space, in addition to the one-third share of the cost for which the pole owner is automatically liable. Still other utility pole owners disagree, asserting that government attachments are not wire attachments, do not provide telecommunications or cable services and are not included in the definition of "pole attachment." In defending its recommendation not to count government attachments, ICG Communications adds that government attachments are normally installed in the pole's unusable space so as to avoid interference with other parties' use of the pole space.

54. To the extent that government agencies provide cable or telecommunications service, we

affirm our proposal that they be included in the count of attaching entities for purposes of allocating the cost of unusable space. We will not include government agencies in the count as a separate entity if they only provide certain attachments for public use, such as traffic signals, festoon lighting, and specific pedestrian lighting. We conclude that, where a government agency's attachment is used to provide cable or telecommunications service, the government attachment can accurately be described as a "pole attachment" within the meaning of Section 224(a)(4) of the 1996 Act. Like a private pole attachment, it benefits equally from the unusable space on the pole and the costs for this benefit are properly placed on the government entity or the pole owner. Since the government attacher and the pole owner have a relationship that benefits both parties, we are not persuaded that the pole owner is unfairly absorbing the cost of the government's telecommunications attachments to the extent the pole owner's franchise so provides. We will not include a government agency with an attachment that does not provide cable or telecommunications service as an entity in the count when apportioning the costs of unusable space because such an attachment is not a "pole attachment" within the meaning of Section 224(a)(4).

(4) Space Occupied on Pole

55. The Notice sought information on alternative methodologies to apportion costs of unusable space, such as by allocating to each entity a proportion of the unusable space equal to the proportion of usable space occupied by the entity's attachment. Specifically, the Commission sought comment on an alternate approach that counts any telecommunications carrier as a separate attaching entity for each foot, or partial increment of a foot, it occupies on the pole. The Commission also asked whether such a methodology is consistent with the statutory requirement in Section 224(e)(2) for equal apportionment among all attaching entities.

56. Based on the record, we reject this alternate proposal. U S West, in opposing the alternate method, argues that if Congress had intended to allocate the costs of unusable space based on space occupied, it would not have distinguished between usable and unusable space. RCN supports the alternative method because, it argues, not all attaching entities benefit to the same degree from the unusable space and those using more space should be allocated more of the costs of unusable space. Similarly, SBC argues that we should consider the amount of space occupied when allocating the costs of unusable space because an attaching entity that occupies two spaces on the pole should be allocated twice as much costs as an attaching entity that only occupies one space.

57. In suggesting the alternative approach that entities using more than one foot

be counted as a separate entity for each foot or increment thereof, we sought to ensure that entities be allocated the costs of the unusable space through a means reflecting their relative use. The record does not indicate whether use of more than one foot by an entity will be a pervasive or occasional circumstance. We agree with those parties that state that allocating space in such a manner will add a level of complexity, and not necessarily produce a fairer allocation of the cost of unusable space. We are also convinced that the alternative proposal is inconsistent with the plain meaning of Section 224(e) which apportions the cost of unusable space "under an equal apportionment of such costs among all attaching entities."

58. As another alternative method to apportioning cost equally, MCI argues that the apportionment of two-thirds of the costs of unusable space should be based on the number of attachments rather than the number of attaching entities. Allocating costs by the number of entities, it argues, would not allocate any unusable space to overlashings and will result in an incentive for "speculative" overlashing by existing attachers. We also will not adopt MCI's proposal to count attachments instead of attaching entities. The record does not demonstrate that overlashing leads to distortion of the allocation of the costs of the pole.

c. Overlashing

(1) Background

59. Overlashing, whereby a service provider physically ties its wiring to other wiring already secured to the pole, is routinely used to accommodate additional strands of fiber or coaxial cable on existing pole attachments. The Commission sought information in the Notice on how each attaching and overlashing entity should be treated for purposes of allocating the costs of unusable and usable space. We observed that each possible "host attachment" may be overlashed with wiring providing other types of services or owned by other types of providers. The Commission also requested that commenters discuss whether and to what extent overlashing facilitates the provision of services other than cable service by cable operators.

60. In addressing overlashing in the cable operator context, the Commission issued a public notice in January 1995 (the "Overlashing Public Notice") cautioning owners of utility poles against restricting cable operators from overlashing their own pole attachments with fiber optic cable. The Commission noted the serious anti-competitive effects of preventing cable operators from adding fiber to their systems by overlashing. The Commission believed improper constraints were being placed on

cable systems that sought to overlash fiber optic lines to their existing coaxial cable lines in order to build out their facilities. While recognizing concerns regarding engineering specifications and arranging for access and notification in cases of emergencies or modification, the Commission affirmed its commitment to ensure that the growth and development of cable system facilities are not hindered by an unreasonable denial of overlashing by a utility pole owner. Overlashing capability continues to be a facet of a pro-competitive market because it maximizes the usable capacity on a pole.

(2) Discussion

(a) Overlashing One's Own Pole Attachment

61. The 1996 Act ushered in an era of transition from regulation to competition in telecommunications markets. The 1996 Act is grounded in the belief that competition will bring the greatest benefits to consumers and the greatest diversity of telecommunications services to communities. These broad aims include those expressed in Section 1 of the Communications Act, to "make available . . . to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide . . . communication service," and those expressed in the 1996 Act, to establish a "pro-competitive, de-regulatory national policy framework designed to accelerate private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition." To implement this framework, the 1996 Act made numerous amendments to the Communications Act, including the expansion of Section 224 jurisdiction to pole attachments for telecommunications carriers and expanded access to utility poles for the purposes of providing cable and telecommunications services. As the Commission has made clear, determining whether actions enhance competition requires examining those actions in light of the significant changes to the laws governing the provision of telecommunications services made by the 1996 Act.

62. We believe overlashing is important to implementing the 1996 Act as it facilitates and expedites installing infrastructure essential to providing cable and telecommunications services to American communities. Overlashing promotes competition by accommodating additional telecommunications providers and minimizes installing and financing infrastructure facilities. We think that overlashing is an important element in promoting the policies of Sections 224 and 257 to provide diversity of services over existing facilities, fostering the availability of telecommunications services to communities, and increasing opportunities for competition in the marketplace.

63. Utility pole owners oppose overlashing as an expansion of their obligation to provide for pole attachments and, further, as an unsupervised burden on the poles. Cable operators and

telecommunications carriers assert that overlashing is a routine construction practice that has gone on for decades without interference from the pole owners until the utilities began entering competitive businesses. Some telecommunications carriers urge the Commission to bar utility pole owners from prohibiting overlashing.

64. We have been presented with no persuasive reason to change the Commission's policy that encourages overlashing, and we agree with representatives of the cable and telecommunications industries that, to the extent that it does not significantly increase the burden on the pole, overlashing one's own pole attachment should be permitted without additional charge. To the extent that the overlashing does create an additional burden on the pole, any concerns should be satisfied by compliance with generally accepted engineering practices. We note that we have deferred decision on the issue of the effect any increased burden may have on the rate the utility pole owner may charge the host attacher. As stated above, we believe that the Pole Attachment Fee Notice rulemaking is a more appropriate forum for resolution of this issue. As also stated above, we affirm our current presumptions for the time being. We also do not believe that overlashing is an expansion of a pole owners' obligation. Overlashing has been in practice for many years. We believe utility pole owners' concerns are addressed by Section 224's assurance that pole owners receive a just and reasonable rate and that pole attachments may be denied for reasons of safety, reliability, and generally applicable engineering purposes.

(b) Third Party Overlashing

65. Telecommunications carriers seeking expeditious means to gain access to poles have begun contracting with existing attaching entities to overlash to existing attachments. In the Notice, the Commission inquired whether a third party should be permitted to overlash an existing cable system or telecommunications carrier's attachment without the agreement of the pole owner.

66. As stated above, NCTA reports that it is current practice for cable operators routinely to overlash their existing attachments without specific prior notification to the pole owners outside of provisions for major modification contained in their pole attachment agreements. Attaching entities assert that pole owners can exert a veto to market entry if allowed to restrict overlashing of the pole attachment facilities. Utility pole owners object to overlashing by third parties unless the pole owner is compensated for what they view as an additional infringement on their property, but comment that, if third party overlashing is permitted without additional compensation, pole owners should have notice of the nature and engineering requirements of the overlasher.

67. Utility pole owners assert that overlashed attachments must occupy the same amount of space as the initial attachment, be considered a separate attachment, and that the overlasher should be required to pay the same rate as though it were an initial attaching entity. Cable operator and telecommunications carrier interests voice varying opinions on if and how a third party overlasher should be counted as an attaching entity, indicating that cross interests are at stake in facilitating competitive access to the pole, minimizing disruption to existing attachments, and reducing pole attachment fees for the existing attachers.

68. The record does not indicate that third party overlashing adds any more burden to the pole than overlashing one's own pole attachment. We do not believe that third party overlashing disadvantages pole owners in either receiving fair compensation or in being able to ensure the integrity of the pole. Facilitating access to the pole is a tangible demonstration of enhancing competitive opportunities in communications. Allowing third party overlashing will also reduce construction disruption (and the expense associated therewith) which would otherwise likely take place by third parties installing new poles and separate attachments. Accordingly, we will allow third party overlashing subject to the same safety, reliability, and engineering constraints that apply to overlashing one's own pole attachment. Concerns that third party overlashing will increase the burden on the pole can be addressed by compliance with generally accepted engineering practices.

69. We believe that when a host attaching entity allows an overlashing attachment to be installed to its own pole attachment by a third party for the purposes of that third party offering and providing cable or telecommunications services to the public, that third party overlashing entity should be classified as a separate attaching entity for purposes of allocating costs of unusable and usable space because Congress indicated that the unusable space was of equal benefit to all attaching entities. In order to implement the allocation of unusable space, the third party overlasher will necessarily need to have some understanding or agreement with the pole owner, and an agreement with the host attaching entity. Commenters assert that overlashing under these circumstances should be classified as a separate attachment. We agree.

(c) Lease and Use of Excess Capacity/Dark Fiber

70. Recent technological advances have made it possible for excess capacity within a fiber optic cable, known as "dark fiber," to be leased from an attaching entity by a third party. Dark fiber consists of the bare capacity and does not involve any of the electronics necessary to transmit or receive

signals over that capacity. It thus differs from dim or lit fiber by which the carrier provides some or all of the electronics necessary to power the fiber. The Commission requested comment on whether a third party using dark fiber should be counted as a separate pole attaching entity for purposes of establishing the number of attaching entities on a pole among whom to apportion the costs of unusable space.

71. SBC asserts that the Commission should not address the issue of dark fiber because it is the subject of a remand from the U. S. Court of Appeals for the D.C. Circuit. In Southwestern Bell, LECs challenged a series of Commission orders finding that the LECs were offering dark fiber on a common carrier basis and prescribing tariffed rates for the service. The petitioners claimed that the Commission exceeded its jurisdiction because they had offered dark fiber only on an individualized basis, thereby placing this service beyond the Commission's authority over common carrier offerings under Title II of the Communications Act.

72. We believe that our jurisdiction to consider the leasing and use of dark fiber to the extent it is used to provide telecommunications services is consistent with the court's holding in Southwestern Bell. The court concluded that the Communications Act delegates broad authority to the Commission to regulate constantly evolving communications facilities that have transcended in complexity and power far beyond the specific technologies known to its drafters in 1934. Section 224 gives the Commission the mandate and the jurisdiction to regulate pole attachment rates for facilities over which cable television or telecommunications services are provided, and therefore our consideration of dark fiber in this context is appropriate for this proceeding.

73. There is general consensus among cable operators and telecommunications carriers that the leasing and use of dark fiber by third parties places no additional spatial or physical requirements on the utility pole. Cable operators, telecommunications carriers, and utility pole owners all contend that the use of dark fiber is a pro-competitive, environmentally sound and economical use of existing facilities. We agree and conclude that the leasing of dark fiber by a third party is not an individual pole attachment separate from the host attachment. Such use will not require payment to the pole owner separate from the payment by the host attaching entity. We also agree with cable operators, telecommunications carriers, and utility pole owners that, if an attachment previously used for providing solely cable services would, as a result of the leasing of dark fiber, also be used for providing telecommunications services, the rate for the attachment would be determined under Section 224(e), consistent with our discussion regarding restrictions on services provided over pole

attachments.

d. Presumptive Average Number of Attaching Entities

74. The Commission presently uses rebuttable presumptions in the context of establishing reasonable pole attachment rates. These presumptions help to reduce reporting requirements and record-keeping, and are more efficient so there is less administrative burden on all parties. The use of presumptions provides a level of predictability and efficiency in calculating the appropriate rate. Fairness is preserved because the presumptions may be overcome through contrary evidence. We seek to maintain predictability, efficiency and fairness in determining the costs of unusable space on a pole. In the Notice, the Commission stated that a pole-by-pole inventory of the number of entities on each pole would be too costly. The Commission proposed that each utility develop, through the information it possesses, a presumptive average number of attachers on one of its poles. The Commission also proposed that telecommunications carriers be provided the methodology and information underlying a utility's presumption. The Notice sought comment on this proposal and on whether any parameters should be established in developing the presumptive average. The Notice also sought comment on whether a utility should develop averages for areas that share similar characteristics relating to pole attachments and whether different presumptions should exist for urban, suburban, and rural areas. The Notice sought comment on the criteria to develop and evaluate any presumption.

75. The Commission asked whether, as an alternative to pole-by-pole inventory by the facility owners, the Commission should determine the average number of attachments. The Commission inquired as to whether it should initiate a survey to develop a rebuttable presumption regarding the number of attachments. The Commission also sought comment on the difficulties of administering a survey, any additional data required, and parameters of accuracy and reliability required for fair rate determination.

76. Generally, commenters agree with the idea that a presumptive average number of attachers should be developed, but disagree on how this should be accomplished. The utilities generally support developing their own average as the most efficient method. Several attaching entities support the Commission's development of the presumptive average and encourage the establishment of a rebuttable presumption of at least three attachers. Comcast, et al., in particular, encourages a presumptive average of six attaching entities as supported by the Commission's Fiber Deployment Update End of Year 1996 ("Fiber Deployment Update"). U S West indicates that having the Commission develop the presumptive average will serve efficiency, minimize complaints, and place the burden of

rebuttal on the pole owner.

77. We believe that the most efficient and expeditious manner to calculate a presumptive number of attaching entities is for each utility to develop its own presumptive average number of attaching entities. Utilities not only possess this information but have familiarity and expertise to structure it properly. Based on the record, we think the alternative of the Commission undertaking a survey is too cumbersome and would not necessarily enhance accuracy. We do not believe that the Fiber Deployment Update is an appropriate resource from which to develop the presumptive average. The Fiber Deployment Update presents data about fiber optic facilities and capacity built or used by interexchange carriers, Bell operating companies, and other LECs and competitive access providers. These data are inadequate for the purposes of creating a presumptive average number of attaching entities because it does not include data pertaining to cable operators. Our decision providing that the utility will establish a presumptive number of attaching entities is also premised on the information developed reflecting where the service is being provided, instead of a broad national average. We think there will be a range of presumptive averages depending on rural, urban, or urbanized areas. To ensure that rates are appropriately representative, each utility shall determine a presumptive average for its rural, urban, and urbanized service areas as defined by the United States Census Bureau.

78. We will require each utility to develop, through the information it possesses, a presumptive average number of attaching entities on its poles based on location (urban, rural, urbanized) and based upon our discussion herein regarding the counting of attaching entities for allocating the costs of unusable space. A utility shall, upon request, provide all attaching entities and all entities seeking access the methodology and information by which a utility's presumption was determined. We expect a good faith effort by a utility in establishing its presumption and updating it when a change is necessitated. For example, when a new attaching entity has a substantial impact on the number of attaching entities, the utility's presumptive average should be modified. This method should be consistent with present practice, as we understand most pole attachment agreements "provide for periodic field surveys, generally once every three to seven years, to determine which entities have attached what facilities to whose poles."

79. Challenges to the presumptive average number of attaching entities by the telecommunications carrier or cable operator may be made in the same manner as challenges presently are undertaken. The challenging party will initially be required to identify and calculate the number of attachments on the poles and submit to the utility what it believes to be an appropriate average. Where the number of poles is large, and complete inspection impractical, a statistically sound

survey should be submitted. The pole owner will be afforded an opportunity to justify the presumption. Where a presumption is successfully challenged, the resulting figure will be deemed to be the number of attaching entities.

5. Allocating the Cost of Usable Space

a. Background

80. Section 224(e)(3) provides that a utility shall apportion the cost of providing usable space among all entities according to the percentage of usable space required for each entity. The Commission has defined usable space as the space on the utility pole above the minimum grade level that is usable for the attachment of wires, cable, and related equipment. In the Second Report and Order, the Commission considered comment regarding the amount of usable space for various size poles in different service areas. The Commission subsequently adopted a rebuttable presumption that a pole contains 13.5 feet of usable space. The usable space presumption has been contested in complaint proceedings before the Commission. In 1986, the Commission revisited the usable space issue and upheld the presumption. In 1997, the Commission sought comment on the presumptive amount of usable space in the Pole Attachment Fee Notice. In the Notice, we sought comment on the usable space presumption to establish a full record for attachments made by telecommunications carriers under the 1996 Act. The Commission also proposed to modify the current methodology to reflect only the cost associated with usable space to arrive at a factor for apportioning the costs of usable space for telecommunications carriers under Section 224(e)(3). For allocating the costs of usable space to telecommunications carriers, the following basic formula was proposed:

Usable Space = Space Occupied by Attachment / Total Usable Space × Pole Height × Bare Pole × Net Cost of Carrying Charge Rate Factor

81. In the Notice, the Commission sought comment on the amount of usable space occupied by telecommunications carriers and on whether the presumptive one foot used for cable attachments should be applicable to telecommunications carriers generally. Currently, each attaching entity is presumed to use a specific amount of space, and costs are allocated on the proportion of this space to the overall costs of the usable space. 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. The Commission found this result to be consistent with the legislative history of Section 224, as expressed in the 1977 Senate Report.

82. Determining the presumptive amount of usable space attributable to each attacher directly impacts the allocation of costs. Section 224(d)(1), which predates the 1996 Act, specifies that the maximum just and reasonable pole rate shall be determined by multiplying the percentage of the total usable space that is occupied by the pole attachment by the sum of the operating expenses and actual capital costs attributable to the entire pole. Each factor is individually determinable, and in some cases has been assigned a presumptive average value for purposes of resolving complaints in an expeditious manner. The current pole attachment rate methodology consists of a usable space factor that is the result of dividing the space occupied on the pole, or the presumptive one foot assigned to a cable attachment, by 13.5 feet or the total amount of usable space.

b. Discussion

(1) Applying the 13.5 Foot Presumption and the One Foot Presumption to Telecommunications Carriers

83. The law provides a method for the allocation of costs associated with the usable space. We believe that the information we received in this proceeding regarding calculation of usable space is more appropriately addressed in the Pole Attachment Fee Notice proceeding and we will thus reserve our decision on the total amount of usable space issue until the resolution of that proceeding. For the present time, the presumption that a pole contains 13.5 feet of usable space will remain applicable. We adopt our proposed methodology to apportion the cost of the usable space. We believe this formula most accurately determines the apportionment of the cost of usable space. As mandated by Congress, it incorporates the principle of apportioning the cost of such space according to the percentage of space required for each entity.

84. The Commission's one foot presumption has been in place since 1979. The Commission initially assigned the one foot presumption to cable television operators based on congressional intent, as expressed in the legislative history of Section 224, that cable television was to be assigned only one foot of space, the electric utilities' use of safety space, and an analysis of replacement costs that utilities impose on cable television companies. The Commission concluded in the Usable Space Order that

several years of experience in regulating pole attachments had not indicated that cable attachments occupy more space than the one foot of usable space as originally contemplated by Congress. Neither the 1996 Act's amendments to Section 224 nor the record in this proceeding suggest that a different presumption should be applicable to telecommunications carriers. Circumstances that are unique or that clearly warrant a departure from the formula may be used to rebut the presumption. We affirm our practice of assigning a presumptive one foot of usable space and find that the presumptive one foot used for cable attachments should be applied to attachments by telecommunications carriers generally. We believe that the one foot presumption remains reasonable and continues to provide an expeditious and equitable method for determining reasonable rates.

85. Some utility pole owners and telecommunications carriers suggest changes to the one foot presumption and express other concerns. Some electric utilities have sought to alter the presumptive amount of usable space allocated when fiber optic cable is involved. For example, Duquesne Light and Ohio Edison contend that, in their service areas, tightly pulled fiber optics will be at the same height at the mid span of the pole as a cable television attachment above it that is hung with the normal required sag. They argue that this is in violation of the NESC code which requires parallel attachments to be separated by appropriate distances between the spans of the poles as well as on the poles themselves. Duquesne Light and Ohio Edison further maintain that, because the tensioned fiber optic cable cannot be easily sagged except by cutting and rerunning the cable, the fiber optic cable must be relocated higher on the pole. They recommend that the Commission adopt a rebuttable presumption that fiber optic cable requires, and should be charged for, two feet of usable space to account for the communications companies' practice of pulling fiber optic cables tightly.

86. The impact of deploying fiber optic cable is dependent upon how the fiber is attached. The rebuttable nature of the one foot presumption offers an opportunity for the presentation of information in situations outside of the norm. The record does not contain sufficient information to base a decision on the impact of the practice of pulling fiber optics cable tightly, and therefore we will not presume that fiber optics require two feet of usable space.

87. We disagree with ICG Communications' position that the Commission's one foot presumption is outdated and should be abandoned. ICG Communications maintains that most communications attachments should only be allocated six inches of usable space. ICG Communications notes that the NESC does not distinguish between cable used for cable operators and cable used for telecommunications carriers. Based on accepted engineering and governmentally-required standards,

it advocates six inches of usable space for simple communications attachments below the safety space.
ICG Communications notes that where communications lines have been installed in electric supply space,
especially fiber optic cables, more than one foot of usable space is required and an allocation of 16 inches
of usable space should be made.

88. Bell Atlantic contends that there is no factual support for ICG Communications' claims.
Bell Atlantic points to Bellcore's Manual of Construction procedures as demonstrating that clearance at
the pole between communications cables supported on different strands of suspension must be at least 12
inches. SBC maintains that ICG Communications' proposals are based on improper assumptions,
especially regarding overlashing. SBC maintains that the one foot presumption is still valid today.
We agree that ICG Communications has not adequately supported its suggested allocation of six inches
of space for most communications attachments or 16 inches for fiber optic cables.

89. Adelphia, et al., express concern regarding the validity of assigning the cost of a vertical
one-foot of pole space to cable systems and/or other telecommunications providers without considering
the horizontal uses of the pole by the pole owner. Adelphia, et al., also suggest that the particular side
of the pole on which the attachment is located is of significance. RCN observes that the one foot
presumption should not apply where extension arms or boxing is used by the attaching entity to install
its facilities. RCN suggests that where extension
arms are used, the communications cable is located not on the pole itself, but farther out on the extension
arm. RCN states that this will lead to a situation where an entity's physical attachment may occupy as
little as six inches of usable space. RCN claims that this configuration will still satisfy the 12-inch
clearance required between communications attachments, if the cable is positioned a certain distance along
the extension.

90. Sufficient record has not been presented to change our presumption as a general matter,
although parties are free to challenge the presumption on a case-by-case basis. In striking the proper
balance, we must weigh any of the suggested modifications against the advantages of procedures and
calculations remaining simple and expeditious. We agree with GTE that changing the usable space
presumption would add another layer of complexity to the pole attachment rate formula. As GTE
suggests, surveys of the actual space occupied by each attacher would be necessary.

91. We agree with those commenters who have found the presumptive one foot applicable.
We further affirm our decision to continue using the current methodology, modified to reflect only costs
associated with usable space. Commenters have not persuaded us that the rationale

originally used in assigning the one foot of space to cable television operators should not be equally applicable to telecommunications carriers generally. We continue to see the need and basis for the one foot presumption due to the impracticality of developing sufficient information applicable to all situations. Where use of the one foot presumption would not encourage just and reasonable rates, any party may rebut the presumption.

(2) Overlashing and Dark Fiber

92. Consistent with our above discussion regarding overlashing, we find that the one foot presumption shall continue to apply where an attaching entity has overlashed its own pole attachments. We also determine that facilities overlashed by third parties onto existing pole attachments are presumed to share the presumptive one foot of usable space of the host attachment. To the extent that the overlashing creates an additional burden on the pole, any concerns should be satisfied by compliance with generally accepted engineering practices. We again note that we have deferred decision to the Pole Attachment Fee Notice proceeding on the issue of the effect any increased burden may have on the rate the utility pole owner may charge the host attacher. As stated above, we believe that that proceeding is a more appropriate forum for resolution of this issue. As also stated above, we affirm our current presumptions for the time being.

93. Some commenters have suggested that the third party overlasher should be responsible for some portion of the costs associated with overlashing and be responsible for paying a portion of the costs to the pole owner. Carolina Power, et al., argue that because the third party has a statutory right under Section 224(f) to make a separate attachment of its own, overlashing should be left to negotiation. They maintain that the Commission should recognize that each overlashed wire equals a separate attachment for which the overlasher may be charged a just and reasonable rate. KMC Telecom asserts that the allocation of usable space should be one-half to the original attacher and the remaining one-half to the third party overlasher. ICG Communications advocates the allocation of four and one-half inches of usable space to each party when one party overlashes another's cable. MCI recommends sharing the presumptive one foot of space assigned to cable operators' and telecommunications carriers' pole attachments with overlashers. MCI argues that because overlashing expands usable space, there should be a presumptive number of two overlashings per original attachment as an estimate of the number of overlashings. MCI asks the Commission to further presume that there will be four attachments: one for a cable operator; one for the ILEC; one for an independent competitive

LEC; and one for a LEC affiliated with the incumbent electric company. It alleges that if there are four non-electric attachments, and two overlashings per original attachment, the same 6.5 feet of space can presumptively accommodate 12 attachments. Ohio Edison and Union Electric argue that there is no rational basis for adopting such an approach under Section 224(e)(3) because the utility pole owner is entitled to charge the attaching entity for one foot of usable space regardless of whether the original attachment is overlashed.

94. We disagree with these comments suggesting that the Commission must establish the rate and the allocation of cost between the third party overlasher and the host for the use of one foot of usable space. The benefit of third party overlashing as an expeditious means for providers, including new entrants, to gain access to poles would be undermined by such procedures. Unlike the pole owner, the host attaching party generally will not have market power vis-a-vis the overlasher since the overlasher has a statutory right to make an independent attachment. Accordingly, we conclude that it is reasonable to allow the host attaching entity to negotiate the sharing of costs of usable space with third party overlashers. In such circumstances the host attaching entity will remain responsible to the pole owner for the use of the one foot of usable space but may collect a negotiated share from the third party overlasher. We have already addressed the counting of third party overlashers as a separate entity and established that if such third party provides cable or telecommunications service it will be required to pay its share of the costs of the unusable space. Further, we find that the record in this proceeding is not sufficient to embrace MCI's proposal. While overlashing is frequent, we cannot determine from the record that it is as prevalent as MCI proposes. We are reluctant to conclude that its presumptions are generally applicable. No other party has advocated a similar proposal. Moreover, we see no need to adopt MCI's proposal given our determination that there is no need to regulate the sharing of costs between the host attaching entity and the overlashing entity.

95. Regarding the leasing of dark fiber, to the extent that dark fiber is used to provide a telecommunications service within an existing attachment generally, the majority of commenters do not believe that such activity constitutes a separate attachment under Section 224. As stated above in Section IV.A.4.c., we agree. The one foot presumption is therefore only applicable to the host attacher.

B. Application of Pole Attachment Formula to Telecommunications Carriers

1. Background

96. To implement the 1978 Pole Attachment Act, the Commission developed a methodology and implementing formula to determine a presumptive maximum pole attachment rate. The Commission regulates pole attachment rates by applying this formula ("Cable Formula") to disputes between cable operators and utilities. The Cable Formula is based on Section 224(d)(1) that stipulates 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.

Currently, application of the Cable Formula results in a rate that is in the range between the incremental and fully allocated costs of providing pole attachment space.

97. Section 703(6) of the 1996 Act amended Section 224 by adding a new subsection (d)(3). This amendment expanded the scope of Section 224 by applying the Cable Formula to telecommunications carriers in addition to cable systems until a separate methodology is established for telecommunications carriers. We invited further comment on this issue in the Notice.

98. Congress directed the Commission to issue a new pole attachment formula under Section 224(e) relating to telecommunications carriers within two years of the effective date of the 1996 Act, to become effective five years after enactment. In the 1996 Act, Section 224(e)(1) provided:

> The Commission shall . . . prescribe regulations in accordance with this subsection to govern charges for pole attachments used by telecommunication carriers to provide telecommunications services, when the parties fail to resolve a dispute over such charges. Such regulations shall ensure that a utility charges just, reasonable, and nondiscriminatory rates for pole attachments.

99. In the Notice, the Commission proposed to modify the Cable Formula to accommodate the two statutory components added by the 1996 Act and to develop a maximum pole attachment rate for telecommunications carriers. These components dictate separate calculations for the equal apportionment of unusable space and the allocation of a percentage of usable space.

100. In paragraphs 41 and 78 above, the Commission affirms its proposals to use certain formulas implementing Section 224(e)(2) and Section 224(e)(3) respectively. The formula for Section

224(e)(2) establishes the unusable space factors for telecommunications carriers, premised on an equal apportionment of two-thirds of the costs of providing unusable space on the utility facility. The formula for Section 224(e)(3) establishes the usable space factors for cable operators and telecommunications carriers providing telecommunications services, premised on the percentage of usable space required for the attachment on the utility facility.

101. AT&T observes that there was almost unanimous support from cable operators and telecommunications carriers for the Commission's proposed telecommunications carrier pole attachment rate formula. Several utility pole owners support the Commission's use of its proposed modified formula, but advocate the use of gross book instead of net book costs. American Electric, et al., advocate that when applied the formula should use forward-looking/replacement costs. Attaching entities urge the Commission to reject the pole owners' call for replacement costs designed to maximize pole attachment rates.

2. Discussion

102. We agree with cable operators and telecommunications carriers that the continued use of a clear formula for the Commission's rate determination is an essential element when parties negotiate for pole attachment rates, terms and conditions. We think that a formula encompassing these statutory directives of how pole owners should be compensated adds certainty and clarity to negotiations as well as assists the Commission when it addresses complaints. We conclude that the addition of the unusable and usable space factors, developed to implement Sections 224(e)(2) and (e)(3), is consistent with a just, reasonable, and nondiscriminatory pole attachment rate for telecommunications carriers. We affirm the following formula, to be used to determine the maximum just and reasonable pole attachment rate for telecommunications carriers, including cable operators providing telecommunications services, effective February 8, 2001, encompassing the elements enumerated in the law:

$$\text{Maximum Rate} = \text{Unusable Space Factor} + \text{Usable Space Factor}$$

C. Application of Pole Attachment Formula to Conduits

1. Background

103. Conduit systems are structures that provide physical protection for cables and also allow new cables to be added inexpensively along a route, over a long period of time, without having to dig up the streets each time a new cable is placed. Conduit systems are usually multiple-duct structures with standardized duct diameters. The duct diameter is the principal factor for determining the maximum number of cables that can be placed in a duct. Conduit is included in the definition of pole attachments, therefore, the maximum rate for a pole attachment in a conduit for telecommunications carriers must be established through separate allocations relating to unusable space and usable space. In the Notice, the Commission sought comment on the differences between conduit owned and/or used by cable operators and telecommunications carriers and conduit owned and/or used by electric or other utilities to determine if there are inherent differences in the safety aspects or limitations between the two which should affect the rate for these facilities as discussed below. The Commission sought comment on the distribution of usable and unusable space within the conduit or duct and how the determination for this space is made. Where conduit is shared, we sought information on the mechanism for establishing a just and reasonable rate.

104. Section 224(e)(2) requires that two-thirds of the cost of the unusable space be apportioned equally among all attaching entities. In the Notice, the Commission proposed a methodology to apportion the costs of unusable space among attaching entities. The following formula was proposed as the methodology to determine costs of unusable space in a conduit:

$$\text{Conduit Unusable Space Factor} = \frac{2}{3} \times \frac{\text{Net Linear Cost of Unusable Conduit Space}}{\text{Number of Attachers}} \times$$

Carrying
Charge Rate

In the Notice, the Commission also sought comment on what portions of duct or conduit are "unusable" within the terms of the 1996 Act. The Commission proposed that a presumptive ratio of usable ducts to maintenance ducts be adopted to establish the amount of unusable space.

105. Section 224(e)(3) states that the cost of providing usable space shall be apportioned according to the percentage of usable space required for the entity using the conduit. Usable space is based on the number of ducts and the diameter of the ducts contained in a conduit. In the Pole Attachment Fee Notice, the Commission sought comment on a proposed conduit methodology for use in determining a pole attachment rate for conduit under Section 224(d)(3). In the Notice, the Commission sought comment on a proposed half-duct methodology for use in a proposed formula to determine a conduit usable space factor. The proposed usable space formula under Section 224(e)(3) for pole attachments in conduits is as follows:

Condui t
Usable
Space
Factor

=
1
2

X
1 Duct
Average Number of
Ducts, less Adjustments
for maintenance ducts

X
Net Linear Cost of
Usable Conduit
Space

X
Carrying
Charge
Rate

In the Notice, the Commission sought comment on the half-duct presumption's applicability to determine usable space and to allocate costs of providing usable space to the telecommunications carrier. The

Commission also sought comment on how its proposed conduit methodology impacts determining an appropriate ratio of usable to unusable space within a duct or conduit.

106. As with poles, defining what an attaching entity is and establishing how to calculate the number of attaching entities in conduit is critical. Consistent with the half-duct convention proposed in the Pole Attachment Fee Notice, the Commission stated that each entity using one half-duct should be counted as a separate attaching entity. The Commission sought comment on this method of counting attaching entities for the purpose of allocating the cost of the unusable space consistent with Section 224(e). The Commission also sought comment on the use an attaching entity may make of its assigned space, including allowing others to use its dark fiber in the conduit.

2. Discussion

a. Counting Attaching Entities for Purposes of Allocating Cost of Other than Usable Space

107. For the purpose of allocating the cost of unusable space, ICG Communications states that each party that actually installs one or more wires in a duct or duct bank should be counted as a single attaching entity, regardless of the number of cables installed or the amount of duct space occupied. Section 224(e)(2) states that the costs of unusable space shall be allocated ". . . under an equal apportionment of such costs among all attaching entities." We agree that each party that actually installs one or more wires in a duct or duct bank should be counted as a single attaching entity, regardless of the number of cables installed or the amount of duct space occupied. The statutory preference for clarity is preeminent and we perceive no generally applicable method that does not involve complexity and confusion other than counting each entity within the conduit system as a separate attaching entity.

b. Unusable Space in a Conduit System

108. Carolina Power, et al., assert that the only usable space is the duct itself, because the surrounding structure and supportive infrastructure of the duct is the unusable space. To allocate the cost of the unusable space, they argue that two-thirds of the costs involved in constructing a conduit system should be apportioned among attaching entities. These utility conduit owners reason that the structure surrounding a conduit system exists to make other parts of the system usable in the same way that unusable portions of a pole exist to make other parts of the pole usable.

109. USTA argues that although unusable conduit space differs from unusable pole space in the way it is created, it is possible to allocate the costs of unusable space. According to USTA, space

in a conduit is unusable because it either is reserved for maintenance or has deteriorated. The record demonstrates that in some conduit systems not all of the ducts are used; one duct may simply be unoccupied or another may be reserved for maintenance. We conclude that if a maintenance duct is reserved for the benefit of all conduit occupants, such reservation renders that duct unusable and the costs of that space should be allocated to those who benefit from it. To the degree space in a conduit is reserved for a maintenance or emergency circumstances, but not generally used, it should be considered unusable space and its costs allocated appropriately as entities using the conduit benefit by the space.

110. Commenters representive of all industries suggest that no unusable space exists in a conduit system. We disagree. There appear to be two aspects to the unusable space within conduit systems. First, there is that space involved in the construction of the system, without which there would be no usable space. Second, there is that space within the system which may be unusable after the system is constructed. We agree with Carolina Power, et al., that the costs for the construction of the system, which allow the creation of the usable space, should be part of the unusable space allocated among attaching entities. We also agree with USTA to the extent that maintenance ducts reserved for the benefit and use of all attaching entities should be considered unusable.

111. With regard to space in a conduit that is deteriorated, the record is less clear. If a duct has deteriorated beyond usability, USTA believes it should be counted in the unusable space category and therefore included in allocation of costs for unusable space to attachers. We disagree. We are reluctant to require that the costs of space that can not be used by, and provide no benefit to, an existing attaching entity should be allocated beyond the utility conduit owner. In contrast, unusable space on a pole is largely attributed to safety and engineering concerns, adherence to which benefits the pole owner and attaching entities. Space in a conduit that has deteriorated serves no benefit to the existing rate-paying attaching entities. Deteriorated duct creates space that has been rendered unused by the utility. If such space could, with reasonable effort and expense, be made available, the space is usable and not unusable.

c. Half-Duct Presumption for Determining Usable Conduit Space

112. Certain telecommunications carriers support the proposed half-duct methodology for determining a conduit rate for usable space. Bell Atlantic and GTE agree with the simplicity and efficiency of our proposed formula, while SBC supports its applicability to telecommunications carriers as well as cable operators because it is based on "actual figures and presumptions that attempt to

approximate actual figures." GTE estimates that the average conduit consists of four ducts. GTE further indicates that consideration of the variations in duct diameter ". . . would unduly complicate the formula with even more non-public data, resulting in additional pole attachment disputes." SBC states that the half-duct methodology will adjust easily to telecommunications carriers that may use copper facilities that occupy an entire duct.

113. Other telecommunications carriers and some cable operators oppose the use of the half-duct methodology asserting that it creates too large a presumption of usable space, resulting in rates that could result in an unreasonably high pole attachment rate. Sprint, on the other hand, opposes the methodology, indicating that due to the likelihood of damaging existing cables, it does not allow another cable through a duct where there are no inner-ducts. Sprint states that once an attacher uses an empty duct, 100% of the space has been effectively used.

114. Electric utilities oppose the half-duct methodology, stating that electric and communications cable cannot share the same duct due to practical and safety concerns as evidenced by the NESC. Generally, the electric utilities state that safety considerations compel differences between electric utility and other conduit systems. American Electric, et al., indicate that underground conduit is often used by the electric utilities solely to hold conductors that carry high voltage electric current. Further, they state that the difference between electric utility conduit systems and other conduit systems makes it impossible to develop a uniform conduit formula that is equally applicable to electric and telephone utility conduit systems. NCTA replies that utilities have not demonstrated that sharing of conduits between telecommunications carriers and electric utilities poses significant safety risks. Some electric utilities claim that they do not have the information necessary to apply the formula and that the methodology is inappropriate for the pricing of access to electric utility conduit. Specifically, the electric utilities claim that they cannot "readily determine the number of feet of conduit or the number of ducts deployed or available in their system."

115. We adopt our proposed rebuttable presumption that a cable or telecommunications attacher occupies a half-duct of space in order to determine a reasonable conduit attachment rate. We note that the NESC rule relied on by the electric utilities does not prohibit the sharing of space between electric and communications. Rather, the rule conditions the sharing of such space on the maintenance and operation being performed by the utility. We continue to believe that the half-duct methodology is the "simplest and most reasonable approximation of the actual space occupied by an attacher." This

method, patterned after the one used by the Massachusetts Department of Public Utilities ("MDPU"), allows for determining the cost per foot of one duct and then dividing by two instead of actually measuring the duct space occupied. The MDPU finds, and we agree, that this method is reasonable because an attacher's use of a duct does not preclude the use of the other half of the duct so the attacher should not have to pay for the entire duct. In situations where the formula is inappropriate because it has been demonstrated that there are more than two users in the conduit or that one particular attachment occupies the entire duct, so as to preclude another from using the duct, our half-duct presumption can be rebutted. If a new entity is installing an attachment in a previously unoccupied duct, we believe that such entity should be encouraged to place inner-duct prior to placing its wires in the duct.

d. Conduit Pole Attachment Formula

116. We believe that a formula encompassing statutory directives of how utilities should be compensated for the use of conduit adds certainty and clarity to negotiations as well as assists the Commission when it addresses complaints. We conclude that the addition of the conduit unusable and conduit usable space factors, developed to implement Section 224(e)(2) and Section 224(e)(3), is consistent with a just, reasonable, and nondiscriminatory pole attachment rate for telecommunications carriers in conduit. We adopt the following formula to be used to determine the maximum just and reasonable pole attachment rate for telecommunications carriers in a conduit system, effective February 8, 2001, encompasses the elements enumerated in the law:

Maximum Conduit Rate Per Net Linear Foot = Conduit Unusable Space Factor + Conduit Usable Space Factor

D. Rights-of-Way

1. Background

117. The amended Section 224(a)(4) of the Communication Act defines "pole attachment" to include ". . . right-of-way owned or controlled by a utility." The Commission has previously determined that the access and reasonable rate provisions of Section 224 apply where a cable operator or telecommunications carrier seeks to install facilities in a right-of-way but does not intend to make a physical attachment to any pole, duct or conduit. For example, a utility must provide a requesting cable operator or telecommunications carrier with "non-discriminatory access" to any right-of-way owned or controlled by the utility. An electric utility may deny a cable television system or any telecommunications carrier access to its poles, ducts, conduits and rights-of-way, on a non-discriminatory basis, where there is "insufficient capacity and for reasons of safety, reliability and

generally applicable engineering purposes."

118. The Commission's proceedings and cases generally have addressed issues involving physical attachments to poles, ducts, or conduits. The Notice sought information about the frequency at which rights-of-way rate disputes might arise and the range of circumstances that would be involved. We also asked whether we should adopt a methodology and/or formula to determine a just and reasonable rate, or whether rights-of-way complaints should be addressed on a case-by-case basis. If a methodology were recommended, the Commission requested comment on the elements, including any presumptions, that could be used to calculate the costs relating to usable and unusable space in a right-of-way.

119. Generally, cable and telecommunications carriers urge the Commission to establish a set of guiding principles against which rights-of-way pole attachment complaints would be reviewed to minimize the number of disputes to be resolved through the complaint process. Attaching entity interests assert that, without some form of established methodology or formula, the parties to a pole attachment agreement would be without instruction and the attaching entity would be at the mercy of the right-of-way owner.

2. Discussion

120. The record indicates there have been few instances of attachment to a right-of-way that did not include attachment to a pole, duct or conduit. Comments of cable operators, telecommunications carriers and utility pole owners confirm that there are too many different types of rights-of-way, with different kinds of restrictions placed on the various kinds of rights-of-way, to develop a methodology that would assist a utility and potential attacher in their efforts to arrive at just and reasonable compensation for the attachment. Such restrictions may also vary by state and local laws of real property, eminent domain, utility, easements, and from underlying property owner to property owner.

121. This Order, like the statute and the Local Competition Order, sets forth guiding principles to be used in determining what constitutes just, reasonable and nondiscriminatory rates for pole attachments in rights-of-way. The information submitted in this proceeding is not sufficient to enable us to adopt detailed standards that would govern all right-of-way situations. We thus believe it prudent for the Commission to gain experience through case-by-case adjudication to determine whether additional "guiding principles" or presumptions are necessary or appropriate. Therefore, we will address

complaints about just, reasonable, and nondiscriminatory pole attachments to a utility's right-of-way on a case-by-case basis.

V. COST ELEMENTS OF THE FORMULA FOR POLES AND CONDUIT

122. Section 224 ensures a utility pole owner just and reasonable compensation for pole attachments made by telecommunications carriers. When Congress in 1978 directed the Commission to regulate rates for pole attachments used for the provision of cable service, Congress established a zone of reasonableness for such rates, bounded on the lower end by incremental costs and on the upper end by fully allocated costs. In the pole attachment context, incremental costs are those costs that the utility would not have incurred "but for" the pole attachments in question. Fully allocated costs refer to the portion of operating expenses and capital costs that a utility incurs in owning and maintaining poles that are associated with the space occupied by pole attachments. The Commission has noted that, in arriving at an appropriate rate between these two boundaries, it is important to ensure that the attaching entity is not charged twice for the same costs, once as up-front "make-ready" costs and again for the same costs if they are placed in the corresponding pole line capital account that is used to determine the recurring attachment rate.

123. In regulating pole attachment rates, the Commission implemented a cost methodology premised on historical or embedded costs. These are costs that a firm has incurred in the past for providing a good or service and are recorded for accounting purposes as past operating expenses and depreciation. Many parties in this proceeding, as well as in the Pole Attachment Fee Notice proceeding, advocate extension of historical costs, while a number of parties advocate that the Commission adopt a forward-looking economic cost-pricing ("FLEC") methodology for pole attachments. Forward-looking cost methodologies seek to consider the costs that an entity would incur if it were to construct facilities now to provide the good or service at issue.

124. We did not raise the issue of forward looking costs in the Notice in this proceeding. While we do not prejudge the arguments raised by the commenters, we decline to address at this time proposals to shift to a forward looking cost methodology. Accordingly, we will continue the use of historical costs in our pole attachment rate methodology, specifically as it is applied to telecommunications carriers and cable operators providing telecommunications services.

VI. IMPLEMENTATION AND EFFECTIVE DATE OF RULES

125. Section 224(e)(4) states that:

[t]he regulations under paragraph (1) shall become effective 5 years after the date of

enactment of the Telecommunications Act of 1996. Any increase in the rates for pole attachments that result from the adoption of the regulations required by this subsection shall be phased in equal annual increments over a period of 5 years beginning on the effective date of such regulations.

Because the 1996 Act was enacted on February 8, 1996, Section 224(e)(4) requires the Commission to implement the telecommunications carrier rate methodology beginning February 8, 2001.

126. The Commission proposed that the amount of any rate increase should be phased in at the beginning of the five years, with one-fifth of the total rate increase added each year. The Notice sought comment on our proposed five-year phase-in of the telecommunications carrier rate. It also sought comment on any other proposals that would equitably phase in the telecommunications carrier rate within the five years allotted by Section 224(e)(4).

127. Commenters request that the Commission clarify its phase-in requirement by specifying when the first phase-in increase is to begin or when the first annual increment should go into effect. USTA notes an ambiguity regarding the Commission s proposal that the increment be added to the rate in each of the subsequent five years. USTA's concern is that the Commission's proposal gives the impression that the phase in would not occur until after the first full year Section 224(e)(4) applies, or February 8, 2002. MCI requests that the Commission clarify that the five-year phase-in pertains to any rate increase resulting from the absorption of unusable costs by telecommunications carriers. It asks that the Commission affirm that Congress intended only rate increases to be phased in and not rate changes or reductions. New York State Investor Owned Electric Utilities offer a plan to implement the phase-in whereby the billing rate would be calculated by applying 1/5, 2/5, 3/5, and 4/5 of the difference between the current Section 224(d)(3) rate and the new Section 224(e) rate calculated each year and adding that amount to the incremental Section 224(d)(3) rate.

128. SBC further recommends that the Commission provide explicit procedures for this phase-in in order to avoid disputes over interpretation of Section 224(e)(4) s requirement. It recommends that the amount of the increase be calculated based on the data available in the previous year, the year 2000, and that the amount of the increase not be recalculated during the five year phase-in. SBC requests that a full share be added in 2001, even though the carrier rate is not effective until February 8, 2001, and that after the fifth year, for the year 2006, rates be calculated in accordance with the carrier formula, including any changes in data through the end of the five year period.

129. We conclude that the statutory language is explicit in requiring that any

increase in the rates for pole attachments shall be phased-in in equal annual increments over five years beginning on the effective date of such regulations. We clarify that the language beginning on the effective date of such regulations refers to February 8, 2001, or five years after the enactment of the 1996 Act. We find New York State Investor Owned Electric Utilities' plan to implement the phase-in consistent with the Commission s requirement that the increases be phased-in in equal increments over five years, with the goal to have the entire amount of the increase implemented within five years of February 8, 2001.

130. We affirm that the five-year phase-in is to apply to rate increases only and that the amount of the increase or the difference between the Section 224(d) rate and the 224(e) rate shall be applied annually until the full amount of the increase is absorbed within five years of February 8, 2001. Rate reductions are not subject to the phase-in and are to be implemented immediately.

VII. FINAL REGULATORY FLEXIBILITY ACT ANALYSIS

131. As required by the Regulatory Flexibility Act ("RFA"), an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the Notice. The Commission sought written public comment on the proposals in the Notice including comment on the IRFA. The comments received are discussed below. This present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.

1. Need for, and Objectives of, the Order

132. Section 703 of the 1996 Act requires the Commission to prescribe regulations to govern the charges for pole attachments used by telecommunications carriers to provide telecommunications services. The objectives of the rules adopted herein are, consistent with the 1996 Act, to promote competition and the expansion of telecommunications services and to reduce barriers to entry into the telecommunications market by ensuring that charges for pole attachments are just, reasonable and nondiscriminatory.

2. Summary of Significant Issues Raised by Public Comments In Response to the IRFA

133. No comments submitted in response to the Notice were specifically identified by the commenters as being in response to the IRFA contained in the Notice. Small Cable Business Association ("SCBA") filed comments in response to the IRFA contained in the Pole Attachment Fee Notice, and, to the extent they are relevant to the issues in this proceeding, we incorporate them herein by reference. SCBA claims in its IRFA comments that, because of the statutory exclusion of cooperatives from the

definition of utility, Section 224 does not minimize market entry barriers for small cable operators.
According to SCBA, the IRFA in the Pole Attachment Fee Notice fails to consider this issue.

3. Description and Estimate of the Number of Small Entities To Which Rules Will Apply

134. The RFA generally defines a "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term small business concern under the Small Business Act. A "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration ("SBA"). For many of the entities described below, the SBA has defined small business categories through Standard Industrial Classification ("SIC") codes.

a. Utilities

135. Many of the decisions and rules adopted herein may have a significant effect on a substantial number of utility companies. Section 224 defines a "utility" as "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 term does not include any railroad, any person who is cooperatively organized, or any person owned by the Federal Government or any State." The SBA has provided the Commission with a list of utility firms which may be effected by this rulemaking. Based upon the SBA's list, the Commission concludes that all of the following types of utility firms may be affected by the Commission's implementation of Section 224.

(1) Electric Utilities (SIC 4911, 4931 & 4939)

136. Electric Services (SIC 4911). The SBA has developed a definition for small electric utility firms. The Census Bureau reports that a total of 1379 electric utilities were in operation for at least one year at the end of 1992. According to SBA, a small electric utility is an entity whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reports that 447 of the 1379 firms listed had total revenues below five million dollars.

137. Electric and Other Services Combined (SIC 4931). The SBA has classified this entity as a utility whose business is less than 95% electric in combination with some other type of service. The Census Bureau reports that a total of 135 such firms were in operation for at least one year at the end

of 1992. The SBA's definition of a small electric and other services combined utility is a firm whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 45 of the 135 firms listed had total revenues below five million dollars.

138. Combination Utilities, Not Elsewhere Classified (SIC 4939). The SBA defines this utility as providing a combination of electric, gas, and other services which are not otherwise classified. The Census Bureau reports that a total of 79 such utilities were in operation for at least one year at the end of 1992. According to SBA's definition, a small combination utility is a firm whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 63 of the 79 firms listed had total revenues below five million dollars.

(2) Gas Production and Distribution
(SIC 4922, 4923, 4924, 4925 & 4932)

139. Natural Gas Transmission (SIC 4922). The SBA's definition of a natural gas transmitter is an entity that is engaged in the transmission and storage of natural gas. The Census Bureau reports that a total of 144 such firms were in operation for at least one year at the end of 1992. According to SBA's definition, a small natural gas transmitter is an entity whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 70 of the 144 firms listed had total revenues below five million dollars.

140. Natural Gas Transmission and Distribution (SIC 4923). The SBA has classified this entity as a utility that transmits and distributes natural gas for sale. The Census Bureau reports that a total of 126 such entities were in operation for at least one year at the end of 1992. The SBA's definition of a small natural gas transmitter and distributer is a firm whose gross revenues did not exceed five million dollars. The Census Bureau reported that 43 of the 126 firms listed had total revenues below five million dollars.

141. Natural Gas Distribution (SIC 4924). The SBA defines a natural gas distributor as an entity that distributes natural gas for sale. The Census Bureau reports that a total of 478 such firms were in operation for at least one year at the end of 1992. According to the SBA, a small natural gas distributor is an entity whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 267 of the 478 firms listed had total revenues below five million dollars.

142. Mixed, Manufactured, or Liquefied Petroleum Gas Production and/or Distribution (SIC 4925). The SBA has classified this entity as a utility that engages in the manufacturing and/or distribution

of the sale of gas. These mixtures may include natural gas. The Census Bureau reports that a total of 43 such firms were in operation for at least one year at the end of 1992. The SBA's definition of a small mixed, manufactured or liquefied petroleum gas producer or distributor is a firm whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 31 of the 43 firms listed had total revenues below five million dollars.

143. Gas and Other Services Combined (SIC 4932). The SBA has classified this entity as a gas company whose business is less than 95% gas, in combination with other services. The Census Bureau reports that a total of 43 such firms were in operation for at least one year at the end of 1992. According to the SBA, a small gas and other services combined utility is a firm whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 24 of the 43 firms listed had total revenues below five million dollars.

(3) Water Supply (SIC 4941)

144. The SBA defines a water utility as a firm who distributes and sells water for domestic, commercial and industrial use. The Census Bureau reports that a total of 3,169 water utilities were in operation for at least one year at the end of 1992. According to SBA's definition, a small water utility is a firm whose gross revenues did not exceed five million dollars in 1992. The Census Bureau reported that 3065 of the 3169 firms listed had total revenues below five million dollars.

(4) Sanitary Systems (SIC 4952, 4953 & 4959)

145. Sewerage Systems (SIC 4952). The SBA defines a sewage firm as a utility whose business is the collection and disposal of waste using sewage systems. The Census Bureau reports that a total of 410 such firms were in operation for at least one year at the end of 1992. According to SBA's definition, a small sewerage system is a firm whose gross revenues did not exceed five million dollars. The Census Bureau reported that 369 of the 410 firms listed had total revenues below five million dollars.

146. Refuse Systems (SIC 4953). The SBA defines a firm in the business of refuse as an establishment whose business is the collection and disposal of refuse "by processing or destruction or in the operation of incinerators, waste treatment plants, landfills, or other sites for disposal of such materials." The Census Bureau reports that a total of 2287 such firms were in operation for at least one year at the end of 1992. According to SBA's definition, a small refuse system is a firm whose gross revenues did not exceed six million dollars. The Census Bureau reported that 1908 of the 2287 firms

listed had total revenues below six million dollars.

147. Sanitary Services, Not Elsewhere Classified (SIC 4959). The SBA defines these firms as engaged in sanitary services. The Census Bureau reports that a total of 1214 such firms were in operation for at least one year at the end of 1992. According to SBA's definition, a small sanitary service firms gross revenues did not exceed five million dollars. The Census Bureau reported that 1173 of the 1214 firms listed had total revenues below five million dollars.

(5) Steam and Air Conditioning Supply (SIC 4961)

148. The SBA defines a steam and air conditioning supply utility as a firm who produces and/or sells steam and heated or cooled air. The Census Bureau reports that a total of 55 such firms were in operation for at least one year at the end of 1992. According to SBA's definition, a steam and air conditioning supply utility is a firm whose gross revenues did not exceed nine million dollars. The Census Bureau reported that 30 of the 55 firms listed had total revenues below nine million dollars.

(6) Irrigation Systems (SIC 4971)

149. The SBA defines irrigation systems as firms who operate water supply systems for the purpose of irrigation. The Census Bureau reports that a total of 297 firms were in operation for at least one year at the end of 1992. According to SBA's definition, a small irrigation service is a firm whose gross revenues did not exceed five million dollars. The Census Bureau reported that 286 of the 297 firms listed had total revenues below five million dollars.

b. Telephone Companies (SIC 4813)

150. Many of the decisions and rules adopted herein may have a significant effect on a substantial number of small telephone companies. The SBA has defined a small business for SIC code 4813 (Telephone Communications, except Radiotelephone) to be a small entity when it has no more than 1500 employees. The Census Bureau reports that, at the end of 1992, there were 3497 firms engaged in providing telephone services, as defined therein, for at least one year. This number contains a variety of different categories of carriers, including local exchange carriers ("LECs"), interexchange carriers ("IXCs"), competitive access providers ("CAPs"), cellular carriers, mobile service carriers, operator service providers, pay telephone operators, personal communications service ("PCS") providers, covered SMR providers and resellers. Some of those 3497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated." We therefore conclude that fewer than 3497 telephone service firms are small entity telephone

service firms or small incumbent LECs that may be affected by this Order. Below, we estimate the potential number of small entity telephone service firms or small incumbent LEC's that may be affected by the rules adopted herein in this service category.

(1) Wireline Carriers and Service Providers

151. The SBA has developed a definition of small entities for telephone communications companies other than radiotelephone (wireless) companies. The Census Bureau reports that, there were 2321 such telephone companies in operation for at least one year at the end of 1992. According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1500 persons. Of the 2321 non-radiotelephone companies listed by the Census Bureau, 2295 were reported to have fewer than 1000 employees. Thus, at least 2295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs, or small entities based on these employment statistics. Although some of these carriers are likely not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 2295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions or rules adopted in this Order.

(2) Local Exchange Carriers

152. Neither the Commission nor SBA has developed a definition of small providers of local exchange services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies (SIC 4813). The most reliable source of information regarding the number of LECs nationwide appears to be the data that the Commission publishes annually in its Telecommunications Industry Revenue report, regarding the Telecommunications Relay Service ("TRS"). According to "TRS Worksheet" data released in November 1997, there are 1371 companies reporting that they categorize themselves as LECs. Although some of these carriers are likely not independently owned and operated, or have more than 1500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1371 small incumbent LECs that may be affected by the rules adopted herein.

(3) Interexchange Carriers

153. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of interexchange services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies (SIC 4813). The most reliable source of information regarding the number of IXCs nationwide of which we are aware appears to be the data that we collect annually in connection with TRS. According to our most recent data, 143 companies reported that they were engaged in the provision of interexchange services. Although some of these carriers are likely not independently owned and operated, or have more than 1500 employees, we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 143 small entity IXCs that may be affected by the decisions and rules adopted in this Order.

(4) Competitive Access Providers

154. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies (SIC 4813). The most reliable source of information regarding the number of CAPs nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS Worksheet. According to our most recent data, 109 companies reported that they were engaged in the provision of competitive access services. Although some of these carriers are likely not independently owned and operated, or have more than 1500 employees, we are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 109 small entity CAPs that may be affected by the decisions and rules adopted herein.

(5) Cellular Service Carriers

155. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of cellular services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies (SIC 4812). The most reliable source of information regarding the number of cellular service carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS Worksheet. The TRS Worksheet places cellular licensees and Personal Communications Service ("PCS") licensees in one

group. According to the most recent data, there are 804 carriers reporting that they categorize themselves as either PCS or cellular carriers. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1500 employees, we are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 804 small entity cellular service carriers that may be affected by the decisions and rules adopted in this Order.

(6) Mobile Service Carriers

156. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to mobile service carriers, such as paging companies. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies (SIC 4813). The most reliable source of information regarding the number of mobile service carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS Worksheet. According to our most recent data, 172 companies reported that they were engaged in the provision of mobile services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1500 employees, we are unable at this time to estimate with greater precision the number of mobile service carriers that would qualify under SBA's definition. Consequently, we estimate that there are fewer than 172 small entity mobile service carriers that may be affected by the decisions and rules adopted in this Order.

(7) Broadband Personal Communications Services ("PCS") Licensees

157. The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission has defined "small entity" for Blocks C and F as an entity that has average gross revenues of less than $40 million in the three previous calendar years. For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with their affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years. These regulations defining "small entity" in the context of broadband PCS auctions has been approved by the SBA. No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auction. A total of 93 small and very small business bidders won approximately 40% of the 1479 licenses for Blocks D, E, and F. However, licenses for

blocks C through F have not been awarded fully, therefore there are few, if any, small businesses currently providing PCS services. Based on this information, we conclude that the number of broadband PCS licensees will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a total of 183 small PCS providers as defined by the SBA and the Commission's auction rules. We note that the TRS Worksheet data track PCS licensees in the reporting category "Cellular or Personal Communications Service Carrier." As noted supra in the paragraph regarding cellular carriers, according to the most recent data, there are 804 carriers reporting that they place themselves in this category.

(8) Specialized Mobile Radio ("SMR") Licensees

158. Pursuant to 47 C.F.R. 90.814(b)(1) and 90.912(b)(1), the Commission has defined small entity in auctions for geographic area 800 MHz and 900 MHz SMR licenses as a firm that had average annual gross revenues of less than $15 million in the three previous calendar years. This definition of a small entity in the context of 800 MHz and 900 MHz SMR has been approved by the SBA. The rules adopted in this Order may apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than $15 million. We assume, for purposes of this FRFA, that all of the extended implementation authorizations may be held by small entities which may be affected by the decisions and rules adopted in this Order. We note that the TRS Worksheet data track SMR licensees in the reporting category "Paging and Other Mobile Carriers." According to the most recent data, there are 172 carriers, including SMR carriers, reporting that they place themselves in this category.

159. The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders that qualified as small entities in the 900 MHz auction. Based on this information, we conclude that the number of 900 MHz geographic area SMR licensees affected by the rules adopted in this Order includes these 60 small entities. The Commission also recently held auctions for the 525 licenses for the upper 200 channels in the 800 MHz SMR band. There were 10 winning bidders that qualified as small entities in that auction. Based on this information, we conclude that the number of geographic area SMR licensees that may be affected by the rules adopted in this Order also includes these 10 small entities. However, the Commission has not yet determined how many

licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction.
There is no basis, moreover, on which to estimate how many small entities will win these licenses.
Given that nearly all radiotelephone companies have fewer than 1000 employees and that no reliable
estimate of the number of prospective 800 MHz licensees for the lower 230 channels can be made, we
assume, for purposes of this FRFA, that all of the licenses may be awarded to small entities that may be
affected by the decisions and rules adopted in this Order.

(9) Resellers

160. Neither the Commission nor SBA has developed a definition of small entities specifically
applicable to resellers. The closest applicable definition under SBA rules is for all telephone
communications companies (SIC 4812 and 4813). The most reliable source of information regarding the
number of resellers nationwide of which we are aware appears to be the data that we collect annually in
connection with the TRS Worksheet. According to our most recent data, 339 companies reported that they
were engaged in the resale of telephone services. Although it seems certain that some of these carriers
are not independently owned and operated, or have more than 1500 employees, we are unable at this time
to estimate with greater precision the number of resellers that would qualify as small business concerns
under SBA's definition. Consequently, we estimate that there are fewer than 339 small entity resellers
that may be affected by the decisions and rules adopted in this Order.

c. Wireless (Radiotelephone) Carriers (SIC 4812)

161. Although wireless carriers have not historically affixed their equipment to utility poles,
pursuant to the terms of the 1996 Act, such entities are entitled to do so with rates consistent with the
Commission's rules discussed herein. SBA has developed a definition of small entities for radiotelephone
(wireless) companies. The Census Bureau reports that there were 1176 such companies in operation for
at least one year at the end of 1992. According to SBA's definition, a small business radiotelephone
company is one employing no more than 1500 persons. The Census Bureau also reported that 1164
of those radiotelephone companies had fewer than 1000 employees. Thus, even if all of the remaining
12 companies had more than 1500 employees, there would still be 1164 radiotelephone companies that
might qualify as small entities if they are independently owned and operated. Although some of these
carriers are likely not independently owned and operated, we are unable at this time to estimate with
greater precision the number of radiotelephone carriers and service providers that would qualify as small
business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1164

small entity radiotelephone companies that may be affected by the rules adopted herein.

d. Cable System Operators (SIC 4841)

162. The SBA has developed a definition of small entities for cable and other pay television services, which includes all such companies generating less than $11 million in revenue annually. This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau, there were 1423 such cable and other pay television services generating less than $11 million in revenue.

163. The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company," is one serving fewer than 400,000 subscribers nationwide. Based on our most recent information, we estimate that there were 1439 cable systems that qualified as small cable system operators at the end of 1995. Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable systems. Consequently, we estimate that there are fewer than 1439 small entity cable system operators that may be affected by the decisions and rules adopted in this Order.

164. The Communications Act also contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000." The Commission has determined that there are 61,700,000 subscribers in the United States. Therefore, we found that an operator serving fewer than 617,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate. Based on available data, we find that the number of cable systems serving 617,000 subscribers or less totals 1450. Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable systems under the definition in the Communications Act.

e. Municipalities

165. The term "small governmental jurisdiction" is defined as "governments of . . . districts,

with a population of less than 50,000." There are 85,006 governmental entities in the United States. This number includes such entities as states, counties, cities, utility districts and school districts. We note that Section 224 specifically excludes any utility which is cooperatively organized, or any person owned by the Federal Government or any State. For this reason, we believe that Section 224 will have minimal if any affect upon small municipalities. Further, there are 18 states and the District of Columbia that regulate pole attachments pursuant to Section 224(c)(1). Of the 85,006 governmental entities, 38,978 are counties, cities and towns. The remainder are primarily utility districts, school districts, and states. Of the 38,978 counties, cities and towns, 37,566 or 96%, have populations of fewer than 50,000.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

166. The rules adopted in this Order will require a change in certain recordkeeping requirements. A utility pole owner will now have to maintain specific records relating to the number of attachers for purposes of determining and updating its presumptive average number of attachers for computing the unusable space calculation for the telecommunications carrier rate formula. The utility pole owner may also require the services of an accountant to determine the new telecommunications rate. In addition, our rules adopted herein will require cable operators to notify the pole owner(s) if and when the cable operator begins providing telecommunications services. We sought comment in the Notice on whether small entities may be required to hire additional staff and expend additional time and money to comply with the proposals set forth in the Notice. In addition, we sought comment as to whether there will be a disproportionate burden placed on small entities in complying with the proposals set forth in this Order.

167. We did not receive any comments asserting that small entities will be required to hire additional staff and expend additional time and money to determine the appropriate rate for telecommunications carriers under our new rules. SCBA was the only commenter to claim that there will be a disproportionate burden placed on small entities. SCBA claims that small cable systems will be particularly hurt by the statutory exemption of cooperatives from the definition of utility because small cable systems often operate in rural areas and therefore necessarily attach their plant to rural telephone and electric cooperatives. We note that SBCA does not appear to be claiming that our rules will disproportionately burden small cable systems, but that where our rules do not apply, small cable system operators will be disproportionately harmed. Because the exemption for cooperatives was set forth by

Congress clearly in Section 224(a)(1), the Commission is unable to address SBCA's concerns in this regard. We conclude that our rules will not disproportionately burden small entities.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

168. The 1996 Act requires the Commission to adopt a telecommunications carrier methodology within two years of the enactment of the 1996 Act. We sought comment in the Notice on various alternative ways of implementing the statutory requirements and any other potential impact of these proposals on small business entities. We sought comment on the implementation of a methodology to ensure just, reasonable and nondiscriminatory pole attachment and conduit rates for telecommunications carriers. We also sought comment on how to develop a rights-of-way rate methodology for telecommunications carriers.

169. In accordance with the RFA, the Commission has endeavored to minimize significant impact on small entities. With regard to our pole attachments complaint process, we rejected a proposal that we establish an amount in controversy as a minimum threshold for filing a complaint because, among other things, it might preclude small entities from obtaining relief from unjust, unreasonable or discriminatory pole attachment rates. We also rejected as too burdensome the suggestion that cable operators be required to certify annually as to whether they are providing telecommunications services. To minimize the burden on utility pole owners, including those that qualify as small entities, and to promote certainty and efficiency in determining the pole attachment rate for telecommunications carriers, we have maintained our formula presumptions, including our one-foot presumption of usable space. We also determined that, as an alternative to requiring utility pole owners to conduct potentially expensive pole-by-pole inventories for the number of attachers on each pole, we would require pole owners to develop, through information it possesses, a presumptive average number of attachers, based on location (i.e., urban, rural and urbanized).

170. Report to Congress: The Commission will send a copy of the Order, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, see 5 U.S.C. 801(a)(1)(A). A copy of the Order and this FRFA (or summary thereof) will also be published in the Federal Register, see 5 U.S.C. 604(b), and will be sent to the Chief Counsel for Advocacy of the Small Business Administration.

VIII. PAPERWORK REDUCTION ACT OF 1995 ANALYSIS

171. The requirements adopted in this Order have been analyzed with respect to the Paperwork Reduction Act of 1995 (the "1995 Act") and found to impose modified information collection requirements on the public. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public to take this opportunity to comment on the information collection requirements contained in this Order, as required by the 1995 Act. Public comments are due 60 days from date of publication of this Order in the Federal Register. Comments should address: (1) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (2) the accuracy of the Commission's burden estimates; (3) ways to enhance the quality, utility, and clarity of the information collected; and (4) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

172. As stated above, written comments by the public on the modified information collection requirements are due 60 days from date of publication of this Order in the Federal Register. Comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, Room 234, 1919 M Street, NW, Washington, DC 20554, or via the Internet to jboley@fcc.gov. For additional information on the information collection requirements, contact Judy Boley at 202-418-0214 or via the Internet at the above address.

IX. ORDERING CLAUSES

173. IT IS ORDERED that, pursuant to Sections 1, 4(i) and 224 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i) and 224, the Commission's rules are hereby amended as set forth in Appendix A.

174. IT IS FURTHER ORDERED that Section 1.1402 of the Commission's rules, as amended in Appendix A hereto, will become effective 30 days after the date of publication of this Report and Order in the Federal Register, and that Sections 1.1403, 1.1404, 1.1409, 1.1417 and 1.1418 of the Commission's rules, as amended in Appendix A hereto, will become effective 140 days after the date of publication of this Report and Order in the Federal Register, unless the Commission publishes a notice before that date stating that the Office of Management and Budget ("OMB") has not approved the information collection requirements contained in the rules.

175. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this Report and Order, including the Final Regulatory

Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A

Revised Rules

Part 1 of title 47 of the Code of Federal Regulations is amended as follows:

PART 1 -- PRACTICE AND PROCEDURE

1. The authority citation for Part 1 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154, 303, and 309(j) unless otherwise noted.

2. Section 1.1402 is amended by revising paragraph (c) and by adding new paragraphs (i), (j), (k), (l) and (m) to read as follows:

Sec. 1.1402 Definitions.

* * * * *

(c) With respect to poles, the term usable space means the space on a utility pole above the minimum grade level which can be used for the attachment of wires, cables, and associated equipment. With respect to conduit, the term usable space means space within a conduit system which is available, or which could, with reasonable effort and expense, be made available, for the purpose of installing wires, cable and associated equipment for telecommunications services.

* * * * *

(i) The term conduit means a pipe placed in the ground in which cables and/or wires may be installed.

(j) The term conduit system means structures that provide physical protection for cable and/or wires that allow new cables to be added along a route.

(k) The term duct means a single enclosed raceway for conductors, cable and/or wire.

(l) With respect to poles, the term unusable space means the space on a utility pole below the usable space, including the amount required to set the depth of the pole. With respect to conduit, the term unusable space means space involved in the construction of a conduit system, without which there

would be no usable space, and maintenance ducts reserved for the benefit of all conduit users.

(m) The term attaching entity includes cable operators, telecommunications carriers, incumbent local exchange carriers, utilities and governmental entities providing cable or telecommunications services.

3. Section 1.1403 is amended by retitling the section and by adding new paragraph (e) to read as follows:

Sec. 1.1403 Duty to provide access; modifications; notice of removal, increase or modification; petition for temporary stay; and cable operator notice.

* * * * *

(e) Cable operators must notify pole owners upon offering telecommunications services.

4. Section 1.1404 is amended to add a new subsection (g)(12) and new paragraphs (h), (i), and (j) to read as follows, and to redesignate old paragraphs (g)(12), (h), (i), (j) and (k) as (g)(13), (k), (l), (m) and (n), respectively:

Sec. 1.1404 Complaint.

* * * * *

(g) * * * * *

(12) The average amount of unusable space per pole for those poles used for pole attachments (a 24 foot presumption may be used in lieu of actual measurement, but the presumption may be rebutted); and

* * * * *

(h) With respect to attachments within a duct or conduit system, where it is claimed that either a rate is unjust or unreasonable, or a term or condition is unjust or unreasonable and examination of such term or condition requires review of the associated rate, the complaint shall provide data and information in support of said claim. The data and information shall include, where applicable, equivalent information as specified in paragraph (g) of this section.

(i) With respect to rights-of-way, where it is claimed that either a rate is unjust or unreasonable, or a term or condition is unjust or unreasonable and examination of such term or condition requires review of the associated rate, the complaint shall provide data and information in support of said claim. The data and information shall include, where applicable, equivalent information as specified in paragraph (g) of this section.

(j) If any of the information and data required in paragraphs (g), (h) and (i) of this section is not provided to the cable television operator or telecommunications carrier by the utility upon reasonable request, the cable television operator or telecommunications carrier shall include a statement indicating the steps taken to obtain the information from the utility, including the dates of all requests. No complaint filed by a cable television operator or telecommunications carrier shall be dismissed where the utility has failed to provide the information required under paragraphs (g), (h) or (i) of this section, as applicable, after such reasonable request. A utility must supply a cable television operator or telecommunications carrier the information required in paragraph (g), (h) or (i) of this section, as applicable, along with the supporting pages from its FERC Form 1, FCC Form M, or other report to a regulatory body, within 30 days of the request by the cable television operator or telecommunications carrier. The cable television operator or telecommunications carrier, in turn, shall submit these pages with its complaint. If the utility did not supply these pages to the cable television operator or telecommunications carrier in response to the information request, the utility shall supply this information in its response to the complaint.

5. Section 1.1409 is amended by revising paragraph (e) and adding a new paragraph (f) to read as follows:

Sec. 1.1409 Commission consideration of the complaint.

* * * * *

(e) When parties fail to resolve a dispute regarding charges for pole attachments and the Commission's complaint procedures under Section 1.1404 are invoked, the Commission will apply the following formulas for determining a maximum just and reasonable rate:

(1) The following formula shall apply to attachments by cable operators providing cable services. This formula shall also apply to attachments by any telecommunications carrier (to the extent such carrier is not a party to a pole attachment agreement) or cable operator providing telecommunications services until February 8, 2001:

$$\text{Maximum Rate} = \frac{\text{Space Occupied by Attachment}}{\text{Total Usable Space}} \times \text{Net Cost of Bare Pole} \times \text{Carrying Charge Rate}$$

(2) Subject to subsection (f) the following formula shall apply to pole attachments on a pole by any telecommunications carrier (to the extent such carrier is not a party to a pole attachment agreement) or cable operator providing telecommunications services beginning on February 8, 2001:

Maximum Pole Rate = Unusable Space Factor + Usable Space Factor

For purposes of this formula, the unusable space factor, as defined under Section 1.1417(b), and the usable space factor, as defined under Section 1.1418(b), shall apply per pole.

(3) Subject to subsection (f) the following formula shall apply to pole attachments within a conduit system beginning on February 8, 2001:

Maximum Conduit Conduit
Conduit Rate = Unusable Space Factor + Usable Space Factor

For purposes of this formula, the conduit unusable space factor, as defined under Section 1.1417(c), and the conduit usable space factor, as defined under Section 1.1418(c), shall apply to each linear foot occupied.

(f) Subsections (e)(2) and (e)(3) of this section shall become effective February 8, 2001 (i.e., five years after the effective date of the Telecommunications Act of 1996). Any increase in the rates for pole attachments that result from the adoption of such regulations shall be phased in over a period of five years beginning on the effective date of such regulations in equal annual increments. The five-year phase-in is to apply to rate increases only. Rate reductions are to be implemented immediately. The determination of any rate increase shall be based on data currently available at the time of the calculation of the rate increase.

6. Section 1.1417 is added to read as follows:

Sec. 1.1417 Allocation of Unusable Space Costs.

(a) A utility shall apportion the cost of providing unusable space on a pole, duct, conduit, or right-of-way so that such apportionment equals two-thirds of the costs of providing unusable space that would be allocated to such entity under an equal apportionment of such costs among all entities.

(b) With respect to poles, the following formula shall be used to establish the allocation of unusable space costs on a pole for telecommunications carriers and cable operators providing telecommunications services:

Pole Unusable Space Factor = 2/3 X Unusable Space Pole Height X Net Cost of Bare Pole Number of Attachers X Carrying Charge Rate

All attaching entities shall be counted as separate attaching entities for purposes of apportioning the costs of unusable space.

(c) With respect to conduit, the following formula shall be used to establish the allocation of unusable space costs for telecommunications carriers and cable operators providing

telecommunications
services within a conduit:

Conduit Unusable Space Factor = 2 / 3 X Net Linear Cost of Unusable Conduit Space X Carrying Charge Rate / Number of Attachers

All attaching entities with lines occupying any portion of a conduit system shall be counted as separate
attaching entities for purposes of apportioning the costs of unusable space.

(d) Each utility shall establish a presumptive average number of attachers for each of its rural,
urban, and urbanized service areas (as defined by the Bureau of Census of the Department of Commerce).

(1) Each utility shall, upon request, provide all attaching entities and all entities seeking
access the methodology and information upon which the utilities presumptive average number of attachers
is based.

(2) Each utility is required to exercise good faith in establishing and updating its
presumptive average number of attachers.

(3) The presumptive average number of attachers may be challenged by an attaching entity by submitting information demonstrating why the utility's presumptive average is incorrect. The
attaching entity should also submit what it believes should be the presumptive average and the
methodology used. Where a complete inspection is impractical, a statistically sound survey may be
submitted.

(4) Upon successful challenge of the existing presumptive average number of attachers,
the resulting data determined shall be used by the utility as the presumptive number of attachers within
the rate formula.

7. Section 1.1418 is added to read as follows:

Sec. 1.1418 Allocation of Usable Space Costs.

(a) A utility shall apportion the amount of usable space among all entities according to the
percentage of usable space required by each entity.

(b) With respect to poles, the following formula shall be used to establish the allocation of usable
space costs on a pole for telecommunications carriers and cable operators providing telecommunications
services:

Pole Usable Space Factor = Space Occupied by Attachment / Total Usable Space X Net Cost of Pole Height X Carrying Charge Rate for Bare Pole / Total Usable Space

The presumptive 13.5 feet of usable space may be used in lieu of the actual measurement of the total amount of usable space. The presumptive 37.5 feet of pole height may be used in lieu of the actual measurement of each pole. The presumptive one foot of space occupied by attachment is applicable to both cable operators and telecommunications carriers.

(c) With respect to conduit, the following formula shall be used to establish the allocation of usable space costs within a conduit system:

Conduit Usable Space = 1 / 2 X 1 Duct / Average Number of Ducts X Linear Cost of Usable Conduit less Adjustments for maintenance ducts X Carrying Charge Rate

With respect to conduit, an attacher is presumed to occupy one half-duct of usable space.

APPENDIX B

List of Commenters

Note: If no abbreviation appears in parentheses following the full name of the party, the full name is used in this Order.

Comments in CS Docket No. 97-151

Adelphia Communications Corp., Arizona Cable Telecommunications Association, Pennsylvania Cable & Telecommunications Association and Suburban Cable TV Co. Inc. (Adelphia, et al.)
American Electric Power Service Corporation, Commonwealth Edison Company, Duke Energy Corporation and Florida Power and Light Company (American Electric, et al.)
Ameritech
AT&T Corp. (AT&T)
Bell Atlantic
Cable Television & Telecommunications Association of New York, Inc. (New York Cable Television Assn.)
Carolina Power & Light Company, Delmarva Power & Light Company, Atlantic City Electric Company, Entergy Services, Florida Power Corporation, Pacific Gas and Electric Company, Potomac Electric Power Company, Public Service Company of Colorado, Southern Company, Georgia Power, Alabama Power, Gulf Power, Mississippi Power, Savannah Electric, Tampa Electric Company and Virginia Power, including North Carolina Power (Carolina Power, et al.)
City of Colorado Springs on behalf of Colorado Springs Utilities (Colorado Springs Utilities)
Comcast Corporation, Charter Communications, Marcus Cable Operating Co., L.P., Rifkin & Associates, Greater Media, Inc., Texas Cable & Telecommunications Association, Cable Telecommunications Association of Maryland, Delaware and District of Columbia and Mid-America Cable TV Association (Comcast, et al.)
Consolidated Edison Company of New York, Inc., Central Hudson Gas & Electric Corporation, Long Island Lighting Company, New York State Electric & Gas

Corporation,
Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas
and Electric Corporation (New York State Investor Owned Electric Utilities)
Dayton Power and Light Company (Dayton Power)
Duquesne Light Company (Duquesne Light)
Edison Electric Institute and UTC, the Telecommunications Association (Edison Electric/UTC)
GTE Service Corporation (GTE)
ICG Communications, Inc. (ICG Communications)
KMC Telecom Inc. (KMC Telecom)
MCI Telecommunications Corporation (MCI)
National Cable Television Association (NCTA)
Ohio Edison Company (Ohio Edison)
Omnipoint Communications Inc. (Omnipoint)
RCN Telecom Services, Inc. (RCN)
SBC Communications Inc. (SBC)
Sprint Local Telephone Companies (Sprint)
Summit Communications, Inc. (Summit)
Teligent, L.L.C. (Teligent)
Texas Utilities Electric Company (Texas Utilities)
Union Electric Company (Union Electric)
United States Telephone Association (USTA)
U S West, Inc. (U S West)
Winstar Communications, Inc. (Winstar)

Reply Comments in CS Docket No. 97-151

Adelphia Communications Corp., Arizona Cable Telecommunications Association, Pennsylvania Cable & Telecommunications Association and Suburban Cable TV Co. Inc. (Adelphia, et al.)
American Electric Power Service Corporation, Commonwealth Edison Company, Duke Energy Corporation and Florida Power and Light Company (American Electric, et al.)
Ameritech
AT&T Corp. (AT&T)
Bell Atlantic
BellSouth Corporation (BellSouth)
Carolina Power & Light Company, Delmarva Power & Light Company, Atlantic City Electric Company, Entergy Services, Florida Power Corporation, Pacific Gas and Electric Company,
Potomac Electric Power Company, Public Service Company of Colorado, Southern Company,
Georgia Power, Alabama Power, Gulf Power, Mississippi Power, Savannah Electric, Tampa
Electric Company and Virginia Power, including North Carolina Power (Carolina Power, et al.)
Champlain Valley Telecom Inc., Waitsfield-Fayston Telephone Co., Inc., and Waitsfield Cable
Television, a Division of Waitsfield-Fayston Telephone Co., Inc. (Champlain Valley Telecom,
et al.)
Comcast Cable Communications, Inc., Charter Communications, Marcus Cable Operating Co., L.P., Rifkin & Associates, Greater Media, Inc., Texas Cable & Telecommunications Association,
Cable Telecommunications Association of Maryland, Delaware and District of Columbia and
Mid-America Cable TV Association (Comcast, et al.)
Edison Electric Institute and UTC, the Telecommunications Association (Edison Electric/UTC)

GTE Service Corporation (GTE)
ICG Communications, Inc. (ICG Communications)
KMC Telecom Inc. (KMC Telecom)
MCI Telecommunications Corporation (MCI)
National Cable Television Association (NCTA)
Ohio Edison Company and Union Electric Company (Ohio Edison/Union Electric)
Omnipoint Communications Inc. (Omnipoint)
SBC Communications Inc. (SBC)
Small Cable Business Association (SCBA)
Sprint Local Telephone Companies (Sprint)
Teligent, L.L.C. (Teligent)
Texas Utilities Electric Company (Texas Utilities)
United States Telephone Association (USTA)
U S West, Inc. (U S West)
Winstar Communications, Inc. (Winstar)