Reply Comments of the International Center for Law & Economics, In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment

WC Docket No. 17-84

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I. Introduction

We thank the Federal Communications Commission (FCC) for the opportunity to offer these reply comments on the Further Notice of Proposed Rulemaking (FNPRM) in the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment.

Ensuring that broadband connectivity is deployed effectively and efficiently to all Americans is among the FCC's most important priorities. As Chair Rosenworcel has observed:

> We are about to invest billions in high-speed infrastructure nationwide. It's essential that we have policies in place that make sure these dollars are used in a cost-effective way and that pole attachment policies facilitate, rather than impede, broadband buildout.[1]

The Infrastructure Investment and Jobs Act (IIJA) allocated $65 billion to help the Commission and the National Telecommunications and Information Administration (NTIA) facilitate further deployment and adoption.[2] Private investment in broadband networks also continues to grow, with $2 trillion spent since 1996, including $86 billion in 2021 alone.[3]

This attention and funding could be wasted, however, due to roadblocks that stand in the way of deployment and threaten to reduce the efficacy of federal investment. Inflation remains at very high levels, which diminishes the practical reach of IIJA funds. Moreover, NTIA has signaled its interest in promoting policy goals that may divert some funding away from targeting the needs of the

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[1] *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment ("FNMRPM")*, FCC 22-20 (Mar. 16, 2022) https://docs.fcc.gov/public/attachments/FCC-22-20A2.docx.

[2] Drew Clark, *Commerce Department's NTIA Releases Details for Funds Distributed Under IIJA*, BROADBANDBREAKFAST (May 13, 2022) https://broadbandbreakfast.com/2022/05/commerce-departments-ntia-releases-details-for-funds-distributed-under-iija.

[3] *2021 Broadband Capex Report*, USTELECOM (Jul. 18, 2011) https://ustelecom.org/research/2021-broadband-capex-report.

unserved.[4] Given this backdrop, it is crucial that the Commission exercise its authority to remove barriers to deployment.

In this proceeding, we believe that means seeking reform and clarification of inefficient pole-attachment rules that lead to cost overruns and deployment delays.[5] The docket includes numerous comments that document various ways utility-pole owners sometimes shift costs onto attachers.[6]

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[4] Kristian Stout, *To Close the Digital Divide, Broadband Infrastructure Funds Must Be Spent Efficiently*, TRUTH ON THE MARKET, (May 27, 2022) https://truthonthemarket.com/2022/05/27/to-close-the-digital-divide-broadband-infrastructure-funds-must-be-spent-efficiently.

[5] NCTA notes in its petition that, in hard-to-connect rural areas, as much as 25% of a project's cost could be attributable to pole-attachment disputes. *Petition of NCTA for Expedited Declaratory Ruling, In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84 (Jul. 16, 2020), at 5-9, available at https://www.ncta.com/sites/default/files/2020-07/071620_17-84_NCTA_Petition_for_Declaratory_Ruling.pdf. Pole owners dispute this number. For example, AT&T says that only 0.35% of requests it received resulted in the need for replacement. Robert Vitanza, David Chozempa, & David Lawson, *Comments of AT&T (Corrected)*, AT&T ("AT&T Comments") at 7-8 (Jun. 29, 2022) https://www.fcc.gov/ecfs/search/search-filings/filing/ NCTA, on the other hand, says about 8% of requests might need pole replacement. Ultimately, this is an empirical question the Commission needs to resolve. That said, the IIJA and BEAD programs are overwhelmingly focused on those households that are underserved and who are, by definition, more expensive to connect. Thus, it can be possible both for AT&T to be correct *generally* that pole-attachment disputes are rare, as well as for NCTA to be correct *specifically* about the extent of the problem in rural areas when pole replacements are needed.

[6] See, *e.g.*, Thomas Cohen, *Re: Ex Parte Filing of the American Cable Association on Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84*, KELLEY DRYE & WARREN LLP (Mar. 26, 2018) https://www.fcc.gov/ecfs/file/download/ACA%20Poles%20Ex%20Parte%203-26-18%20(FINAL).pdf?folder=1032633296362 ("…utilities often fail to provide any explanation for the significant increases in project costs on the final bill and do not provide the information necessary to challenge the reasonableness of the make-ready charges. Mr. Shawn Beqaj (Armstrong) provided examples where a utility charged a new attacher for the correction of preexisting safety violations caused by others or for overdue improvements designed to bring poles into compliance with utility regulations"); Kris Anne Monteith, *Declaratory Ruling By the Chief, Wireline Competition Bureau*, FEDERAL COMMUNICATIONS COMMISSION, (Jan. 19, 2021) https://www.fcc.gov/ecfs/search/search-filings/filing/106282945908521 ("A California fiber ISP whose mission is to bring fiber broadband networks to rural and remote areas experienced serious time delays and a large increase in project expenses when an investor-owned utility revealed that hundreds of its poles in some very rural and remote areas did not have test and treat survey inspections in a decade or more. This caused substantial delays in bringing broadband service to unserved communities during the COVID-19 pandemic. Further, this high pole failure meant that the project expense forecasts were too low, and so the return on investment went from 7-9 years upward to a level that made the project almost uneconomical."); Matthew M. Polka, Thomas Cohen, & Ross J. Lieberman, *Comments of the American Cable Association on the Notices of Proposed Rulemaking*, AMERICAN CABLE ASSOCIATION (Jun. 15, 2017) https://www.fcc.gov/ecfs/file/download/ACA%20Infrastructure%20NPRM%20Comments%20(FINAL).pdf?folder=1061666240361 ("…an investor-owned utility in Minnesota charged Mediacom to fix violations on poles to which Mediacom had been attached for 20 years caused by the utility moving its equipment during pre-make-ready inspections for a new attacher."); Rick Chessen, Neal M. Goldberg, Steven F. Morris, & Maria Browne, *Petition for Expedited Declaratory Ruling*, NCTA – THE INTERNET & TELEVISION ASSOCIATION (Jul. 16, 2020) https://www.ncta.com/sites/default/files/2020-07/071620_17-84_NCTA_Petition_for_Declaratory_Ruling.pdf ("ComEd refused to permit Crown Castle to attach to poles that had been 'red tagged' by ComEd until Crown Castle first pays to replace or reinforce those red tagged poles, even though the conditions that caused the red tag status existed prior to and are unrelated to Crown Castle's proposed attachment."); Christopher L. Shipley & Andrew Mincheff, *Comments of INCOMPAS*, INCOMPAS (Jun. 27, 2022) https://www.fcc.gov/ecfs/search/search-filings/filing/10629168805842 ("INCOMPAS' member IdeaTek, which operates in rural Kansas…has been allocated 100 percent of the replacement costs on applications that require make-ready and pole replacement, with no consideration given to the enrichment and benefit this confers to the utility or the current value or condition of the pole.")

What's more, several different types of pole owners are subject to FCC jurisdiction in this area, multiplying the problems across many different bargaining parties, including providers such as incumbent local exchange carriers, privately owned public-utility providers, and investor-owned poles.[7]

The aim of pole-attachment rules should be to equitably assess costs in a way that ensures the attachment process does not inefficiently serve to extract rents. As the Commission notes, the Wireline Bureau focused on these potential inefficiencies when it "clarif[ied] that it is unreasonable and inconsistent with Section 224 of the Communications Act, the Commission's rules, and past Commission precedent, for utilities to impose the entire cost of a pole replacement on a requesting attacher when the attacher is not the sole cause of a pole replacement."[8] In short, a rule that unilaterally imposes replacement costs on a given attacher—while potentially expedient from an administrative perspective—is unlikely to provide an economically optimal outcome. At the same time, depending on the condition of the pole, shifting all or most costs onto the pole owner may also be inadvisable.

With that in mind, a strict "sole cause" standard for determining the resolution of pole replacements is likely inefficient. As we discuss below, such standards can lead to hold-up and hold-out problems that negatively affect broadband deployment. We believe the current formula can be refined to ensure that deployment funds aren't unjustifiably captured as rents. As others in the docket have maintained,[9] the formula should be adjusted to ensure that the allocation of pole-replacement costs more closely reflects the incremental costs and benefits to each of the parties.

In particular, the allocation should account for the depreciated value of the pole being replaced, as well as the incremental costs and benefits of larger and newer poles to pole owners, incumbent attachers, and anticipated future attachers, as well as the incremental costs to pole owners of early replacement. The remainder of this comment summarizes these considerations and offers some broad recommendations.

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[7] See *Public Notice: States that Have Certified that They Regulate Pole Attachments*, FEDERAL COMMUNICATIONS COMMISSION (Mar. 19, 2020) https://docs.fcc.gov/public/attachments/DA-20-302A1_Rcd.pdf. Note that this only applies across the 23 states that have not certified that they regulate pole attachments. *Id.*

[8] FNMPRM ¶ 2

[9] See, *e.g.*, *Re: WC Docket No. 17-84 – Accelerating Wireline and Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, CONNECT THE FUTURE COALITION (Jun. 27, 2022) https://files.fcc.gov/ecfs/download/e595c759-afb8-4e7d-a10f-35373238e59f?orig=true&pk=cb77b2ec-1a58-dbc6-139b-ad192cfd5d9b; Elizabeth Andrion & Maureen O'Connell, *Comments of Charter Communications Inc.*, Charter Communications (Jun. 27, 2022) https://files.fcc.gov/ecfs/download/355be4d0-4729-48d4-807a-640c5645c3e9?orig=true&pk=cb77b2ec-1a58-dbc6-139b-ad192cfd5d9b; James E. Dunstan, *Comments of TechFreedom*, TECHFREEDOM (Jun. 27, 2022) https://files.fcc.gov/ecfs/download/4a3c5f41-de6e-4da5-a973-fd18d2ef9f39?orig=true&pk=cb77b2ec-1a58-dbc6-139b-ad192cfd5d9b.

Before discussing our view of how to amend the pole-replacement-cost formula, we would like to express again our support for the idea commonly voiced in the docket that pole-replacement disputes should be placed on the Accelerated Docket. As many commenters note in the record, delays in resolving pole disputes can seriously delay or entirely jeopardize some deployment projects.[10] Fundamentally, the focus of this proceeding—as well as most of the federal funding that has been devoted toward expanding broadband—regards how best to connect locations that are far out on the cost curve. Delays are very costly and reduce the number of households served. Encouraging disputes to be settled in a timely fashion can only help to close the digital divide.

II. Refining the Pole-Replacement Formula

In the FNPRM, the Commission:

> seek[s] additional information and documents that will better substantiate the economic, legal, and practical implications of potentially revising our rules governing cost sharing. We are particularly interested in additional information and analyses that expand the economic arguments made by utilities and attachers, including those addressing their respective economic incentives and how our rules do or do not effectively align them.[11]

The analysis below expands on our previous comments in the matter to help answer this question.

A. The Existing Approach

The pricing of pole attachments is relatively straightforward when the pole has sufficient capacity to add new attachments. It is only when a proposed attachment requires a pole replacement (e.g., because the existing pole does not have sufficient capacity) that pricing becomes more complex.

For example, consider a pole that is currently at capacity with 10 attachments, and a company asks to add an 11th attachment. This would require the pole owner to replace the existing pole with a larger pole to accommodate the new attachment. The fundamental (and economically intractable) question raised by this scenario is how to allocate the fixed costs of this replacement efficiently.

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[10] See, *e.g.*, Ross J. Lieberman, Brian Hurley, Thomas Cohen, & Edward A. Yorkgitis Jr., *Comments of ACA Connects on Second Further Notice of Proposed Rulemaking*, ACA CONNECTS (Jun. 27, 2022) https://files.fcc.gov/ecfs/download/085b9a94-c9a3-41a0-975e-dbdd4bc7969f?orig=true&pk=cb77b2ec-1a58-dbc6-139b-ad192cfd5d9b; Randolph J. May, Seth L. Cooper, & Andrew K. Magloughlin, *Comments of the Free State Foundation*, FREE STATE FOUNDATION (Jun. 27, 2022) https://freestatefoundation.org/wp-content/uploads/2022/06/FSF-Comments-%E2%80%93-Accelerating-Wireline-Broadband-Deployment-by-Removing-Barriers-to-Infrastructure-Investment-062722.pdf; Steven Morris, Victoria Goldberg, Maria Browne, & David M. Gossett, *Comments of NCTA – The Internet & Television Association*, NCTA (Jun. 27, 2022) https://files.fcc.gov/ecfs/download/9391ec57-88c4-43c1-8f5c-b8af2b23a626?orig=true&pk=cb77b2ec-1a58-dbc6-139b-ad192cfd5d9b; Matthew M. Polka, Ross J. Lieberman, Thomas Cohen, Edward A. Yorkgitis Jr., & J. Bradford Currier, *Comments of the American Cable Association on the Notices of Proposed Rulemaking*, AMERICAN CABLE ASSOCIATION (Jun. 15, 2017) https://www.fcc.gov/ecfs/file/download/ACA%20Infrastructure%20NPRM%20Comments%20(FINAL).pdf?folder=1061666240361 ("MetroNet...has been waiting more than a year for approval of applications for 160 pole attachments because the one employee responsible for reviewing applications was out on extended medical leave.")

[11] FNPRM ¶ 29.

Which of the 12 parties—the pole owner, the 10 current attachers, and the prospective new attacher—should bear the pole-replacement costs, and how much should each bear?

There is no economically efficient method to allocate fixed costs across multiple products or multiple consumers; any allocation scheme is, therefore, ultimately arbitrary. In the absence of regulations or established industry practices, the allocation would be negotiated, with the cost distribution based on the parties' relative bargaining power.

The current rule under Section 224 is that the "cost causer" pays to replace the pole. In practice, this generally means that the last attacher pays. In some ways, this makes sense. It can be argued that the pole owner has no economic reason to replace the pole prior to termination of its useful life; indeed, this argument is commonly cited in the docket.[12] It's also possible that the incumbent attachers receive no additional direct benefit from a new pole (except, perhaps, some marginal utility in a stronger/upgraded pole having a longer life). Therefore, because the new attacher receives most of the immediate and direct benefit of the new pole, it can be argued that it is the party that should bear all the costs of replacement.

As we discuss below, however, while there is some truth to these assertions, they also miss several relevant considerations. A full analysis needs to take account of the fact that, in many cases, pole owners do, in fact, stand to benefit from pole replacements, even before the end of their useful life. Moreover, we should consider the benefits that pole owners and incumbent attachers receive when a near end-of-life pole is replaced. We conclude this section with potential factors to include in a new cost formula for pole attachments.

B. Hold-up and Hold-out Problems Can Reduce Deployment

The last-attacher-pays model may encourage both hold-up and hold-out problems that can obscure the economic reasons a pole owner would otherwise have to replace a pole before the end of its useful life.[13] For example, a pole owner may anticipate, after a recent new attachment, that several

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[12] See, *e.g.*, AT&T Comments, *supra*, note 5 at 3 ("Third, [the proposed formula change suggested by NCTA] does not reflect the true value of a still viable pole that "but for" the attachment request, would have many more years of useful life, or the costs that premature pole replacement imposes on the pole owner. Benefits some argue a pole owner receives from a pole replacement it did not initiate are speculative and incidental and hence do not add significant value to the pole owner's business. And those incidental benefits would be dwarfed by the increased pole replacement and operational costs imposed on the pole owner.")

[13] For more on hold-up problems, see, e.g., Benjamin E. Hermalin, *Holdup: Implications for Investment and Organization*, 52 CAL. MGMT. REV. 132-137 (2010) ("Consider two entities that are contemplating trade with each other over time. In many such situations, one or both entities will make relation-specific investments; that is, investments that yield returns (or significantly greater returns) only through the trading relation. For example, … a manufacturer might invest so as to produce a component specific to another firm's product. In each of these instances, the investing party is vulnerable to holdup: … seeing how locked-in the component manufacturer is, the component purchaser might seek to trigger renegotiation leading to a lower price per unit. In each of these cases, some of the value being created by the investing party winds up being captured by the other party"). For purposes of this comment, *hold up* refers to a pole owner refusing or delaying an

other companies are also interested in attaching. In this scenario, it may be in the owner's interest to replace the existing pole with a larger one to accommodate the expected demand. The last-attacher-pays arrangement, however, would diminish the owner's incentive to do so. The owner could instead simply wait for a new attacher to pay the full cost of replacement, thereby creating a hold-up problem that has been documented in the record.[14] This same dynamic also would create an incentive for some prospective attachers to hold-out before requesting an attachment, in expectation that some other prospective attacher would bear the costs.

The complexity surrounding how to allocate pole-replacement costs is compounded in the case of a pole that already requires replacement (e.g., because the pole does not comply with current safety and utility construction standards, has been "red-tagged" as a candidate for replacement, or is at the end of its useful life).[15] In these circumstances, the pole owner, a prospective new attacher, and, possibly, existing attachers would each benefit from the pole replacement in order to ensure continued rents and uninterrupted equipment operation.

In these cases, a last-attacher-pays rule makes less economic sense. In particular, it raises a further hold-up problem in which a pole owner is encouraged to defer replacement as long as possible, with the goal of reaching capacity on the pole, so that the owner shifts the replacement cost to the last attacher. This provides a windfall to the pole owner at the expense of the last attacher. It also provides a windfall to subsequent attachers, who receive the benefits of additional capacity but bear none of the costs associated with adding that capacity.

For example, in a recent complaint filed before the FCC, it is alleged that:

> ComEd refused to permit Crown Castle to attach to poles that had been 'red tagged' by ComEd until Crown Castle first pays to replace or reinforce those red tagged poles, even though the conditions that caused the red tag status existed prior to and are unrelated to Crown Castle's proposed attachment.[16]

In this case, the potential hold-up occurred where ComEd knew it needed to replace poles that had been "red tagged." But because the current rules would require the next attacher to pay the full cost

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attachment in order to negotiate more favorable terms for itself; *hold out* refers to a prospective attacher delaying an attachment in anticipation of more favorable terms for itself. This distinction is somewhat arbitrary but is used for ease of exposition.

[14] See, for example, Patricia D. Kravtin and Edward J. Lopez, *An Economic Study of the Barriers Erected by Current Utility Pole Replacement Practices and of Policy Prescriptions to Better Align Incentives and Promote Broadband Expansion*, Submitted in *The Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, Federal Communications Commission*, WC Docket No. 17-84 (Jun. 27, 2022).

[15] A "red-tagged" pole is one found to be noncompliant with safety standards and placed on a utility's replacement schedule. *2018 Wireline Infrastructure Order*, 33 FCC Rcd at 7766, n.450.

[16] *Crown Castle Fiber LLC v. Commonwealth Edison Co.*, Pole Attachment Complaint for Denial of Access, ¶¶ 121-134, FCC Proceeding No. 19-169, Bureau ID No. EB-19-MD-004 (filed June 19, 2019).

of replacement, ComEd had an incentive to delay in order to offload some of the costs of replacement.

Similarly, the Schools, Health & Libraries Broadband Coalition alleged that:

> A California fiber ISP whose mission is to bring fiber broadband networks to rural and remote areas experienced serious time delays and a large increase in project expenses when an investor-owned utility revealed that hundreds of its poles in some very rural and remote areas did not have test and treat survey inspections in a decade or more. This caused substantial delays in bringing broadband service to unserved communities during the COVID-19 pandemic. Further, this high pole failure meant that the project expense forecasts were too low, and so the return on investment went from 7-9 years upward to a level that made the project almost uneconomical.[17]

Here, we see the pole owner's incentive to delay inspecting and treating poles remains, at the margins, even where it was not obviously driven by a unilateral goal to hold-up. The fact that the ISP's costs exploded far beyond their projections suggests the strategy paid off for the pole owner.

Of course, this is not absolute: a pole owner that allows all its stock to deteriorate until it is unusable will face numerous problems of its own making, including declining rents and increased costs stemming from emergency repairs and replacements. But what matters is the marginal incentive, where pole owners have something to gain by allowing replacements to wait relatively longer and therefore to shift some of the cost to a new attacher.

The burden of pole-replacement costs may not be prohibitive for large attachers that can spread their costs out over a region. But in hard-to-connect, high-cost areas, these incentives are likely to impose a drag on broadband deployment. They may even doom some projects in rural areas and those with low-population density, where the higher costs of deployment already sharpen the incentives to cut expenses.

C. Bargaining Power and Pole-Replacement Negotiations

Under Section 224 of the Communications Act, the FCC is authorized to review the costs of pole attachments to ensure that they are "just and reasonable."[18] The Wireline Bureau has found that it is unreasonable to "impose the entire cost of a pole replacement on a requesting attacher when the

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[17] *Comments of the Schools, Health & Libraries Broadband (SHLB) Coalition*, in The Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, FEDERAL COMMUNICATIONS COMMISSION, WC Docket No. 17-84 (Jun. 27, 2022).

[18] 47 U.S.C. § 224 (2018).

attacher is not the sole cause of the pole replacement."[19] Section 224, however, also permits owners to deny pole access on a nondiscriminatory basis when there is insufficient capacity.[20]

This provision puts the pole owner in a superior bargaining position. Once attachers commit to project- or asset-specific investments in broadband deployment, those investments depend largely on access to poles. In many cases, attachers cannot seek out alternative pole networks. They instead usually face enormous costs and delays with underground build options.[21]

Moreover, pole owners are in a superior informational advantage. Owners have private information about their underlying cost structures. They also have a better understanding of their existing pole plant and whether a new attachment request could be accommodated with or without pole replacement. In addition, pole owners have access to publicly available information about the details of attachers' pre-investments, especially those underwritten by government funding.

These factors—the owner's ability to deny attachment requests and its superior information—provide owners with a better bargaining position vis-à-vis prospective attachers, such that owners can impose "take it or leave it" offers on prospective attachers. Indeed, pole owners commented in the docket that they intend to use that superior bargaining position, if necessary.[22]

But attachers' inferior bargaining position reduces their incentives to deploy in areas with capacity-constrained poles. If this rulemaking's purpose is to foster increased broadband deployment, any rules must enhance both the incentives for pole owners to expand capacity and the incentives for prospective attachers to use the expanded capacity.

Any reconsideration of pole-attachment rules must therefore take into account that the market for poles is both highly regulated and that it operates with fairly sharp bargaining disparities. It would be difficult to estimate the actual price for pole replacements in a purely free market without regulatory intervention, but it would necessarily be somewhere in between the total cost to replace a pole and the new rental price that attachers are charged, together with make-ready costs. The refusal rights that pole owners enjoy under Section 224 need to be factored into any change, which could

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[19] Declaratory Ruling, *In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, at para. 3 (Jan. 19, 2021), available at https://docs.fcc.gov/public/attachments/DA-21-78A1.pdf.

[20] 47 U.S.C. §224(f)(2).

[21] *See, e.g.*, Scott Beyer, *We All Want to Put Those Damned Power Lines Underground*, GOVERNING (Feb. 2, 2022) https://www.governing.com/next/we-all-want-to-put-those-damned-power-lines-underground. See also, *City of Portland v. United States*, 969 F.3d 1020 (9th Cir. 2020), ("we believe that a requirement that all wireless facilities be deployed underground would amount to an effective prohibition given the propagation characteristics of wireless signals"), https://www.supremecourt.gov/DocketPDF/20/20-1354/172634/20210322175112759_Appendix.pdf.

[22] AT&T Comments, *supra*, note 5 at 2 ("First, a rule forcing pole owners to pay attachers' legitimate pole replacement costs will create a disincentive to replace poles, hindering broadband deployment. Pole owners cannot be forced to replace poles with insufficient capacity, and if forced to bear attachers' replacement pole costs, will start denying requests to attach to those "at-capacity" poles. If that happens, the extra pole capacity for broadband and other deployments that is currently created when a pole is replaced would cease to exist, or at best, be substantially reduced or delayed.")

mean that, in practice, the optimal price under the current regulatory regime actually ends up being closer to the status quo anyway.

But that outcome would not provide attachers with adequate incentives to achieve an economically efficient outcome. To create the right incentives, the Commission might have to look to other parts of its authority over pole attachment, including in the way that it sets reasonable rental rates.

D. Rethinking the Pole-Attachment Formula

To foster economic efficiency—that is, the allocation of resources to their highest-valued use—upfront make-ready charges for pole replacement should be limited to pole owners' *incremental* cost, as opposed to the gross, total out-of-pocket costs charged under current regulations. For example, because all poles must eventually be replaced, an early replacement does not impose an *additional* cost. Instead, it *shifts* the timing of the replacement. Thus, the incremental cost of a pole replacement is the cost of replacing the pole earlier than anticipated, not the total cost of the replacement pole.

One straightforward approach to deal with this incremental cost would be to treat the remaining net book value (i.e., the depreciated value) of the pole being replaced as a measure of the incremental costs associated with a replacement.[23] For example, assume a 35-foot pole with a remaining book value of $1,500; the cost of replacing it with a new 35-foot pole would be $3,250, and the cost of replacing it with a 40-foot pole would be $3,500. Under this approach, regardless of the cost of the replacement pole, the maximum incremental cost of replacement would be the remaining book value of $1,500, rather than $3,250 or $3,500.

One possible scenario is that the pole owner would be forced to increase the pole's size, where they may have only planned to replace it with a pole of similar size. In this case, new attachers should also be required to assume their share of the new costs associated with the increased capacity, less some amount to account for the additional revenue the pole owner can realize. Utility poles come in five-foot increments and attachments typically require one foot of space. Thus, a replacement pole that is five feet taller than the pole it replaces would have capacity for five more attachments: one for the company requesting the replacement-inducing replacement plus four more. This additional space can be used for the owner's own services, or rented to future attachers and provide additional income to the pole owner.[24]

One straightforward approach to dealing with this incremental cost would be to allocate the cost of the extra capacity across that additional capacity. Using the example above, assume installing a 40-foot pole would cost $250 more than a 35-foot pole. Thus, the quasi-incremental cost of replacement

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[23] See Kravtin and Lopez, *supra* note 15.

[24] *Second Notice of Proposed Rulemaking on Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84 ¶ 24, FEDERAL COMMUNICATIONS COMMISSION (Mar. 18, 2022), https://docs.fcc.gov/public/attachments/FCC-22-20A1.pdf (discussing the allocation of the costs of pole replacements and pole adjustments). ¶ 18

associated with each new attacher would be $50.[25] This can be thought of as the minimum incremental cost of replacement.

$50	<	$1,500	<	$3,250	<	$3,500
Quasi-incremental		Net book value		Replacement cost		

This example highlights the challenges in negotiating the "right" allocation of pole-replacement costs—there are a wide gaps among parties' positions. On the one hand, the attacher who triggers a pole replacement seeks to get close to the low end of the spectrum and pay a cost that reflects the incremental cost of its attachment to the replaced pole. On the other hand, the pole owner seeks to get close to the upper end of the spectrum that reflects its cost of the replacement triggered by the last attacher. By providing the pole owner the right to refuse attachments on capacity-constrained poles, Section 224 does nothing to close this gap, but shifts the relative bargaining power in favor of the pole owner.

Some commenters have observed, however, that the relevant baseline for these negotiations is not between having access to poles and having no access, but between having access to poles and an attacher having to build out its own infrastructure.[26] For fairly obvious reasons, the public interest would not be served by allowing every attacher to build infrastructure. This would wastefully duplicate infrastructure and place excessive demands on rights-of-way. Further, it is important to remember that, although pole owners derive some benefit from new poles, determining how much benefit is not a straightforward calculation. Some portion of those benefits are necessarily speculative (they require finding new attachers to generate revenue), while the costs of diverting resources to perform the pole replacement are immediate.[27]

Thus, while the cost formula should be revised such that a new attacher is not unilaterally responsible for all replacement costs, it should be done with care and should incorporate multiple factors, including:

- The depreciated value of the pole being replaced—the last attacher should not bear the full costs of replacing a pole that is out of compliance with current safety and utility construction standards, has been "red-tagged," or is at the end of its useful life;

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[25] We say *quasi*-incremental costs because, economically speaking, the incremental cost to each additional anticipated attacher is $0, as the cost of pole replacement would be a sunk cost at the time of attachment.

[26] As ATT observes in the record "A typical pole attachment involves an equitable trade-off required by Section 224 of the Communications Act,7 whereby the pole owner provides access to its existing pole and the attacher (for make-ready costs and a nominal rental rate) deploys its facilities on that existing pole without having to bear the costs to build its own infrastructure." AT&T Comments, *supra*, note 5 at 5

[27] *See* AT&T Comments, *supra*, note 5 at 3.

- The costs to the pole owner of redeploying investments and employees to respond to a pole-replacement request;
- The ability of the pole owner to recover the costs of investing in new poles by adjusting the rates paid by existing attachers or charging rates to new attachers;
- The value of the added capacity to the pole owner; this includes revenue from future attachments, the ability of the utility to add its own attachments, improved service quality and performance for the utility and attachers, lower operations and maintenance costs for the pole owner, and reduced liability exposure from failed poles; and
- The value of the added capacity to the attacher, in that the attacher receives benefit only for the space the attacher uses, but not for the additional capacity.

III. Conclusion

We recognize the FCC is in a challenging position. A rule that unilaterally imposes a replacement cost onto an attacher is expedient from an administrative perspective but does not provide an economically optimal outcome. It likely misallocates resources, contributes to hold-outs and hold-ups, and is likely slowing the deployment of broadband to the regions most in need of expanded deployment. Similarly, depending on the condition of the pole, shifting all or most costs onto the pole owner would not necessarily provide an economically optimal outcome. At the same time, a complex cost-allocation scheme may be more economically efficient, but also may introduce administrative complexity and disputes that could slow broadband deployment. To balance these competing considerations, we recommend the FCC adopt straightforward rules regarding both the allocation of pole-replacement costs and the rates charged to attachers, and that these rules avoid shifting all the costs onto one or another party.

We offer one final thought tangentially related to this proceeding. Co-op and municipal pole owners are exempted from FCC jurisdiction over pole-attachment rates. Section 224 claims that this is because these bodies are likely already subject to public scrutiny of their rates and operation.[28] But it is implausible that these pole owners, though they are public bodies, are immune from the same economic incentives to create hold-up problems. Indeed, as Commissioner Carr has noted:

> I continue to hear concerns from broadband builders about unnecessary delays and costs when they seek to attach to poles that are owned by municipal and cooperative utilities. Unlike what we are doing in today's item, there is a strong argument that Section 224 does not give us authority to address issues specific to those types of poles. Therefore, I encourage states and Congress to take a closer look at these issues—and revisit the

[28] *See* S. Rep. 95-580, 18, 1978 U.S.C.C.A.N. 109, 126 ("Because the pole rates charged by municipally owned and cooperative utilities are already subject to a decision making process based upon constituent needs and interests, S. 1547, as reported, exempts these utilities from FCC regulation.")

> exemption that exists in Section 224—so that we can ensure deployment is streamlined, regardless of the type of pole you are attaching to.[29]

We echo Commissioner Carr's sentiments here. The Commission's work on this matter is very important and stands to benefit millions of Americans trapped on the wrong side of the digital divide. The co-op and municipal loophole poses a major obstacle for achieving this end. Although the Commission does not have authority over these bodies, we believe that it should use its position to encourage states to better regulate pole attachments. It should also encourage Congress to revisit this issue and grant the Commission jurisdiction over these types of pole owners.

[29] FNPRM, *supra* note 1 at 54 (Statement of Commissioner Brendan Carr).