

Recent Developments in Pole Attachment Regulation

by

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Abstract

Motivated to a large extent by the objective of facilitating broadband investment, a 2011 Federal Communications Commission's (FCC) order made substantial changes in pole attachment rules. Among the more significant provisions were (1) lowering the maximum rate pole owners charge telecommunications carriers other than incumbent local exchange carriers (ILECs), with the objective of parity with the maximum rate chargeable to cable television providers and (2) providing ILECs with the right to just and reasonable rates for attachments to electric utility poles and a forum for adjudicating disputes, with competitive parity among ILECs and other broadband providers an important rationale. Subsequent to these rules, a number of attachers filed complaints with the FCC's Enforcement Bureau. During 2015, the FCC released three significant orders: (1) an Enforcement Bureau order on a dispute filed by an ILEC, (2) the Open Internet Order that reclassified broadband as a telecommunications service, thereby arguably making cable television providers subject to the telecommunications rate, and (3) an order that modified the formulas for the telecommunications attachments to assure the parity with the cable rate intended by the 2011 order.

This paper describes these orders, as well as the history and the positions of major parties. Specific issues include (1) key consideration in establishing pole attachment rates and (2) potential differences in agreements between electric utilities and ILECs, on the one hand, and agreements between electric utilities and other telecommunications carriers and/or cable companies, on the other hand, that should be considered when determining whether rates charged to ILECs facilitate efficient competition among ILECs and other broadband providers and are otherwise just and reasonable.

Keywords Pole attachments, regulated rates, wholesale inputs. competitive parity

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1. Introduction

During the nearly century-long period in which owners of utility pole infrastructure have been sharing their facilities with other companies (Huther et al. 2008), processes for establishing and regulating rates have evolved as new types of companies emerged and legislation and regulation accommodated their entry. These developments resulted in large differences among the rates charged to different types of companies attaching to the same poles. While such disparities were manageable when the different types of companies provided services not in competition with one another, e.g., electric service, traditional telephone service, and cable television service, the convergence of formerly distinct markets, especially with the advent of broadband Internet access, have made pole attachment rate disparities increasingly problematic. This paper

describes regulatory efforts to rationalize pole attachment rates, with emphasis on recent actions at the Federal Communications Commission (FCC) to reinforce earlier actions intended to provide competitive neutrality among broadband providers.

The rest of the paper is organized as follows. First, a brief historical review of the period preceding the FCC's 2011 Pole Attachment Order provides a context for the FCC's objectives. The next section describes the mechanisms the FCC's 2011 order established to provide economically rationale rental rates for pole attachments, with the objective of facilitating competition among broadband service providers. The following section summarizes three FCC orders released in 2015, which were intended to better align the evaluation of rental rates with the competitive neutrality and broadband competition objectives of the 2011 order. The penultimate section deals with the evaluation of whether rates charged to incumbent local exchange carriers (ILECs) are just and reasonable under guidance suggested by the 2015 orders. The final section concludes the paper.

2. Background

2.1 History

Attachments owned by one party to the poles owned by another party are based on contracts that specify the rates as well as numerous other terms and conditions. The contracts for parties attaching to the poles of a particular owner typically differ in significant ways, including the annual rental rates particular attachers pay for occupying comparable amounts of space. These differences reflect, among other factors, current and historical differences in how pole attachments are regulated at the federal and state levels.

Initially, pole attachment contracts were often joint use agreements between electric and telephone utilities designed to economically accommodate the growing demand for electric and telephone services. Under these arrangements, electric and telephone utilities occupied similar amounts of space and had comparable levels of pole ownership. Indeed, under such parity conditions, there was often no need for one party to pay the other party for annual rents, since the payments going in either direction were roughly equal.

There have been a number of trends, both operational and regulatory, that have made the parity arrangements motivating the initial joint use agreements no longer viable. First, the space requirements of electric utilities have grown over time, while those of telephone companies have shrunk to a point where electric utility attachments occupy a multiple of the space required for telephone attachments. Second, there has been a concomitant shift of pole ownerships shares toward electric utilities: while both parties once typically owned fairly comparable shares of joint use poles, the ownership shares trended to electric utilities now owning on average 65 percent to 70 percent of poles (FCC 2011, ¶ 206). Third, other parties now place attachments on poles owned by electric companies and telephone companies. Cable television providers began

operating in the 1950s and since 1978 maximum pole attachment rates subject to FCC jurisdiction have been determined by a formula based on how much space the attachments require. Similarly, new telecommunications providers, mainly entering as a result of the 1996 Telecommunications Act, can attach to poles at rates that have been well below those charged to incumbent telephone companies. Today, some electric utilities report that there are more of these “third-party” attachments by cable television and new telecommunications companies on their utility poles attachments than there are ILEC attachments.¹

2.2 Jurisdiction

The provisions of the Communications Act result in differences in how particular types of pole owners are regulated. In particular, states can certify that they regulate the terms and conditions of pole attachments, including the establishment of rules and regulations and processes for resolving complaints.² To date, 21 states have certified that they regulate pole attachments. Second, electric cooperatives are not subject to pole attachment regulation in those states remaining under the jurisdiction of the FCC.³

While the FCC’s pole attachment regulations establish maximum rates, they only come into play in the event that a party challenges a contract by filing a complaint. Then, if the FCC’s determines that the rate in question is not just and reasonable, it applies formulas with available data to replace the disputed rate. That is, unlike the familiar regulated rate case situation, in which the regulator sets rates based on the cost of service, absent a compliant the attachment rates are negotiated between pole owners and attaching parties.

3. 2011 Pole Attachment Order

In recognition that the then-existing disparity in rates among different categories of companies attaching to electric and telephone poles may not be rational, especially in the case of attachments for facilities providing broadband Internet access, the FCC (2007) opened an investigation of rental rates, starting with the tentative conclusions that attachments for facilities used to provide broadband access services be charged the same rate. This investigation, which became part of the National Broadband Plan (FCC, 2010), culminated in a 2011 order intended to equalize rates among cable television and new telecommunications providers and provide ILECs the right to just and reasonable rates. The explicit objective of the FCC’s 2011 order reforming pole attachment regulation was facilitating the deployment of broadband services (FCC 2011, ¶ 1):

[W]e comprehensively revise our pole attachment rules to improve the efficiency and reduce the potentially excessive costs of deploying telecommunications,

¹ See, for example, Kennedy (2008, ¶ 18), reporting that there were one-third more third-party attachments on the poles owned by Florida Power and Light than there were attachments owned by ILECs.

² 47 C.F.R., Section 224(c)(2)-(3)

³ 47 C.F.R., Section 224(a)(1)

cable, and broadband networks, in order to accelerate broadband buildout. The Order is designed to promote competition and increase the availability of robust, affordable telecommunications and advanced services to consumers throughout the nation.

3.1 New Telecommunications Rates

The 2011 order included two major rental rate provisions intended to lower pole attachment costs. First, prior to this order, the maximum rates chargeable to cable television providers were substantially lower than the corresponding maximum rates for new telecommunications providers. In particular, cable television providers paid an annual rental rate that was proportional to the amount of the total space available for attachments occupied by that attacher. In contrast, the maximum rate for telecommunications providers was based on a more complicated formula that separately assigned unusable space (the parts of the pole that are underground and are providing ground clearance)⁴ and usable space to various parties attaching to the pole. Under the FCC's presumptive averages, which differ for urbanized and non-urbanized areas), the respective rate formulas assigned about 7 percent of annual pole costs to cable television attachment rates, 11 percent to telecommunications attachments in urbanized areas, and about 17 percent to telecommunications attachments in non-urbanized areas. The 2011 order changed the calculation of the maximum rate for telecommunications attachments with the intent of establishing parity between cable television and new telecommunications attachment rates.

In particular, the FCC established presumptive averages for (1) total pole height, (2) unusable space (underground plus ground clearance), (3) total usable space (pole height minus unusable space), (4) the amount of space required for cable television or telecommunications attachments, and (5) the number of parties attaching to the pole, including the pole owner. The top part of Table 1 lists these averages.

⁴ While the FCC (2001a ¶ 51) has determined that the 40-inch safety space separating communications and the electric attachments at the top of the pole is usable space occupied by the electric utility, some utilities argue that it should be part of the unusable space that is allocated among attaching parties.

Table 1: Annual Pole Costs Allocated to Cable and Telecommunications Attachments: Presumptive Averages

Pole Configuration (feet)		
Total Height	37.5	Presumptive Average
Underground	6	Presumptive Average
Clearance	18	Presumptive Average
Total Unusable	24	Underground + Clearance
Total Usable	13.5	Total Height - Unusable Space
Attachment Space	1	Presumptive Average
Attaching Parties		
Urbanized	5	Presumptive Average
Non-Urbanized	3	Presumptive Average
Percentage of Annual Cost		
Cable Rate	7.4%	Attachment Space/Total Usable
Old Telecom Rate		(Attachment Space + (2/3) Total Unusable/Attaching Parties)/Total Height
Urbanized	11.2%	
Non-Urbanized	16.9%	
New Telecom Rate		
Urbanized	7.4%	Old Telecom Rate x 0.66
Non-Urbanized	7.4%	Old Telecom Rate x 0.44

Prior to the 2011 order, the maximum cable rate allocated about 7 percent of annual pole costs to the annual rental rate, which is the presumptive average of 1 foot of space required for cable attachments divided by 13.5 feet of usable space. In contrast, the formula for the maximum telecom rates assigned the space required for the attachment (again with a presumptive average of one foot) plus two-thirds of an equal share of unusable space, and then divided this assigned amount by the pole height.⁵ Because the FCC’s “default” inputs presume that there are more attaching parties in urbanized areas (5 versus 3), there are more parties that share the unusable space, resulting in a lower rate (albeit still 50 percent higher than the cable rate) than in non-urbanized areas.⁶

⁵ Interestingly, this quite specific formula was specified by Congress in Section 703 of the 1996 Telecommunications Act.

⁶ For example, in non-urbanized areas, telecommunications attachers are allocated 5.33 feet of unusable space (2/3 x 24/3) plus the one foot required by their attachments. This amount (6.33 feet) is then divided by the pole height (37.5 feet) to produce an allocation of 16.9 percent of annual pole costs.

Table 1 also illustrates the mechanism the FCC devised to provide parity between the cable and telecommunications rates. In particular, the telecommunications formulas were revised by the use of additional factors for urbanized areas (0.66) and non urbanized areas (0.44), which when multiplied by the old telecommunications rate, produced an allocation of annual cost virtually identical to that of the cable rate (FCC 2011, ¶ 149).⁷

While the new telecommunications rate formula produces rates that are virtually identical to the cable rate when used with the presumptive averages in Table 1, the FCC's rules allow the use of alternative values based on reliable data.⁸ For example, if the average pole is higher than 37.5 feet (with unusable space remaining at 24 feet), then the formula would assign a lower percentage of annual costs to the new telecommunications rate. Conversely, if the formula was used with attaching party inputs lower than the presumptive averages, the new telecom rate would be higher than the cable rate.⁹

3.2. Just and Reasonable Rates for Incumbent Local Exchange Carriers

The rates charged for the ILECs' attachments are typically much higher than even the old telecommunications rates—on the order of 40 percent to 50 percent of annual pole costs (FCC, 2011 ¶ 216, note 651). Further, unlike cable television and new telecommunications companies, the FCC did not regulate the rates charged to ILECs prior to the 2011 order. Therefore, ILECs could not avail themselves of the FCC's dispute resolution processes. To the extent that ILECs found rates or other terms and conditions unsatisfactory, state civil courts were the venue for adjudicating such contract disputes.

In recognition of the fact that ILECs were major providers of broadband services, the FCC's 2011 order provided ILECs the right to just and reasonable rates and the FCC's dispute resolution facilities to challenge rates on the grounds they are not just and reasonable. However, rather than establish maximum rates (as apply for cable television and new telecommunications providers), the 2011 order instead establishes guidelines with the following features: (1) because of a preference for negotiated settlements, an ILEC would have to demonstrate an imbalance in bargaining power (typically manifested by imbalances in ownership shares (FCC 2011, ¶ 215); (2) the FCC expressed reluctance to overturn existing agreements, with the exception of situations in which the ILEC lacks the ability to terminate an existing agreement and obtain a new arrangement (FCC 2011, ¶ 216); (3) when the terms and conditions in a *new* agreement are

⁷ The DC Circuit recognized the FCC's intended rate parity in upholding the 2011 order's "decision to adopt telecom rates under §§ 224(d) & (e) that it has designed to be substantially equivalent to its already adopted cable rates." *Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183, 188 (D.C. Cir. 2013), *cert. denied*, 134 S. Ct. 118 (2013). More precisely, since 47 C.F.R. Section 224(e) does not define the costs to be allocated, the 2011 order refines cost to be 66 percent of fully allocated costs in urbanized areas and 44 percent of fully allocated costs in non-urbanized areas.

⁸ 47 C.F.R., Sections 1.1417 and 1.1418.

⁹ As discussed in greater detail below, some electric utilities classified their service territories as urbanized, but claimed that the average number of attaching parties was closer to 2.6 than 5. The use of the smaller amount in the new telecom formula allocates 12.6 percent of annual pole costs, thus producing rate that is 70 percent higher than the cable rate.

materially comparable to those in agreements with cable companies or new telecommunications companies, the cable rate (or new telecom rate) serves as a reference point for determining whether the rate charged by an electric utility is just and reasonable (FCC 2011, ¶ 217); and (4) when the terms and conditions in a *new* agreement are materially superior to those in agreements with cable companies or new telecommunications companies, the old telecom rate serves as a reference point for determining whether the rate charged by an electric utility is just and reasonable (FCC 2011, ¶ 218).

4. 2015 FCC Orders

4.1 Open Internet Order

The major focus of the Open Internet Order was defining fixed and mobile broadband offerings to end-use customers as broadband Internet access services (BIAS) and reclassifying their regulatory treatment from information services, which are subject to minimal regulation, to telecommunications services, which are now subject to certain provisions of Title II of the Communications Act. This reclassification implicated pole attachments in two ways. First, because the Open Internet Order applies some provisions of Title II, but not all of them, the Order made a definitive determination that the pole attachment provisions (Section 224) would continue to apply (FCC 2015b, ¶¶ 478-481), i.e., the FCC explained that it was not “forbearing” from these provisions. Second, because cable television companies provide broadband services, which arguably would make pole attachments subject to the new telecommunications rate rather than the cable rate, the Order warned that there was no intent that cable television companies be subject to higher rates, which could result if the new telecommunications formula in the 2011 order were mechanically applied with inputs that differed from the FCC’s presumptive averages (FCC 2015b, ¶¶ 482-484).

4.2 Order on Reconsideration

Following up on the concern it expressed in the Open Internet Order, the FCC modified the rule for telecommunications attachments to provide parity, regardless of number of attaching entities claimed by the pole owner. In doing so, the FCC noted that (1) electric utilities had often proffered numbers of attaching entities lower than the presumptive averages, thus producing new telecom rates higher than the corresponding cable rates (FCC 2015c, ¶ 23), as illustrated earlier and (2) observed that obtaining parity by charging such attachments at the higher new telecom rates could result in large, counterproductive rate increases for the large majority of pole attachments (FCC 2015c, ¶ 28).¹⁰

¹⁰ The FCC estimated that about 90 percent of cable and telecommunications attachments are charged at the cable rate. Interestingly, the rule defining the cable rate refers to attachments that “solely . . . provide cable service.” 47 U.S.C. Section 224(d)(3). While such language might suggest that attachments that accommodate cable company facilities that provide both cable service and Internet access service could be charged a different rate, the FCC has always specified that the cable rate be charged for such attachments (FCC 1998, ¶ 32) and (FCC 2015c, ¶ 7).

The 2015 Order on Reconsideration attains the intended parity between the cable rate and the new telecom rate by (1) introducing a new cost factor of 0.31 for use when the average number of attaching entities is exactly 2 (e.g., a power company and one other attacher) and 0.56 when the average is exactly four attachers, while maintaining the previous factors of 0.66 for five attachers and 0.44 for three attachers and (2) specifying that for a non-integer number of attaching entities, the cost factor is obtained by interpolating between integer values. For example, an average of 2.6 is 60 percent of the way between two and three attachers, so the resulting cost factor would be $0.31 + 0.6 \times (0.44 - 0.31) = 0.388$. When this result is multiplied by the 19.2 percent of cost assigned by the old telecom formula with 2.6 attachers, the resulting cost assignment is 7.4 percent.¹¹

4.3 Verizon Florida v. Florida Power and Light

Subsequent to the FCC's 2011 Pole Attachment Order, ILECs filed a number of formal complaints with the FCC's Enforcement Bureau after failing to reach agreement on rates in negotiations with electric utilities. To date, the Enforcement Bureau has produced a single order (FCC 2015a).¹² While providing additional details on the information it requires when ILECs challenge rates under an *existing* contract, the decision did not rule on the challenged rates. Instead, the Enforcement Bureau dismissed Verizon's complaint without prejudice, allowing it to file a new application addressing the deficiencies the Enforcement Bureau outlined in the Decision (FCC 2015a, ¶ 25): "Because the Bureau has not previously applied the 2011 *Pole Attachment Order*, and dismissal with prejudice could force Verizon to pay the relatively high Agreement rates for as long as its attachments remain on Florida Power's poles pursuant to the evergreen clause,¹³ we dismiss Verizon's Complaint without prejudice."¹⁴

As the initial decision on when rates charged to ILECs are just and reasonable, the Enforcement Bureau's order appears to provide some guidance for future complaints. First, the rates Verizon paid under the existing agreement were approximately four times the rates paid by cable and other telecommunication companies (FCC 2015a, ¶ 20). The fact that the order characterized the rates demanded from Verizon as "relatively high" suggests that differences of this magnitude may raise concerns that they are not just and reasonable.¹⁵ Second, the order observed Verizon's statement that the fact that Florida Power owns 90 percent of the joint-use poles places Verizon in an inferior bargaining position (FCC 2015a, ¶ 15). While not explicitly indicating that it

¹¹ For a 37.5 average pole with 24 feet of unusable space and one foot required for an attachment, the cost allocated by the old telecom formula (Table 1) would be $\frac{(1+\frac{2}{3})^{24(2.6)}}{37.5} = 19.2$ percent.

¹² Parties filing or responding to complaints can avail themselves of the Enforcement Bureau's mediation services, which have produced settlements in a number of matters.

¹³ This evergreen clause specifies that when parties do not reach a new agreement within six months, all terms and conditions of the existing agreement (including annual rental rates) remain in effect for existing attachments.

¹⁴ Verizon filed a new complaint shortly thereafter: *Verizon Florida v. Florida Power and Light*, Docket No. 15-73, File No. EB-15-MD-002, March 13, 2015.

¹⁵ In its discussion of just and reasonable rates for ILEC attachments, the FCC emphasized competitive neutrality between ILEC and their broadband competitors (FCC 2011, ¶¶ 217-218). Accordingly, ILEC rates that are multiples of what their competitors pay could violate competitive neutrality.

agreed with Verizon’s statement, the fact that the Enforcement Bureau invited Verizon to file a new complaint suggests that ownership disparities of this magnitude are indicative of relative bargaining power. Third, the order observed that Verizon’s lack of success in securing new rates “appears to be a case in which ‘an incumbent LEC genuinely lacks the ability to terminate an existing agreement’” (FCC 2015a, ¶ 25), quoting (FCC 2011, ¶216), which is the standard necessary to overcome the FCC’s general reluctance to question existing agreements.

On the other hand, the order appears to leave some issues in need of further clarification. First, in clearly distinguishing between new and existing agreements, the order suggests that there may be a different, more stringent standard for demonstrating that rates in an existing agreement are not just and reasonable. In particular, the order indicated that the old telecom rate, which the 2011 Pole Attachment Order established as a reference point for assessing whether rates demanded from ILECs are just and reasonable when there are material advantages in a joint-use arrangement (FCC 2011, ¶ 218), does not apply to existing agreements (FCC 2015a, ¶ 23).¹⁶ Alternatively, the order could be interpreted as suggesting a reduction in emphasis on the usefulness of the old telecom rates in resolving disputes:

Moreover, a reference point is not a rule. The Commission plainly stated in the *Order* that it was not adopting “rules governing incumbent LEC pole attachments, finding it more appropriate to proceed on a case-by-case basis” (FCC 2015a, ¶ 23), quoting (FCC 2011, ¶214).

Deemphasizing reference points in evaluating new agreements as well as distinguishing between new and existing agreements would seem to be inconsistent with the rationale for using the pre-existing telecom rate as a reference point (FCC 2011, ¶ 218):

We find it prudent to identify a specific rate to be used as a reference point in these circumstances because it will enable better informed pole attachment negotiations between incumbent LECs and electric utilities. We also believe it will reduce the number of disputes for which Commission resolution is required by providing parties clearer expectations regarding the potential outcomes of formal complaints, thus narrowing the scope of the conflict... Further, we find it more administrable to look to this rate, which historically has been used in the

¹⁶ From an economic perspective, there is little if any distinction between a disputed new agreement and the insistence by an electric company that the ILEC pay rates under an existing agreement that had been in effect for a number of years. For example, suppose negotiations over changes to an existing agreement between the parties had broken down at a point where the electric company had offered to reduce rental rates from \$35 to \$30, but no further and the parties had agreed to some changes in the other terms and conditions. Such a situation would appear to be functionally equivalent a new agreement, in which case the rate would be evaluated with reference to the old telecom rate.

Further, different treatments for new and existing agreements may inhibit, complicate, and/or lengthen the duration of the negotiating process. Since the upside for an electric company with superior bargaining power would typically be higher (approval of the existing rate versus the pre-existing telecom rate), the electric company may well be reluctant to offer and/or consider a new agreement.

marketplace, than to attempt to develop in this Order an entirely new rate for this context.

Most important, the order provides some indication of the information required to determine whether rates demanded under an existing agreement exceed a just and reasonable levels. As a general matter, the order explained (FCC 2015a, ¶ 24 (emphasis added)):¹⁷

Verizon concedes that it has received and continues to receive benefits under the Agreement that are not provided to other attachers, but it has not produced any evidence showing that the monetary value of those advantages is less than the difference between the Agreement Rates the New or Old Telecom Rates over time.

In light of the 2011 Pole Attachment's Order's emphasis on competitive neutrality in evaluating whether rates demanded for ILEC are just and reasonable, the Enforcement Bureau appears to be seeking information focused on how *differences* in agreements between ILECs on the one hand and other attaching parties, on the other hand, result in monetary advantages to the ILEC. Put another way, the Enforcement Bureau seems to be posing the following question: apart from the annual rental payment, how much more would the ILEC pay for items such as one-time make-ready charges if it were operating under a cable television or new telecommunications company agreement than it has to pay for those items under the existing joint use agreement. If the difference between the annual rental rates in the existing agreement and the annual rental rates paid by cable and new telecommunications companies exceed the extra payment for other items, then the demanded joint use rates are not just and reasonable.

In addition to suggesting an approach for determining possible monetary advantages in existing joint-use agreements, the order presented a number of specific items that may confer such an advantage, based on Florida Power and Light's filing (FCC 2015a, ¶ 21). These include the following: (1) an ILEC does not have to file a permit, pay an initial fee, or wait for approval; (2) an ILEC's attachments are not subject to inspections; (3) an ILEC's attachments are at the lowest point of available usable space; (4) the electric utility installed taller poles to accommodate the ILEC's attachments; (5) the joint-use agreement requires the electric utility to replace poles in certain circumstances; and (6) an ILEC is not required to purchase insurance.

5. Implementing the Verizon v. FPL Framework

Implementing the Enforcement Bureau's framework was a major issue in two complaints filed subsequent to the Verizon v. FPL order.¹⁸ The language of that order, which was presented

¹⁷ The order also noted that in addition to the possible existence of unique benefits, joint-use agreements differ from third-party agreements in that third parties have a statutory right to access utility poles, but ILECs do not (FCC 2015a, ¶ 21). This difference is irrelevant in evaluating whether annual rental rates are competitively neutral among broadband providers. Similarly, in rejecting an attempt by an electric utility to charge *higher* pole attachment rates to cable television companies after the 1996 Telecom Act provided a statutory right to access, the FCC (2001b, ¶ 53) properly concluded that whether access was voluntary or statutory was irrelevant to determining whether a rate was just and reasonable, thereby maintaining the rate produced by the cable formula as the maximum rate.

earlier, and the objective of competitive neutrality suggest an approach analogous to assessing prices charged for essential inputs in regulatory economics and/or antitrust contexts.

In the most general case, the principal of competitive neutrality (which is synonymous with competitive parity) amounts to the following proposition: when a particular input is essential (in this case pole attachments) for competition among providers of a downstream service (in this case broadband), then the prices charged for the essential input should neither favor, nor disfavor particular providers of the downstream service (including the owner of the essential input if it competes for the downstream service).¹⁹

While a competitively neutral outcome is readily apparent when there are no material differences between the terms and conditions of third-party and joint use agreements—namely that the same rental rate be charged—the extension of that principle when there may be differences follows from the reason why equal rates are competitively neutral in the special case of comparable terms and conditions. When comparable terms prevail, the total cost of providing broadband for each competitor is the sum of that competitor’s cost of providing broadband on the facilities in its network plus the rental rates charged by the utility. Since that latter cost would be the same under the FCC’s competitive neutrality principle, competition among broadband providers would be based on comparative network costs. Competitive neutrality when pole attachment agreements differ would likewise avoid distortions that would arise from a particular provider being advantaged by a more favorable pole attachment arrangement.

The following approach would satisfy this objective: (1) calculate the total amounts that the ILEC would pay for items other than annual rents under the disputed agreement versus agreements with third-party attachers over the time period expected for the agreement and (2) add the difference in these amounts to the annual rental amounts that the ILEC would pay if it were charged the same annual rate as the third parties, and (3) divide by the number of poles for which annual rents are charged over the duration at issue (pole-years) to obtain a unit rate.²⁰

The quantification of the unit costs of differential agreement terms can be illustrated by the effect of one-time up-front charges, which have been major considerations in pole attachment proceedings. In particular, some electric utilities have argued that unlike third-party attachers,

¹⁸ Verizon Florida v. Florida Power and Light, Docket No. 15-73, File No. EB-15-MD-002, March 13, 2015 and Verizon Virginia and Verizon South v. Dominion Virginia Power, Docket No. 15-190, File No. EB-15-MD-006, August 3, 2015.

¹⁹ Kahn and Taylor (1994, p. 227) describe the principal of competitive parity as follows:
[T]he purpose and effect of [the principles of competitive parity] are to ensure that the competition between the... supplier of the essential input and its actual or potential rivals is efficient. That is to say, rules framed in accordance with those principles should produce a distribution of responsibility for performing the contested function among the several rivals on the basis of their respective costs so as to minimize the total cost of supplying the contested service.

²⁰ Since pole attachments are an important input into the provision of broadband service, equalizing payments that would be incurred under the alternative contract arrangements is analogous to equalizing prices for essential inputs, as long discussed in the regulatory economics and antitrust literature (Kahn and Taylor (1994); Tardiff (2013); Weisman, 2014).

joint use agreements have allowed ILECs to avoid permitting and/or engineering fees when establishing new attachments, and in at least in some cases, rearrangement costs in the form of moving the facilities of other parties or even perhaps replacing an existing pole to provide for sufficient space for the attachments. For example, suppose (hypothetically) that (1) a third-party agreement required third parties paid a \$10 fee for each new attachment, while the electric utility did not charge the ILEC for the costs it incurs to establish new attachments,²¹ (2) the third-party agreement required payment for make-ready work, while a joint use agreement had no make ready charges (even if make-ready work were required), (3) make ready costs are needed for 2.5 percent of all new attachments, (4) make-ready costs average about \$800 per new attachment, and (5) new attachments are 2 percent of the attachments for which the ILEC pays the annual rental charge, e.g., if the ILEC had attachments on 10,000 joint use poles, 200 of these are new attachments in a given rental year. For purposes of this example, these are the only material differences between the respective agreements. Table 2 summarizes the example.

Table 2: Calculating the Monetary Benefit Associated with One-Time Charges: Illustrative Example

% new attachments	2%
Permit fee	\$10.00
% rearranged	2.5%
Extra rearrangement costs	\$800.00
Cost/new attachment	\$30.00
Cost adder	\$0.60

Each new attachment incurs a permit fee charge of \$10. In addition, 2.5 percent of these attachments require make-ready work costing an average of \$800.²² Therefore, the total cost for new attachments is \$30 ($\$10 + 0.025 \times 800$). Because there are no charges for new attachments under the hypothetical joint use agreement, the ILEC avoids a total of \$0.60 per attachment ($0.02 \times \30) that it would otherwise pay if it were operating under the terms of a third-party agreement. The final determination is whether the difference between the annual rental rate in the joint use agreement and the annual rental rate paid by third parties is more or less than this cost adder. If the difference in annual rental rates exceeds the adder, then the rate demanded by the electric utility is inconsistent with competitive neutrality and accordingly not just and reasonable.

Some electric utilities present estimates suggesting that the terms of joint use agreements are much more advantageous to ILECs than the cost adder shown in Table 2. For example, these

²¹ This example assumes that the electric company is performing permitting functions, but not charging the ILEC for these activities. If the ILEC is performing these (or equivalent) functions, then there would be no cost savings to reflect in a cost adder.

²² Again, this example assumes that there are no make-ready charges under the joint use agreement. To the extent that the ILEC actually pays for make-ready work, some or all of these costs would be offset.

companies have presented estimates consistent with the assumptions that (1) because of joint uses agreements, they have designed joint use poles to always have sufficient space to accommodate ILEC attachments with no need for any subsequent make-ready work and (2) in contrast, when third-parties need to attach to a utility’s poles, it is necessary to replace a pole designed solely to accommodate the electric company’s attachments with a taller stronger pole that can accommodate other parties. Further, rather than produce an amount that can be added to an annual rental rate, the end result is a total for the entire number of poles for an indeterminate number of years. Table 3 presents information that illustrated the electric company’s calculations.

Table 3: Alternative Calculations of Monetary Benefits in a Joint-Use Agreement

	Electric Company Calculation	Adjusted Calculation
% new attachments	100%	20.0%
Permit fee	\$10.00	\$10.00
% rearranged	100.0%	2.5%
Extra rearrangement costs	\$4,500.00	\$800.00
Cost/new attachment	\$4,510.00	\$30.00
Poles	50,000	50,000
Total Advantage	\$225,500,000	\$300,000
Joint Use Rental Revenue		\$17,500,000
Third-Party Rental Revenue		\$5,500,000
Rental Revenue Difference		\$12,000,000

The first Column of Table 3 summarizes the electric company’s calculations. Since the calculation is intended to measure the total advantages the ILEC purportedly has received, advantages are calculated for the full stock of existing poles, so 100 percent of the poles that pay an annual rental fee are assumed to have paid up-front fees.²³ These charges consist of a permit fee of \$10, and extra rearrangement costs of \$4,500 dollars for uprooting a shorter pole and replacing it with a larger pole, inclusive of engineering, and inspection activities. Accordingly each of the 50,000 poles to which the ILEC is attached is assumed to have avoided \$4,510 that would have been paid by a third-party attacher, for a total advantage of \$225.5 million.

²³ While the time period for evaluating whether the difference between new rates and third-party rates exceed the monetary advantages of a joint-use agreement would be the forward-looking period for which the new rates would be expected to apply, electric companies have calculated what they claim to be monetary advantages over historical periods. This calculation is consistent with an interpretation that the FCC is seeking both historical and forward-looking information (FCC 2015a, ¶ 24): “Verizon concedes that it received and continues to receive benefits under the Agreement that are not provided to other attachers, but it has not produced any evidence showing that the monetary value of those advantages is less than the difference between the Agreement Rates and the New or Old Telecom Rates over time.”

The inputs into the electric company's calculation are inconsistent with the actual experience of accommodating third-party attachments that was summarized in Table 2, and shown in the last column of Table 3. That is, make-ready work is required on far fewer than 100% of the poles, and when it is the extra costs are closer to \$800 than \$4,500. Therefore, as previously illustrated in Table 2, the ILEC would pay an average of about \$30 in one-time charges per new attachment under a third-party agreement. Finally, in order to determine whether the "monetary value of those advantages is less than the difference between the Agreement Rates the New or Old Telecom Rates over time," the time period over which advantages are calculated would almost certainly be shorter than the duration needed to install the full stock of poles to which the ILEC is attached. For example at an annual rate of 2% new attachments per year, a 10-year contract duration would result in new attachments percentage of 20 percent, as shown in the first row of Table 3. Therefore, the last column of Table 3 shows a total advantage of \$300 thousand ($50,000 \times 0.2 \times \30).

The total advantage over the duration at issue would then be compared to the difference in annual rental payments under the joint use and third-party agreements. For example, if the annual rental rate were \$35 under the joint-use agreement and \$11 under a third-party agreement, rental payments for 50,000 poles over 10 years would \$17.5 and \$5.5 million, respectively. The \$12 million difference is well in excess of the monetary value of the advantages. Accordingly, if the period in question were an historical period, the conclusion would be that the ILEC more than paid for the advantageous make-ready terms in the joint use agreement. If the period were forward-looking, then a \$35 annual rental rate would be well in excess of a competitively neutral, just and reasonable rate.

6. Conclusion

With the objective of facilitating competition in the provision of broadband services, the FCC has implemented rules designed to rationalize annual pole attachment rental rates in states subject to its jurisdiction. While the most recent orders have adjusted the calculation of maximum rates for new telecommunications companies to provide the parity with rates chargeable to cable television providers articulated in an earlier order, more specific guidance on how rates for ILEC attachments emerging from the FCC's dispute resolution processes appears to be a subject in need of further clarification.

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