

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

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In the Matter of )

Accelerating Wireline Broadband )  
Deployment by Removing Barriers to )  
Infrastructure Investment )

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WC Docket No. 17-84

**COMMENTS OF CHARTER COMMUNICATIONS, INC.  
ON PETITION FOR DECLARATORY RULING**

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Pursuant to the Commission’s July 20, 2020 public notice,<sup>1</sup> Charter Communications, Inc. (“Charter”) submits these comments in support of the July 16, 2020 Petition for Expedited Declaratory Ruling filed by the Internet & Television Association (“NCTA”).<sup>2</sup>

Charter strongly supports the NCTA Petition and urges the Commission to grant it expeditiously. The Commission has recently emphasized that its “top priority is closing the digital divide so that all Americans can enjoy the many benefits of a high-speed broadband Internet connection—whether job opportunities, remote learning, telehealth, or staying connected to family and friends.”<sup>3</sup> Just as Chairman Pai has emphasized in the context of 5G deployment that “efforts to ensure that infrastructure deployment” should not be impeded by “unreasonable barriers to pole

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<sup>1</sup> See *Wireline Competition Bureau Seeks Comment on a Petition for Declaratory Ruling Filed by NCTA — The Internet & Television Association*, Public Notice, WC Docket No. 17-84, DA 20-763 (rel. July 20, 2020).

<sup>2</sup> Petition for Expedited Declaratory Ruling, WC Docket No. 17-84 (July 16, 2020) (“NCTA Petition”).

<sup>3</sup> See *In re Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling, WC Docket No. 17-84, DA 20-796 ¶ 1 (WCB rel. July 29, 2020) (“2020 Pole Attachment Ruling”).

access,”<sup>4</sup> ensuring prompt and reasonable access to poles is critical to closing the digital divide in rural America. The Commission should act on NCTA’s Petition as the next logical step in its continuing efforts to promote broadband deployment, which the Ninth Circuit has recently upheld.<sup>5</sup>

The Commission has previously recognized that make-ready costs may act as barriers to deployment,<sup>6</sup> and the NCTA Petition would advance this priority by providing a long overdue and badly needed clarification of how the Commission’s make-ready and cost allocation rules and orders apply in the pole replacement context. In enacting Section 224, Congress recognized that where a change-out was necessary “in order to accommodate the CATV user . . . it would be appropriate to charge the CATV user” only “*a certain percentage* of these pole ‘change-out’ replacement costs.”<sup>7</sup> Likewise, the Commission has specifically acknowledged that Congress “did not contemplate that cable would pay the entire cost of replacing the pole even when the change was necessitated to accommodate cable facilities,” and that such demands by utilities were an “area[] of possible abuse” and among the terms and conditions that “should be given close scrutiny in individual complaint cases.”<sup>8</sup> In subsequent orders, the Commission has reiterated that make-

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<sup>4</sup> Press Release, FCC, *Chairman Pai Statement on Major FCC Victory in 5G Infrastructure Case* (Aug. 12, 2020), <https://docs.fcc.gov/public/attachments/DOC-366137A1.pdf>.

<sup>5</sup> *See City of Portland v. United States*, No. 18-72689, \_\_\_ F.3d \_\_\_, 2020 WL 4669906 (9th Cir. Aug. 12, 2020).

<sup>6</sup> *In re Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, 32 FCC Rcd 3266, 3276-78 ¶¶ 32-37 (2017) (“2017 NPRM”).

<sup>7</sup> S. Rep. No. 95-580, at 19 (1977), as reprinted in 1978 U.S.C.C.A.N. 109, 127 (emphasis added).

<sup>8</sup> *In re Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, Report and Order, 2 FCC Rcd 4387, 4397 ¶ 76 & n.44 (1987) (“1986 Pole Attachment Order”), clarified on denial of reconsideration by 4 FCC Rcd 468 (1989).

ready charges must be “just and reasonable”<sup>9</sup> and that all parties who “directly benefit” from a modification of a pole, including the utility, must share in its cost.<sup>10</sup>

Despite the repeated admonitions that make-ready charges must be reasonable and limited to the costs actually caused by an attachment, pole owners frequently leverage their superior bargaining position to insist that an attacher seeking access must purchase a new pole for the utility and pay for its installation in full as a condition of attachment. As a practical matter, the common utility practice of charging the full replacement cost of a pole to the attacher means that the utility recovers far more than the costs that the attachment actually causes—the pole owner also obtains the additional windfall from advancing the upgrade of its facilities and shifting the entire cost of that upgrade onto the attacher. Today, as much of the nation’s pole infrastructure reaches or nears the end of its useful life, and pole owners face increasing regulatory obligations to invest in upgraded infrastructure, including poles, the effect of this practice is to shift significant capital expenditures, which should be the responsibility of the pole owner, onto new attachers instead.

The practice of shifting these costs to attachers is not only inconsistent with the statutory requirement that make-ready charges be just, reasonable, and cost-based, it comes at significant social cost. In unserved areas, where low population density requires large numbers of poles to reach each potential subscriber, requiring new attachers to subsidize pole owners’ infrastructure upgrades inhibits entry in these areas by substantially increasing the costs of deploying broadband, thereby perpetuating the digital divide. By creating a windfall for pole owners whenever a pole is replaced, this practice also creates incentives for pole owners to overstate the necessity of pole

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<sup>9</sup> *In re Implementation of Section 224 of the Act*, Report and Order and Order on Reconsideration, 26 FCC Rcd 5240, 5283-84 ¶ 93 (2011) (“*2011 Pole Attachment Order*”); *aff’d sub nom. Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183 (D.C. Cir. 2013).

<sup>10</sup> 47 C.F.R. § 1.1408(b).

replacements, or to induce them prematurely to serve their own investment objectives, leading to increased disputes with attaching entities that delay needed broadband deployment even further.

Clarifying the Commission's orders and rules, as requested by the NCTA Petition, would help better align pole owner practices with the Commission's rules and orders, as well as with Section 224's statutory command to ensure that pole attachment rates and practices are just and reasonable. Such clarification is particularly needed now, given the urgent policy focus on ensuring broadband connections for all Americans, particularly those in rural areas for whom internet access during the pandemic is a matter of utmost importance. Charter agrees with NCTA that these objectives can be advanced through a declaratory ruling as sought by the Petition. The Commission also has the ability to address this matter by adopting rule changes it proposed in the *2017 NPRM* in this docket and on which it has not yet taken action.<sup>11</sup> To ensure that the Commission's ruling in this area is meaningful, the Commission should also apply its Accelerated Docket procedures, which it recently extended to pole attachment complaints, to prioritize resolution of the subset of pole attachment disputes that prevent construction in unserved areas.

**I. EXCESSIVE POLE REPLACEMENT COSTS INHIBIT BROADBAND DEPLOYMENT IN RURAL AREAS, AND ADDRESSING THOSE BARRIERS WOULD ENABLE GREATER INVESTMENT.**

The NCTA Petition demonstrates the urgent need for the Commission to address the cost of pole replacements as a driver of broadband deployment costs in unserved areas.<sup>12</sup> Charter can confirm from its own experience that the cost of pole replacements factors significantly into its expenditures in bringing broadband to unserved, rural areas, and operates as a barrier towards

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<sup>11</sup> See *2017 NPRM*, 32 FCC Rcd at 3277-78, 3310-11 ¶¶ 35-36 & Appendix A (proposed changes to § 1.1416).

<sup>12</sup> NCTA Petition at Part II.

further network expansion in those areas. Addressing the unreasonable imposition of these significant costs on attachers, as the NCTA Petition proposes, would go a long way towards increasing the viability of private capital investment in rural broadband and advancing the Commission’s “top priority” of closing the digital divide by making broadband accessible to more Americans.

Rural broadband deployment is a high priority for Charter. Charter’s footprint has historically included a significant number of rural areas, and it is expanding into more such areas today. In 2018 and 2019 alone, Charter increased the reach of its 41-state network to more than 1.5 million additional homes and businesses—approximately a third of which are in rural areas.<sup>13</sup> In one state, Charter is currently engaged in one of the largest rural broadband construction projects undertaken by a single operator with private capital since the initial deployment of cable networks several decades ago, building over ten thousand miles of new plant in the past few years, with plans to complete over thirteen thousand miles by the end of 2021. For Charter, expansion of its rural network is not just a sound business decision, it is an investment in the economies and futures of the communities it serves.

As it has increasingly expanded its rural network in recent years, Charter has gained significant experience with the challenges that face broadband providers that build new wireline facilities in areas that currently lack broadband access. Charter can confirm that the challenges detailed in the NCTA Petition are very real,<sup>14</sup> and it is apparent from the Petition that Charter’s

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<sup>13</sup> *Our National Impact*, Charter Communications, <https://policy.charter.com/wp-content/uploads/2020/04/Charter-2020-National-Fact-Sheet-4.21.20-FINAL.pdf>.

<sup>14</sup> NCTA Petition at 5-6.

experience has been shared by many other cable providers.<sup>15</sup> Pole replacements are very commonly required by pole owners in rural areas and represent an inordinate portion of the costs of broadband deployment. In one of Charter's recent large rural expansion projects, approximately one out of every twelve poles required replacement, driving roughly one-quarter of the total costs of construction and significantly impacting both the cost and schedule of the project.<sup>16</sup> Because of the low population density in rural areas, the costs of these replacement poles are spread over a relatively small number of potential subscribers, making the financial viability of such projects (*i.e.*, whether they are likely to yield a positive return) highly sensitive to construction expenses.

Charter has also confronted numerous challenges arising out of pole owners' unpreparedness to address the operational requirements of large broadband deployment projects. For instance, at the initiation of one major buildout project implicating substantial rural build, Charter experienced extreme delays by utilities in processing Charter's applications, conducting surveys, and performing make-ready work. These utility delays resulted in applications that languished for months, substantially impacting Charter's ability to deploy its network. In some instances, pole owners who delayed action on Charter's pole attachment applications used the time to deploy their own broadband facilities instead. While Charter recognizes that the Commission's 2018 reforms in this docket provide attaching entities with additional options to overcome situations in which pole owners are unwilling or simply unable to timely process applications, conduct surveys, and perform certain make-ready work,<sup>17</sup> the new rules do not provide an

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<sup>15</sup> *Id.* at 6-8.

<sup>16</sup> *Id.* at 6.

<sup>17</sup> *In re Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Third Report and Order and Declaratory Ruling, 33 FCC Rcd 7705, 7711-15, 7717-



alternative to the pole owner's timely performance of pole replacements, making enforcement of the Commission's timelines for that work all the more critical.<sup>18</sup> Given the very high frequency with which pole replacements are required in rural areas, this dependence upon pole owner cooperation threatens to undermine the purpose of the make-ready timeframes and self-help remedies that the Commission expanded in 2018 if not addressed.

Charter's rural network expansion experience confirms that broadband providers who seek to expand their networks into currently underserved rural areas today can expect (1) pole infrastructure that will need significant upgrades to accommodate new broadband attachments; and (2) pole owners who may be unprepared or unmotivated to devote the necessary resources towards accommodating voluminous new attachment requests. As the NCTA Petition emphasizes, expanding broadband investment in rural areas requires addressing these issues.

## **II. THE POLE REPLACEMENT COST ALLOCATION PROPOSED BY THE NCTA PETITION IS CONSISTENT WITH ECONOMIC EFFICIENCY AND SOCIAL WELFARE.**

In addition to aligning with Section 224 and the Commission's precedents, the clarification requested in NCTA's Petition will also advance both economic efficiency and social welfare. The accompanying white paper by Patricia D. Kravtin, attached to these Comments as Exhibit 1,

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22, 7725-28 ¶¶ 13-17, 22-24, 27-31, 36-42 (2018) ("*Wireline Infrastructure Third Order*") (describing the Commission's One-Touch-Make-Ready ("OTMR") and self-help modifications).

<sup>18</sup> *Id.* at 7714-16 ¶¶ 17-19 (excluding "complex make-ready" procedures, like pole replacements, from the Order's OTMR rules). Notably, the inapplicability of the one-touch-make-ready rules to pole replacements does not preclude clarifying the cost allocation for pole replacements, or ensuring that the applicable make-ready schedules can be effectively enforced, as NCTA has proposed.

explains the strong economic and public policy rationales underlying the approach proposed by the NCTA Petition.<sup>19</sup>

As the Kravtin Paper explains, poles are classic “essential facilities” in an economic sense; in deploying their networks, communications attachers often have few or sometimes no other practical alternative besides renting pole attachment space from an incumbent pole owner.<sup>20</sup> Thus, pole access can be used as an economic bottleneck by utilities, and it provides an opportunity to exact monopolistic rents from attachers.<sup>21</sup> Because pole owners’ main line of business is most often regulated (by state electric regulators) on a cost-of-service basis, pole owners have little or no independent incentive outside of the Commission’s rules and orders to align make-ready charges or recurring rates with economic efficiency.<sup>22</sup> Given these realities, the Commission’s pole attachment regulations best advance social welfare when they provide incentives that will maximize economic efficiency despite the lack of a fully competitive market for pole attachment space.<sup>23</sup> Inefficient pricing of pole attachments, conversely, translates into downstream distortions and inefficiencies in the final product market (*e.g.*, broadband service).<sup>24</sup>

As the Kravtin Paper explains, the current practice of most utility pole owners—of demanding the full replacement cost of any utility pole replaced to accommodate an attachment—

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<sup>19</sup> See generally Patricia D. Kravtin, *The Economic Case for a More Cost Causative Approach to Make-Ready Charges Associated with Pole Replacement in Unserved/Rural Areas* (Sept. 2, 2020) (“Kravtin Paper”).

<sup>20</sup> Kravtin Paper at 4, 8.

<sup>21</sup> *Id.* at 8-9.

<sup>22</sup> *Id.* at 8-12.

<sup>23</sup> *Id.* at 9-10, 12. This stands in significant contrast to the communications context, where the goal of federal regulation has been to promote facilities-based competition. *Id.* at 8.

<sup>24</sup> *Id.* at 10, 12.

results in precisely such a misalignment. Pole replacement costs, as utilities often impose them on attachers today, “are typically based on the fully loaded cost of labor and materials to install a new pole, as well as the costs to remove the existing pole, as determined by the utility at its own discretion, and typically on a take it or leave it basis.”<sup>25</sup> Since the pole owner would have eventually needed to replace the pole anyway, and most of the economic value of the pole comes from its usefulness to the pole owner’s core service (usually electric distribution), this allocation overstates the actual costs caused by a pole replacement and attributes to the attaching entity a much larger responsibility than the cost it actually causes the pole owner to incur.<sup>26</sup>

The position commonly taken by utilities—that an attacher whose attachment precipitates the need to replace a utility pole has “caused” the full replacement cost for the pole—takes an unduly myopic view of what “cost causation” means in this context.<sup>27</sup> As the Kravtin Paper explains, since the future replacement of the pole from the utility’s perspective is “an inevitable event” that it would eventually have to pay for itself, the practice of transferring the full cost of that replacement onto new attachers (who must either pay to obtain access or choose to abandon their investment plans) results in burdens to the attaching entity far exceeding the costs they actually cause the pole owner to incur over a more meaningful time horizon.<sup>28</sup>

As the Kravtin Paper explains, this misallocation of costs has a particularly pernicious chilling effect for broadband deployment in unserved rural areas, where low population densities and the limited size of a potential subscriber base already present significant economic

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<sup>25</sup> *Id.* at 27.

<sup>26</sup> *Id.* at 27, 29-31.

<sup>27</sup> *Id.* at 5-8, 12-13, 35.

<sup>28</sup> *Id.* at 29-32, 35.

challenges.<sup>29</sup> Outsized pole replacement make-ready charges function like an inefficient tax on attaching entities that artificially raises the cost of broadband deployment, while lessening the cost of electric service, and thus leading to distorted investment and consumption decisions as well as economic deadweight losses.<sup>30</sup> They also distort the utility's own incentives: since a utility today receives a windfall whenever a new attacher pays for the full replacement costs of a pole, the utility faces incentives to overstate the necessity of pole replacements or induce premature retirements in order to transfer these costs to the attacher, leading to increased potential for disputes.<sup>31</sup>

The Kravtin Paper explains that the approach outlined in the NCTA Petition would correct these inefficiencies by offering “an economically fair and efficient manner” for allocating pole replacement costs that follows well established cost causation principles much better than current pole owner practices.<sup>32</sup> By adopting a more rational and realistic long-term view of the utility's time horizon and its pole replacement incentives, the NCTA Petition correctly recognizes that attachers should only be responsible for the costs associated with changing the *timing* of the inevitable replacement of the pole, plus any documented and verifiable additional costs actually caused by the attacher.<sup>33</sup> This framework results in each party—the pole owner and the attacher—bearing a more fair and reasonable share of the expenses that more accurately captures the costs that they have each caused to be incurred.

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<sup>29</sup> *Id.* at 22-25, 38-39.

<sup>30</sup> *Id.* at 39.

<sup>31</sup> *Id.* at 15, 29-30, 44.

<sup>32</sup> *Id.* at 44-45.

<sup>33</sup> *Id.* at 35, 45.

Under this approach, the primary cost that attachers should be responsible for is the unrecovered net book value of the retired pole, which would perhaps otherwise become a “stranded cost.”<sup>34</sup> Most other costs, however, would properly remain with the utility. This better aligns with cost causation principles since pole replacements bestow a significant amount of ‘betterment’ value on the utility—“productive value enjoyed by the utility from the replacement pole” that would not exist ‘but for’ the new attachment request.<sup>35</sup> By contrast, requiring attachers to pay for this betterment value creates significant economic inefficiencies and is not consistent with just and reasonable pole attachment rates, terms, and conditions. The approach set forth in the NCTA Petition would also better align utility incentives; since the cost of pole replacements would be shared more equitably, utilities would not face incentives to induce premature retirements driven by investment goals rather than safety and engineering objectives in response to attachment requests.<sup>36</sup>

Finally, the Kravtin Paper discusses how the NCTA Petition’s approach would operate in practice, and illustrates how it is well-suited to efficient and effective administration. The Paper provides step-by-step examples of how the Commission’s recurring rate formula methodology could be used to determine the net book value of the retired pole, and how additional, incremental, and idiosyncratic costs could be further taken into account.<sup>37</sup> The NCTA Petition’s approach could also be implemented even with limited data or average figures, since acceptable cost and

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<sup>34</sup> *Id.* at 34, 46 n.76.

<sup>35</sup> *Id.* at 13-14, 44.

<sup>36</sup> *Id.* at 32-45.

<sup>37</sup> *Id.* at 45-52.

depreciation inputs should be readily available for essentially all pole owners.<sup>38</sup> These approaches, the paper concludes, would lead to an economic state where utilities are made whole for their investment in new pole facilities and make-ready charges are free from inefficiencies and cross-subsidies.<sup>39</sup>

### **III. THE NCTA PETITION WOULD CLARIFY APPLICATION OF EXISTING LAW, AND THE COMMISSION HAS CLEAR AUTHORITY TO DO SO.**

The Commission has two sources of authority to address the problems of excessive pole replacement rates as described above and in NCTA's Petition. First, the adoption of NCTA's request for a clarification of the Commission's existing orders and rules is well within the Commission's authority to grant without the need for a rulemaking proceeding. Alternatively, the Commission could act on pending proposals to codify by rule its longstanding holding that make-ready charges must be limited to costs actually caused by an attachment and to expressly confirm utilities' obligation to share in the cost of improvements to their facilities.

#### **A. The Interpretation Sought by the Petition Is Well-Suited for a Declaratory Ruling.**

The Commission's authority to interpret the Communications Act, including Section 224, and its implementing orders and regulations through declaratory rulings and interpretive rules is well-established.<sup>40</sup> Indeed, the Commission very recently issued a declaratory ruling under Section 224 specifically to help remove barriers to broadband deployment created by pole owner practices

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<sup>38</sup> *Id.* at 50-52.

<sup>39</sup> *Id.* at 46, 53.

<sup>40</sup> *See* NCTA Petition at Part IV.

inconsistent with the Commission's orders.<sup>41</sup> The NCTA Petition asks the Commission to do the same thing: to clarify its existing orders, rules, and Section 224 in a context in which utility practices have frequently diverged from just and reasonable practices and such divergence stands as a barrier to broadband deployment.<sup>42</sup>

The Commission's 2017 Notice of Proposed Rulemaking in the instant docket also provides a legal foundation for NCTA's requested rulings. The *2017 NPRM* recognized both that (1) "the holding that new attachers are responsible only for the cost of make-ready work made necessary because of their attachments" is *already* the law under the Commission's orders, even though it is not codified in a regulation; and (2) the same relief now requested by the NCTA Petition is within the Commission's interpretive power because it is the subject of an existing make-ready rule that the Commission proposed to "interpret" to apply to utilities "when make-ready improvements subsequently benefit the utility[.]"<sup>43</sup> The NCTA Petition thus asks the Commission to take action on issues squarely within the scope of this proceeding and well-suited for resolution through a declaratory ruling.

The legal basis for the NCTA Petition, as set forth therein, is sound and straightforward. The Commission has recognized on several occasions that (1) make-ready costs must be "just and reasonable,"<sup>44</sup> and pole replacements are a form of make-ready;<sup>45</sup> (2) demands by pole owners that

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<sup>41</sup> *2020 Pole Attachment Ruling*. Tellingly, in that Order the Wireline Competition Bureau rejected arguments the requested ruling could not be issued unless the Commission undertook a rulemaking proceeding. *Id.* ¶ 6 & n.12.

<sup>42</sup> NCTA Petition at Part II.

<sup>43</sup> *2017 NPRM*, 32 FCC Rcd at 3277-78 ¶¶ 35-36.

<sup>44</sup> *2011 Pole Attachment Order*, 26 FCC Rcd at 5283-84 ¶ 93.

<sup>45</sup> 47 C.F.R. § 1.1402(o).

attachers pay for pole replacements are an “area[] of possible abuse” and “should be given close scrutiny in individual complaint cases”;<sup>46</sup> (3) all “parties that directly benefit from” a modification to a facility to accommodate an attachment must “share proportionately” in that cost;<sup>47</sup> and (4) the pole owner itself can be such a beneficiary.<sup>48</sup> The ruling requested by the NCTA Petition would apply these existing principles to provide guidance for the allocation of pole attachment costs in the highest-priority areas where inequitable allocations are resulting in barriers to deployment today.

Although Charter (in the interest of avoiding repetition) will not restate the full analysis underlying the NCTA Petition here, Charter fully endorses the NCTA Petition’s reasoning setting forth how these principles support the declaratory ruling requested. Charter emphasizes that the NCTA Petition is not asking and does not require the Commission to make new rules;<sup>49</sup> it is merely asking it to clarify the application of existing precedents and statutory provisions that should already bind pole owners today. Specifically, the principle that a pole owner (as part of just and reasonable make-ready charges) may only recover the costs actually caused by the attachment is well-established.<sup>50</sup> The clarification requested by the NCTA Petition is needed to confirm what it means for an attacher to cause costs to a pole owner in the specific context of pole replacements.

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<sup>46</sup> *1986 Pole Attachment Order*, 2 FCC Rcd at 4397 ¶ 76 & n.44.

<sup>47</sup> 47 C.F.R. § 1.1408(b).

<sup>48</sup> *In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 16096-97 ¶ 1212 (1996), *aff’d in part, vacated in part sub nom. Iowa Utilities Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *aff’d in part, rev’d in part sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

<sup>49</sup> For instance, NCTA is not seeking the expansion of One-Touch-Make-Ready procedures to pole replacements, but rather merely an interpretation and application of existing pricing principles to the rates for replacements.

<sup>50</sup> NCTA Petition at 13-14.



As set forth in Part II above and the accompanying economic analysis by Patricia D. Kravtin, when a pole attachment precipitates a replacement of a pole, the immediate expense incurred to replace the pole will almost always overstate the cost that the attachment actually causes, since poles are inevitably replaced as part of cyclical replacement programs or state-ordered hardening requirements and the attachment merely moves this replacement forward in time.<sup>51</sup> The utility practice of charging the full, immediate expense of a pole replacement, therefore, results in significant over-recovery, well above the costs actually caused by the attacher and well above the just and reasonable recovery permitted by Section 224 and the Commission's regulations and orders. In practical terms, pole owners are adding, to the costs caused by the attacher, *additional* costs associated with their own facilities upgrades, which the attacher did not cause.<sup>52</sup> The NCTA Petition, correctly, asks the Commission to confirm and clarify that each of the costs (1) caused by the attacher and (2) attributable to the utility's own betterment of its facilities should be properly separated and accounted for.

**B. The Commission's 2017 NPRM Provides Additional Flexibility for the Relief Requested by the Petition.**

The clarification requested by the NCTA Petition is based upon existing orders and statutory requirements and neither asks nor requires the Commission to create new rules, as explained above. As explained below, however, the 2017 NPRM sought comment on whether to adopt rules to (1) codify the Commission's policy of equitable allocation of pole replacement costs and (2) expressly confirm utilities' obligation to share in the cost of improvements to their facilities. To the extent additional procedural options are desired, the Commission could therefore

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<sup>51</sup> Kravtin Paper at 5, 29-30.

<sup>52</sup> *Id.* at 29-31, 35.

also adopt the interpretation requested by the NCTA Petition by directly codifying it in its pole attachment regulations, without the need for a new rulemaking.

In addition to seeking comment on whether it should interpret the already-existing language in Section 1.1408(b) of its rules (at the time Section 1.1416(b)) to require equitable cost-sharing for “improvements that subsequently benefit the utility,” the Commission’s *2017 NPRM* also sought comment as to whether it should “modify” the rule to achieve the same result. The *NPRM* also further proposed adding a new subsection to the rule that would “codify[] the holding that new attachers are responsible only for the cost of make-ready work made necessary because of their attachments” in order to “[h]elp to ensure that make-ready costs are just and reasonable,” and sought comment on a draft rule implementing this proposal.<sup>53</sup> These proposals have already been through notice and comment and remain pending at the Commission. Although the Commission has not yet taken action on these proposals in its orders in this docket to date, it has provided notice that it still anticipates taking action on its proposed reforms to “reduce charges paid by attachers to utilities for work done to make a pole ready for new attachments,”<sup>54</sup> and that it will “take further action as warranted in this proceeding to address outstanding issues.”<sup>55</sup>

For the reasons set forth herein and in the NCTA Petition itself, pole replacement costs remain an important item within the scope of the Commission’s *2017 NPRM* in this matter and warrant such further action now. The pending proposals in the *2017 NPRM* would address the

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<sup>53</sup> *2017 NPRM*, 32 FCC Rcd at 3277-78, 3310-11 ¶¶ 35, 36, & Appendix A at 45 (draft proposed rule).

<sup>54</sup> *In re Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Report and Order, Declaratory Ruling, and Further Notice of Proposed Rulemaking, 32 FCC Rcd 11128, 11131 ¶ 6 & n.12 (2017), *petition for review denied sub nom. City of Portland v. United States*, No. 18-72689, \_\_\_ F.3d \_\_\_, 2020 WL 4669906 (9th Cir. Aug. 12, 2020).

<sup>55</sup> *Wireline Infrastructure Third Order*, 33 FCC Rcd at 7771-72 ¶ 130.

same issues raised by NCTA's Petition. Thus, while the declaratory ruling sought by the Petition represents an opportunity to advance the Commission's priorities, the Commission also has the option of expeditiously implementing pole attachment rules to achieve the same outcome.

#### **IV. POLE ACCESS DISPUTES IN UNSERVED AREAS ARE WELL-SUITED TO ACCELERATION.**

Charter also supports the NCTA Petition's proposal that the Commission help address the operational challenges and delays of rural broadband construction by prioritizing and expediting its resolution of pole attachment complaints that impede deployment in such areas. The Petition is fully consistent with the Commission's 2017 decision to make pole attachment complaints eligible for the Accelerated Docket.<sup>56</sup> Announcing priorities to guide Staff's discretion under 47 C.F.R. §§ 1.736(d) and 1.736(f) that presumptively favor the placement of pole access complaints on the Accelerated Docket when they arise in unserved areas would help ensure that the Commission's rules and orders in this area can be meaningfully enforced in practice.

Particularly critical are disputes in unserved areas that prevent an attacher from moving forward with deployment of its network at all. In Charter's experience, disputes that functionally prevent construction tend to fall into four categories:

- (1) express denials of access (*e.g.*, disputes about whether a pole can accommodate additional attachments without a replacement);
- (2) functional denials of access (*e.g.*, disputes where the pole owner and attaching entity disagree about whether the conditions for an attachment have been met, such as the completeness of an application, or where a utility fails to comply with deadlines to perform tasks for which self-help is unavailable);
- (3) disputes about conditional access (*i.e.*, disagreements arising out of utility demands that an attacher satisfy certain conditions or requirements external to the

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<sup>56</sup> *FCC FACT SHEET: Formal Complaint Rules*, Report and Order -- EB Docket No. 17-245, ¶ 18, <https://docs.fcc.gov/public/attachments/DOC-351867A1.pdf>.

Commission’s make-ready and pole attachment timelines before the utility will permit an attachment); and

(4) categorical disagreements about make-ready costs that rise to the level of preventing an attaching entity from moving forward with a construction project.<sup>57</sup>

In each of these instances, prompt attention by Bureau Staff would help eliminate roadblocks to constructing new broadband facilities, as new attachers would otherwise have to wait for months to resolve such disputes through the Commission’s regular complaint process before they could even initiate deployment, thus delaying significantly the ability to bring broadband to unserved areas. Moreover, unlike more complex proceedings (such as disputed recurring rate cases), each of these classes of dispute involve comparatively narrow issues and are thus particularly well-suited to expedited consideration and resolution.

Expediting selected pole attachment disputes in this manner would also be consistent with the purposes of the Accelerated Docket, and thus it is well within the Commission’s authority to clarify the scope of the Accelerated Docket through a declaratory ruling. In creating the Accelerated Docket, the Commission—while noting that Staff would have discretion over which matters to include—identified several factors to guide those decisions.<sup>58</sup> Relevant here, the Commission emphasized that Staff should prioritize requests that, *inter alia*, “advance competition,” are “suited for decision under the constraints imposed by the Accelerated Docket,” and where “factual discovery will [not] be so extraordinarily complex and time-consuming” that the Accelerated Docket would make little sense.<sup>59</sup> Expediting pole access disputes in unserved

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<sup>57</sup> If the Commission grants NCTA’s Petition, it may also be called upon to ensure that pole owners do not unlawfully discriminate against attaching entities who avail themselves of the Commission’s ruling as means of pressuring them to pay additional costs.

<sup>58</sup> *Implementation of the Telecommunications Act of 1996*, Second Report & Order, 13 FCC Rcd 17018, 979 ¶¶ 17-21 (1998).

<sup>59</sup> *Id.* at ¶¶ 18-19.

areas would advance competition in unserved areas by eliminating one of the primary barriers to market entry. And as set forth below, disputes in each of the four identified categories will in most cases involve discrete issues susceptible to prompt resolution with only modest discovery and factual development.

First, express denials of access commonly center around whether a pole has the ability to accommodate a new attachment (including through rearrangement of existing facilities). As noted above and in the Kravtin Paper, utilities today face economic incentives to induce pole replacements in response to new attachments, due to the “betterment” windfall they receive whenever a new attacher pays for a new pole.<sup>60</sup> And utilities may induce pole replacements through adoption of internal engineering standards that go beyond reasonably necessary safety and engineering requirements. Granting the NCTA Petition with respect to the allocation of pole replacement costs, therefore, has the potential to reduce the frequency of disputes involving express denials of access, since the clarification requested by the Petition would reduce utilities’ incentive to create the need for premature pole replacements.

Where such disputes continue to arise, however, the factual issues and discovery required to resolve them should be discrete and manageable. Such disagreements typically arise from the utility’s engineering analysis of the attachment(s) in question, the reasonableness and sufficiency of the utility’s reasons for denial, and the reasonableness of any internal utility standards underlying the denial of access. Although this will require discovery of the utility’s engineering analysis and other materials underlying the access determination, and may in some instances require testimony and cross-examination relating to the decision to decline access, the

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<sup>60</sup> Kravtin Paper at 37-38.

comparatively discrete nature of the discovery required and legal issues in dispute makes such disputes well-suited to accelerated resolution.

Second, disputes about functional denials of access are even more discrete. Under the Commission's 2018 reforms to its pole attachment timelines and rules, which have placed firmer requirements around utilities' evaluation of pole attachment applications for completeness,<sup>61</sup> Charter expects disputes in this category (which Charter frequently encountered prior to the Commission's recent reforms) to become much less common going forward. To the extent such disputes continue to arise, however, the issues requiring Commission resolution should generally be limited to (a) whether a utility's delays in processing applications and completing necessary make-ready work are in good faith or otherwise justifiable under the Commission's make-ready rules; and (b) the appropriate remedy to direct compliance with applicable schedules. The need for discovery and evaluation of competing evidence in these cases should be modest.

Third, to the extent broadband deployment is held up as a result of disputes between pole owners and attachers unrelated to the Commission's access rules (such as pole attachment rental issues, or disagreements about terms in pole attachment agreements under renegotiation at the time of the attachment request),<sup>62</sup> enforcing the Commission's rule that a utility may only deny access for reasons of insufficient capacity or for safety, reliability and generally applicable engineering purposes could be handled in an expedited manner.

Finally, although run-of-the-mill cost disputes (such as regarding recurring rental rates or the reasonableness of specific charges) can be resolved in the regular course after construction is

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<sup>61</sup> See 47 C.F.R. § 1.1411(c).

<sup>62</sup> See, e.g., *Kansas City Cable Partners v. Kansas City Power and Light*, Consolidated Order, 14 FCC Rcd 11599, 11604, 11606 ¶¶ 11, 18 (CSB 1999).

completed, some categorical disagreements about make-ready costs may involve differences so vast that an attaching entity cannot meaningfully proceed with construction of a new broadband project until it knows whether the financial viability of the project will be compromised by disputed make-ready costs. For instance, under the pole replacement cost allocation approach set forth in the NCTA Petition, a utility and attacher may have a basic disagreement about the nature of the poles a utility would have otherwise installed in the absence of an attachment and when it would have done so—disputes that may have significant financial consequences for the ability of an attacher to deploy broadband, but which can be resolved by reviewing the pole owner’s regulatory obligations in the jurisdiction and its investment schedule. Where disputes about large categories of costs turn on such discrete questions, the ability to obtain prompt attention and resolution from the Commission is particularly critical to timely deployment. The exercise of discretion by Staff will continue to inform which specific disputes regarding make-ready costs merit accelerated resolution. However, the Commission can and should confirm that cost-based disputes can function as limitations on access and should be treated as such.

In each instance, the ability to meaningfully expand broadband access in unserved areas requires certainty on behalf of both pole owners and attaching entities that the Commission’s rules and regulations will be enforced expeditiously. Absent a shared expectation of prompt enforcement, pole owners’ superior bargaining position risks undercutting the effectiveness of any reforms the Commission adopts. Charter therefore urges the Commission to grant the NCTA Petition and expedite pole access complaints in unserved areas when they arise.

## **CONCLUSION**

Charter respectfully requests that the Commission promptly issue the declaratory ruling requested by the NCTA Petition to enable providers to more expeditiously expand broadband access in rural America.

Dated: September 2, 2020

Respectfully submitted,

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**The Economic Case for a More Cost Causative Approach to Make-Ready  
Charges Associated with Pole Replacement in Unserved/Rural Areas:  
Long Overdue, But Particularly Critical Now in Light of the Pressing Need to  
Close the Digital Divide**

**By Patricia D. Kravtin\***

**September 2, 2020**

\* This report has been underwritten by Charter Communications, Inc. The opinions and viewpoints expressed are those of the author alone.

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## Executive Summary

Pole attachments are a necessary and largely unavoidable input to the production of broadband internet services in the United States. Broadband providers face little, and in many cases, no practical alternative to attaching their broadband facilities to the poles of incumbent pole owners, most often the local electric utility. Utility dominance of pole facilities arose as a result of public policies whose goal was to establish the widespread availability of electric and phone service, along with the growth and stability of those industries. Early on, lawmakers and municipal officials recognized the essential nature of electricity and telephone services and enacted policies to encourage utilities to build, own, and maintain ubiquitous pole networks within their service areas. Cable operators and other providers of communications and broadband services were never expected to build parallel pole plant for the delivery of their services. Rather, public policies have historically relied on the use of economic regulation to ensure access to these ubiquitous utility-owned pole facilities by cable operators and other communications companies to provide services to users. And rather than rely on the regulated monopoly model that was deemed necessary in the utility pole attachment context, Congress and the FCC have sought to promote facilities-based competition in the provision of communications services.

Thus, given that poles are, in economic terms, “essential” or “bottleneck” facilities that serve as a critical input to the production of communication services, the goal of pole attachment regulation, historically and continuing today, is to prevent utility pole owners from leveraging their monopoly power over attachers by imposing unjust and unreasonable rates, terms, and conditions on attacher access to utility poles. In this vein, the effective regulation of pole attachment recurring rates and nonrecurring charges is a surrogate for competitive market forces and strives for economically efficient allocations of resources and favorable market entry conditions. Included in that regulatory sphere are the formulation and imposition of non-recurring charges for “make-ready” activities, such as the replacement of utility poles.

However, the make-ready charges of many if not most pole owners subject to the jurisdiction of the Federal Communications Commission (“Commission” or “FCC”) under Section 224 of the Communications Act (“Section 224”) are typically based on a critical yet flawed assumption: that all of the make-ready activities undertaken and associated costs incurred by the pole owner immediately after a request for a new attachment were in fact *caused* by that request,

rather than by underlying utility operations and needs independent of the new attachment. In particular, when utility poles are replaced as a part of make-ready activities, new attachers are often assessed the fully-loaded costs of the pole replacement, even though that project produced a facility improvement with joint economic value to both the utility *and* the attacher, with the lion's share of that betterment value accruing to the utility. If the attacher assents to the imposition of these charges (typically offered by the utility on a "take it or leave it" basis) in order to obtain pole attachment space, the utility and its core utility service customers receive a new utility pole without any corresponding cost responsibility. As explained in detail below, this prevailing practice is at odds with the economic principles of cost causation, economic efficiency, and social welfare maximization.

In the parlance of social welfare economics, economists define efficiency as an optimal state where it is impossible to improve the economic situation of one party without making another worse off. This is *not* the same as saying that the utility's cash position and account balances should be restored to their pre-request levels by the attacher. Rather, what it means in an economic sense is that the utility should be indifferent between its overall economic position before the request (with its existing facilities) and its overall economic position after the request (with the new facilities), because the attacher has compensated it for all of the replacement costs that did not provide the utility with corresponding economic betterment value. The proper economic calculus, that is, one designed to achieve maximum allocative and productive efficiencies, takes into account the totality of all economic costs and benefits (including cost savings) to the respective parties.

The Commission's rules seek to guide pole owners and attachers towards this efficient state by ensuring that all parties that directly benefit or gain from the modification share proportionately in the cost of that modification, commensurate with that benefit or gain. Thus, both economics and regulation point towards the same outcomes here—efficiency and marginal cost pricing—the outcomes that would occur if the market for pole attachment space was a well-functioning competitive marketplace (which it is not).

The approach to pole replacement make-ready cost allocation outlined in the petition filed in this docket by NCTA – The Internet & Television Association ("NCTA petition") is consistent

with these key economic principles.<sup>1</sup> The NCTA petition recognizes that the replacement of poles is an inevitable or unavoidable cost to the utility that would occur in the normal course of utility operations independent of the existence of the third-party attacher. Every year utilities must replace poles on account of pole failure or destruction, storm hardening, or due to routine capital replacement activities. While long-lived, no pole lasts forever and recent requirements for greater pole resiliency in many instances are hastening the utility’s pole replacement plans, such that an increasing number of poles are being replaced before the end of their average service lives.

Consistent with economic theory, then, pole replacements are a long-term fact of life for utilities, and the inevitable need for the replacement of any given pole is a ‘but for’ consequence of the *pole owner’s core utility service* and *not* of a new attacher’s request. Those requests merely change the *timing* of the pole’s eventual replacement. Thus, the NCTA approach sensibly assigns the costs of that temporal shift to the attacher. These are mainly in the form of the remaining (yet to be depreciated) net book value of the retired pole, plus any proven additional unique incremental costs traceable to the attacher and not the utility’s normal course of operations. When properly considered, the attachment request is a deviation from the pole owner’s otherwise-applicable pole replacement schedule and practices, and should not be viewed in total isolation from it for purposes of make-ready cost responsibility. The NCTA petition correctly recognizes the appropriate economic frame of reference for determining whether the costs associated with a pole replacement are properly considered avoidable by the utility (and hence an incremental or “but for” cost to the utility attributable to the attacher) must be informed by a dynamic time frame sufficiently long enough to factor in the utility’s own replacement program and also the economic gains or utility “betterment” bestowed upon the utility as a consequence of pole replacements.

When viewed from the proper, long-term perspective that utilities themselves take in assessing capital investment decisions, and given that most of the value of a utility pole comes in its usefulness to core *utility* service operations, NCTA’s approach avoids cross-subsidies and inefficiencies in make-ready charges. The NCTA approach can also be easily administered. In general, the economic standard for achieving an optimal, economically efficient market outcome—one governed by cost causation principles and the absence of cross-subsidy—is that the utility will

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<sup>1</sup> NCTA – The Internet & Television Association, *Petition for Expedited Declaratory Ruling*, FCC WC Docket No. 17-84 (filed Jul. 16, 2020), *available at* <https://www.fcc.gov/ecfs/filing/107161552527661> (“NCTA Petition”).

be no worse off in real terms after hosting a pole attachment than it was prior to the attachment request. The NCTA petition's approach would achieve that outcome by ensuring that pole owners are compensated for the marginal costs of the pole replacement associated with the new attachment request, net of the betterment that the pole owner receives.

As a practical matter, given that recurring rates based on fully allocated costs are not at issue in the petition and will continue to compensate pole owners well in excess of the minimum levels required by law, there is little to no risk that pole owners will face any cost recovery shortfall problems as a result of granting the NCTA petition. Given the pressing need to close the digital divide, there is much more risk to society from the windfall recovery built into utilities' current inefficient make-ready cost allocation practices, due to the market distortions and disincentives to invest in broadband infrastructure, especially in unserved areas, that those practices create. Granting the petition thus aligns utility practice to sound economic principles and promotes broadband deployment in unserved areas.

## **Part I: The Economic Principles of Efficiency, Cost Causation and Cost Allocation**

### **A. Key Economic Principles Guiding the Effective Regulation of Pole Attachment Costs and Maximization of Overall Societal Welfare**

The primary purpose of pole attachment regulation, both historically and today, is to protect cable operators and other third-party communications attachers against potential abuse by pole-owning utilities. Utilities not only provide regulated services over their own existing network facilities; they also control access to a vital, often unavoidable input of production needed to provide broadband and other critical communications services. Pole-owning utilities, by virtue of historical incumbency and preexisting network facilities, own and control pole plant to which third-party communications providers often have no practical or economically viable alternative but to attach.

Pole attachment regulation by and under Section 224 follows from this first principle, and recognizes that cable and other third-party communications and broadband providers were never expected to build their own parallel pole plant. Rather, public policies have historically relied on the use of economic regulation to ensure communication companies have access to these ubiquitous utility-owned pole facilities under just and reasonable rates, terms, and conditions in order to provide their services to end users. Following the passage of the Telecommunications Act of 1996, access to poles and just and reasonable rates was also an essential element of promoting the development and expansion of facilities-based competition within the communications market.

That poles and conduits are “essential facilities” capable of serving as bottlenecks to third-party communications providers (and, by extension, competition among providers) has long been recognized in regulatory economic literature and by the Commission, state and local regulatory bodies, and the courts.<sup>2</sup> This reality has been a major factor in rulings by these bodies as to the

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<sup>2</sup> See *NCTA v. Gulf Power*, 534 U.S. 327, 330 (2002):

Since the inception of cable television, cable companies have sought the means to run a wire into the home of each subscriber. They have found it convenient, and often essential, to lease space for their cables on telephone and electric utility poles. Utilities, in turn, have found it convenient to charge monopoly rents.

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

As the owner of these ‘essential facilities,’ the power companies had superior bargaining power, which spurred Congress to intervene in 1978.

*Alabama Power v. FCC*, 311 F.3d 1357, 1362 (11th Cir. 2002) (“*Alabama Power*” or “*APCo*”).



continued appropriateness of applying the cable rate formula to determine recurring rates applicable to pole attachments.<sup>3</sup> While the ‘essential facility’ doctrine is most often cited in the context of the Commission’s recurring rate formula, it also applies in equal force to make-ready charges, which are the other component of cost recovery afforded utilities under the Commission’s pole attachment rules. It is those make-ready charges that NCTA’s petition brings before the Commission in this docket.

Where a utility has control over an essential or bottleneck facility like poles, left unchecked by regulation the utility may condition access to these essential bottleneck facilities on the extraction of excessive monopoly rents from would-be attachers. As a historical matter, and as Congress has recognized, third-party communications attachers have had, and continue to have, little (if any) realistic choice *but* to rent space on the existing local network of utility poles and conduits.<sup>4</sup> Given growing utility interest in entering the broadband market to compete with attachers,<sup>5</sup> pole-owning utilities today have an even greater incentive to use their control over

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The legislative history of the Communications Act Amendments of 1978 further confirms this point. The Senate Report accompanying the legislation cited a Staff Report by the Commission’s Office of Plans and Policy which found that “public utilities by virtue of their size and exclusive control over access to pole lines, are unquestionably in a position to extract monopoly rents from cable TV systems in the form of unreasonably high pole attachment rates.” *Communications Act Amendments—Penalties and Forfeitures Authority and Regulation of Cable Television Pole Attachments by the Federal Communications Commission*, S. Rep. No. 95-580 at 13 (Nov. 2, 1977) (citation omitted), *reprinted in* 1978 U.S.C.C.A.N. 109, 121.

<sup>3</sup> At bottom, it was the lack of viable market-based alternatives for pole and conduit space that led Congress in the Telecommunications Act of 1996 (“the Act”) to extend protections previously afforded cable operators under Section 224 of the Communications Act to new telecommunications providers, and also to require utilities to provide non-discriminatory access to these essential pole and conduit facilities for both cable operators and telecommunications carriers. See Pub. L. 104-104, Title VII, § 703, Feb. 8, 1996, 110 Stat. 149, *codified at* 47 U.S.C. § 224 (1996). As the legislative history and language in the Act suggests, in expanding the Commission’s jurisdiction over poles and conduit to telecommunications service providers, Congress wanted these entities, like the cable television companies before them, to have nondiscriminatory access to utilities’ bottleneck facilities without having to pay monopoly rents. See *id.* at § 703(2), (7) (adding reference to “provider of telecommunications service,” and imposing nondiscriminatory access obligation alongside existing just and reasonable rate provisions), *codified at* 47 U.S.C. § 224(a)(4), (f) (1996).

<sup>4</sup> S. Rep. No. 95-580 at 13 (1977):

Owing to a variety of factors, including environmental or zoning restrictions and the costs of creating separate CATV poles or entrenching CATV cables underground, there is often no practical alternative to a CATV system operator except to utilize available space on existing poles.

<sup>5</sup> Electric providers have increasingly begun to offer broadband service alongside their traditional electric utility operations. Several investor-owned utilities serving rural areas have shown interest in providing broadband. See Dominion Energy, *Broadband Feasibility Report* (Dec. 1, 2018), *available at* <https://rga.lis.virginia.gov/Published/2019/RD281/PDF>. State legislatures and state agencies have also given serious thought to the idea of electric providers adding broadband to their service offerings. Vermont Department of Public Service, *Feasibility Study of Electric Companies Offering Broadband in Vermont* (Dec. 2019), *available at* <https://legislature.vermont.gov/assets/Legislative-Reports/Feasibility-Study-of-Electric-Companies-Offering-Broadband-in-Vermont.pdf>; see also Indiana Senate Bill 411 (passed Senate Jan. 28, 2020) (proposing study of the installation and leasing of broadband capacity infrastructure by investor-owned electric utilities in unserved and underserved areas), *available at* <http://iga.in.gov/>

bottleneck pole facilities to impose high costs of entry on potential competitors. These monopoly rents—well in excess of an efficient level—effectively place the pole-owning utility in a gatekeeper role, particularly as it pertains to unserved rural areas.

Under established economic principles, that efficient level is a price approximating marginal costs: the outcome that would result naturally under competitive market conditions for pole attachments, if such conditions existed (which they do not). As a general matter, in a competitive market, entry barriers are low; there are a multitude of sellers, and no individual seller is large enough to control prices or sustain price increases much in excess of a normal level of compensation for use of their productive capacity (*i.e.*, a level that would induce entry by other sellers). This is the case in either a production input market (*e.g.*, that for pole attachment space) or in a final product market (*e.g.*, the market for broadband and other communications services). At prices much greater than marginal costs, entry would be induced, resulting in an increase in supply and prices bid back down close to the incremental or marginal costs of production.<sup>6</sup> Marginal cost pricing, by contrast, ensures fair compensation to utilities while avoiding inflated costs in the final product market (in this case, the market for broadband and other communications services) that would inevitably be passed through to consumers. The competitive market outcome is associated with the realization of a number of desirable performance attributes: these include increased infrastructure investment, innovation, more widespread service deployment, and the offering of a greater array of advanced, high quality service offerings to consumers and at lower rates.

Because there is not a “free” or generally open production input market for pole attachment space, the function of rate regulation in that market is to mimic competition to the extent possible under the circumstances and promote economic efficiency despite the natural limitations of the

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legislative/2020/bills/senate/411. Although not subject to the Commission’s jurisdiction, the strong interest shown by electric cooperatives in providing broadband services in rural America is indicative of utility pole owners controlling access to essential pole facilities needed by communications providers to provide services in these unserved areas. See, *e.g.*, Kit Carson Electric Cooperative, “Kit Carson Internet” at 7 in 2018 Annual Report (accessed Aug. 3, 2020), available at <https://kitcarson.com/wp-content/uploads/2019/06/2018-Annual-Report-.pdf>; Nat’l Rural Elec. Cooperative Ass’n, *Broadband Case Study: Show-Me Power Electric Cooperative* (Sept. 2019), available at <https://www.cooperative.com/programs-services/bts/Documents/Advisories/Advisory-Broadband-Case-Study-Sho-Me-September-2019.pdf>; Otsego Electric Cooperative, “Broadband Project Update” (Nov. 14, 2017), available at <https://www.otsegoec.coop/broadband-project-update>.

<sup>6</sup> See Walter Nicholson, Christopher M. Snyder, *Microeconomic Theory: Basic Principles and Extensions* at 418-20 (12th ed.; Cengage Learning 2016) (explaining attraction of new firms and their effect on prices and economic profits).

input market. And when regulators fail to strive towards efficient prices in regulated input markets, that failure leads to a number of undesirable outcomes. Prices well in excess of the competitive level have a distorting impact on market outcomes by suppressing both the supply of and demand for the final good or service (*e.g.*, broadband and other communications services) to inefficient levels. As expanded upon below, these market distortions diminish overall economic societal welfare, and are *especially* detrimental in unserved/rural areas characterized by intrinsically high costs per subscriber, in direct contravention of public policy goals. From an economic social welfare perspective, there is economic value to society associated with the efficient use of resources. By contrast, there is an economic loss to society associated with inefficient market outcomes, and avoidable inefficiencies result when pole-owning utilities are permitted to exercise market power in the pricing of make-ready charges for pole replacements, the concern raised in the NCTA petition.<sup>7</sup>

From a social welfare economics perspective, efficient pricing practices promote the best possible utilization of resources. As discussed later in this paper, the NCTA petition explains that clarifying make-ready pricing practices applicable to pole replacements would ensure that these practices better align those prices to the true cost-causative, unavoidable costs incurred by the utility in connection with the attacher's request: those associated with the deviation from the otherwise-applicable pole replacement plans that the utility otherwise would have followed. This would conform make-ready pricing for replacement poles to the Commission's pricing principles as applied in other make-ready situations. Present utility pricing practices that shift to the attacher the utility's total loaded cost of new poles—regardless of the utility's endogenously-determined replacement program, for which the primary cost driver is the provision of the utility's core electric service—result in far less than optimal outcomes especially in unserved areas.

The gap between the pole attachment make-ready replacement costs currently demanded by utilities from attachers and those that would result from more efficient, marginal cost pricing is not just a theoretical, chalkboard problem. This mispricing engenders very negative real-world consequences. There are significant harms to the consuming public and overall societal welfare when pole attachment costs substantially deviate from socially optimal levels as defined in accordance with established, objective economic principles. Given the essential facility nature of

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<sup>7</sup> See NCTA Petition at 8, 16-17.

pole attachments and in the absence of a well-functioning market for pole attachment space, pole-owning utilities have no incentive to lower make-ready charges closer to their efficient marginal cost levels—as explained below, the monopoly rents accrue to the utility, at the expense of broadband subscribers (including the utility’s own ratepayers) and society more generally.<sup>8</sup> Marginal cost pricing, however, would still fairly compensate the utility while promoting efficiency.

As a surrogate for the naturally occurring economic forces at play in a competitive market, effective economic regulation ideally would aim to better allocate resources so as to achieve allocative and productive efficiencies in the final product market for broadband service as well, *i.e.*, overall utility-maximizing levels of investment in, supply of, and demand for broadband services. In doing so, it would yield benefits to consumers and avoid “deadweight” efficiency losses to society—a loss of value to consumers that is over and above the increase in monopoly profits directly associated with higher-than-competitive prices.<sup>9</sup> Skillful regulatory intervention is especially critical in unserved/rural areas where the negative impacts of market distortions are magnified by inherently challenging structural market conditions, and that intervention is all the more necessary in light of the pressing need to close the digital divide.

**B. Application of Economic Efficiency Principles to Make-Ready Charges as Applied to Third-Party Attachers for Pole Replacements**

One extremely important economic insight highlighted by the NCTA petition is that in applying ‘cost causation’ economic logic to the make-ready context the activities or costs in question are not solely determined by temporal proximity—the pole-owning utility’s costs must be viewed from a long-term dynamic, systemic perspective in order to understand their relation to marginal cost and economic efficiency. In other words, to properly apply the “but for” or “avoidable cost” principle of cost causation to make-ready charges a regulator should not assume that all the activities or costs incurred immediately after a request for a new attachment is made

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<sup>8</sup> While economists may disagree on many things, there is perhaps one central tenet upon which there is solid agreement, and that is the notion that rates that recover the marginal costs of production (but not more) are economically efficient and subsidy-free. See, e.g., Paul A. Samuelson, *Economics: Tenth Edition* at 462-63 (McGraw-Hill Book Co., 1976); Bridger M. Mitchell, “Costs and Cross-Subsidies in Telecommunications,” *The Changing Nature of Telecommunications Infrastructure*, National Academy Press, Washington, DC, 1995; *Alabama Power*, 311 F.3d at 1369-70.

<sup>9</sup> See Nicholson and Snyder, *Microeconomic Theory*, *supra* note 6 at 498-500 (explaining deadweight loss effects of monopolization and misallocation of resources).

were in fact caused by that request. Yet this is a condition implicitly assumed in the current manner that utilities—largely in the absence of regulatory oversight—are applying that principle to make-ready charges associated with pole replacements.

As a general matter, utilities do not take a long-term perspective in assessing what proportion of make-ready costs for pole replacements would have occurred anyway at some future date in the absence of a request. An appropriate application of the underlying economic principle of cost causation to make-ready charges would take into consideration the time frame within which the utility would have replaced the pole anyway, and a regulator informed by that proper application would apportion incremental or “but for” costs as between the utility and attacher in light of that understanding.<sup>10</sup>

It is in this key context that the NCTA petition correctly recognizes the appropriate economic frame of reference for determining whether the costs associated with a pole replacement are properly considered avoidable by the utility (and hence an incremental or “but for” cost to the utility attributable to the attacher) must be informed by a dynamic time frame sufficiently long enough to factor in the utility’s own replacement program for the poles in question.<sup>11</sup>

That frame of reference also recognizes the economic gains or utility “betterment” bestowed upon the utility as a consequence of pole replacements. This ‘betterment,’ as it has been referred in the pole attachment regulatory context,<sup>12</sup> is the productive value enjoyed by the utility

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<sup>10</sup> See Nicholson and Snyder, *Microeconomic Theory*, *supra* note 7 at 348-49, 405, 747 (noting that long-run perspectives allow for more efficient, flexible supply responses and input reallocations); *id.* at 418-20 (explaining that a perfectly competitive market is one in a long-run competitive equilibrium marked by zero economic profits). Applying too short a time frame by definition locks in production constraints that prevent the realization of the most efficient outcome—inappropriately so in the case of replacement poles given the routine replacement of poles as part of normal utility operations.

<sup>11</sup> See NCTA Petition at 8, 18.

<sup>12</sup> See NCTA Petition at 10 & n.17; see also *Response of Pennsylvania Electric Company to Pole Attachment Complaint Filed by Zito Media, L.P.* at 23-24, FCC Proceeding No. 17-316, File No. EB-17-MD-006 (dated Dec. 13, 2017), available at <https://www.fcc.gov/ecfs/filing/1214136309>; *id.*, at Attachment H (Penelec email acknowledging that the cost of pole replacements associated with the utility’s betterment was not to be imposed on the attacher and that Penelec had imposed such charges by mistake during the pole attachment process until identified by attacher); *Adoption of Rules for the Regulation of Cable Television Pole Attachments*, Second Report and Order, 72 F.C.C. 2d 59, at ¶ 29 (1979):

*Non-recurring costs.* Such costs, defined in a general functional fashion, are those that are expended by the utility to prepare utility poles for CATV attachments. As indicated in the legislative history, pre-construction, survey, engineering, make-ready, and change-out (non-betterment) costs are included in additional costs but only to the extent they are out-of-pocket expenses specifically attributable to CATV attachments or facilities... In short, costs which are incurred to prepare pole plant for CTAV attachments are includible, but repairs or upgrading of the plant of other users are

from the replacement pole, which can be quite significant. As discussed later in this paper, these gains include operational benefits, strategic benefits, rate base benefits, revenue-enhancing opportunities, and a number of other cost savings/expense mitigation.

From an economic perspective, costs mitigated by one party are the mirror image of benefits received by the other party and should be treated accordingly. This means that with respect to cost causation, the costs incurred by one party to a transaction that would not exist “but for” the actions of the other should be attributed to the causing party. This also means that the gains enjoyed by one party to a transaction that would not exist “but for” the actions of the other should *also* be attributed to the causing party. In other words, the “betterment” enjoyed by the utility brought about by the replacement pole that would not exist but for the timing of the attachment request should be attributed to the attacher for economic purposes.

While the underlying economic theory is indifferent as to how these factors are precisely categorized and accounted for (*i.e.*, economic theory does not care whether betterment is thought of as an offset to the costs attributable to the attacher or recorded as a positive benefit attributable to the utility), economic theory is far from indifferent as to the necessity of *taking these factors into consideration* in determining the efficient level of cost responsibility attributed to the two parties as necessary to achieve an economic outcome that maximizes social welfare. A social welfare-maximizing economic framework examines the total effect of an action—not just who or what is *harmed* by the action, but also what was *gained* by the action.<sup>13</sup> While the social economic welfare literature focuses more on what it terms ‘external diseconomy’ situations (where there is a “fall in the value of production elsewhere for which no compensation is paid by the business” who benefits), the basic economic reasoning at issue there applies to situations like this one regarding pole replacements where an economic unit (the attacher) takes an action (the request) that results in unrecognized cost savings or gain in production capacity elsewhere that must be properly taken into account in assessing efficiency and social welfare.<sup>14</sup>

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not. Therefore, we believe these non-recurring costs, which are of a one-time only nature, are directly reimbursable by the CATV operator and should not constitute any component of ‘additional costs’ for purposes of Section 1.1409(c).

<sup>13</sup> See Ronald Coase, *The Problem of Social Cost*, 3 J. Law & Econ. 1, 44 (1960) (“In devising and choosing between social arrangements we should have regard for the total effect” and not just individual pieces of it).

<sup>14</sup> See William K. Swank, *Inverse Condemnation: the Case for Diminution in Property Value as Compensable Damage*, 28 Stan. L. Rev. 779, 791 (1976) (“Essentially an external diseconomy is a harmful effect on one or more

In the absence of detailed regulatory oversight, the calculation of make-ready charges has been largely left to the mostly unfettered discretion of the utility. In drawing up invoices for those activities, utilities have typically based their cost calculations on a myopically short time frame that excludes any consideration of offsetting gains (or mitigated costs) and treats a make-ready project as an exogenous imposition on the utility rather than a facility improvement with joint economic value to *both* the utility and the attacher. The result of this utility myopia is that high make-ready costs well in excess of the competitive level are externalized onto the attacher, on the tacit and incorrect assumption that the attacher is the only party who obtains value from the improvement. To ignore this practical economic reality, as heretofore been the case, has allowed utilities to impose excessive, inefficiently high levels of make-ready charges on attachers designed to shift the full cost responsibility of the replacement pole onto the attacher—going so far in some cases to include the costs of remedying pre-existing problems and all costs associated with replacements.<sup>15</sup> As discussed further below, the prevailing make-ready cost allocation practices of utilities regarding replacement poles inherently leads to a level of broadband deployment and service availability far less than desired by consumers or optimal from a social welfare economics perspective, particularly in unserved/rural areas.

In the parlance of social welfare economics, economists define efficiency as an optimal state where it is impossible to improve the economic situation of one party without making another worse off.<sup>16</sup> The Commission’s rules seek to guide pole owners and attachers towards this efficient

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persons that emanates from the action of a different person or firm” and whose impact “is not reflected in the private cost” of the activity that causes it); see also Coase, *Social Cost*, 3 J. Law & Econ. at 40 (discussing private and social products).

<sup>15</sup> See, e.g., NCTA Petition at 7 n.11 (citing *Knology, Inc. v. Georgia Power Co.*, Memorandum Opinion and Order, 18 FCC Rcd. 24615, 24629-32 ¶¶ 36, 40 (2003)). I have also encountered instances where vague utility engineering standards would allow utilities to impose noticeably more stringent expectations on attachers than the otherwise applicable safety codes and engineering requirements would call for, such that attachers are placed at real risk of paying for costs that the attacher was not responsible for creating. See Testimony of Patricia Kravtin on behalf of the Ohio Cable Telecommunications Association at 58-61, *In the Matter of the Application of Duke Energy Ohio, Inc. for an Increase in Electric Distribution Rates*, Case No. 08-709-EL-AIR (Pub. Util. Comm’n of Ohio, filed Feb. 26, 2009), available at <https://bit.ly/34G8h5h>.

<sup>16</sup> In the *2011 Pole Attachment Order*, the Commission explained:

The allocation of goods is optimal in a perfectly competitive market. That is, no buyer can be made better off by reallocating resources to produce a different mix of goods without making other buyers worse-off. See, e.g., WALTER NICHOLSON, MICROECONOMIC THEORY, BASIC PRINCIPLES AND EXTENSIONS 512–13 (2d ed. 1978).

See *Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, WC Docket No. 07-245, GN Docket No. 09-51, Report and Order and Order on Reconsideration, 26 FCC Rcd. 5240, 5301, ¶ 143 & n.425 (Apr. 7, 2011) (“*2011 Pole Attachment Order*”), *aff’d sub. nom. Am. Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183 (D.C. Cir. 2013) (“AEP”).

state by ensuring that all parties that directly benefit or gain from the modification share proportionately in the cost of that modification, commensurate with that benefit or gain. Thus, both economics and regulation point towards the same outcomes here—efficiency and marginal cost pricing—the outcomes that would occur if the market for pole attachment space were perfectly competitive.

Refining prevailing utility make-ready cost allocation practices in the particular context of pole replacements in unserved areas to better align with underlying economic efficiency principles is the essence of what the NCTA petition is seeking to accomplish; it articulates a properly balanced, efficient allocation of costs in proportion to or commensurate with the benefits in that context by recognizing that in the majority of cases the new attacher merely advances the *timing* of a future pole replacement and should compensate the pole owner accordingly.<sup>17</sup>

That compensation, as grounded in economic principles, would consist of the set of additional temporally-related costs associated with the advancement of the existing pole's retirement, rather than a simple measure of the total replacement costs for the new pole. This is because the utility is the primary recipient of the value of the replacement; the utility receives the enhanced productive capacity or value of the upgraded plant (inclusive of associated cost savings). It is also because the utility, in the absence of the request, would have inevitably needed to replace that facility anyway at its own cost—the request merely made the utility deviate from its otherwise applicable pole replacement schedule.

Any movement away from the properly balanced equilibrium that the NCTA petition recommends be applied to replacement costs would lead to a cost responsibility imbalance, in a cost-causative sense, introducing inefficiencies and investment-inhibiting distortions into the marketplace. The economic standard for an optimal, economically efficient market, governed by cost causation principles and the absence of cross subsidy,<sup>18</sup> is that the utility should be no worse off in real terms after hosting a pole attachment than it would be prior to the attachment request. This is *not* the same as saying that the utility's cash position and account balances should be

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<sup>17</sup> See NCTA Petition at 18, 23-24.

<sup>18</sup> This is essentially the same standard the Commission observes under legal just compensation principles. See *id.* at 5300, ¶ 142 & n. 421, citing to *Alabama Power*, 311 F.3d. at 1370 (“Legal precedent has established that a pole attachment rate above marginal costs provides just compensation, and marginal and incremental cost pricing can be an appropriate approach to setting regulated rates.”).



restored to their pre-request levels by the attacher—what it means in an economic sense is that the utility should be indifferent between its overall economic position before the request (with its existing facilities) and its overall economic position after the request (with the new facilities) because the attacher has compensated it for all of the replacement costs that did not provide the utility with corresponding economic betterment value.

The proper economic calculus (that is, one designed to achieve allocative and productive efficiencies and the maximization of overall societal welfare) takes into account the totality of all economic costs and benefits (including cost savings) to the respective parties, as measured in a properly balanced manner and across the appropriate time frame. These costs and benefits include:

- both recurring and nonrecurring charges paid by the attacher;
- the intrinsic nature of the avoidable costs causally linked to the attacher (*i.e.*, the temporal costs of deviating (shifting forward) the inevitable retirement/replacement of the existing pole that otherwise would have ensued in the normal course of utility operations); and,
- the real economic gains or betterment value the utility enjoys from the replacement pole.

In sum, as long as charges paid by the attacher—including both recurring and non-recurring charges—fully compensate the utility for the true cost causative set of costs as described above, the utility is made whole. By contrast, if the utility charges new attachers the total replacement costs of a new pole facility (without taking into account the corresponding betterment), it will be made *better off* by avoiding a cost that it would otherwise be responsible for in the future. Not only is that additional cost alleviation not required, societal welfare is decidedly worse off if the attacher is assigned a cost responsibility in excess of its efficient proportionate share, because the utility's excess pricing of the pole attachment input will lead to the ultimate mispricing and availability of the attacher's broadband service. These pricing and other associated market distortions work to the detriment of the consuming public, and especially in areas of unmet demand, with no offsetting gains to overall societal welfare.

**C. The Principle of Cost Causation, Embraced by the Commission Pursuant to Section 224 Pole Regulation as Well as in Other Cost Allocations Contexts, Is Grounded in Economic Efficiency**

As described above, the concepts of marginal cost pricing and economic efficiency are inextricably tied and have a long and established tradition in the regulation of public utilities, where due to the natural monopoly nature of utilities,<sup>19</sup> the market cannot be relied upon to provide an efficient allocation of societal resources. To obtain desirable efficient outcomes, price regulation must serve a proxy role for competitive market forces. This role is further magnified for pole attachments given they are essential facilities for which the utility has the opportunity and incentive to price in excess of the efficient, competitive level.

In serving in this capacity, regulators, including this Commission, have developed economic cost allocation tools for translating the theoretical marginal cost standard into practical, implementable cost allocation practices and guidelines, building on a rich body of public utility regulation literature.<sup>20</sup> Under the cost causation principle, costs are assigned to the entities deemed causally responsible—*i.e.*, the entities but for whose existence or action a cost could have been avoided. The most prominent of these tools is the concept referred to as the principle of “cost causation.” As described by the Commission:

That is to say, prices based on cost causation principles enable an allocation or mix of goods to be produced that buyers desire and are willing to pay for and so are socially efficient and enable an efficient firm to recover its costs.<sup>21</sup>

The principle of cost causation has played a front and center role in the FCC’s implementation of Section 224 pole rate regulation over the past four decades since the passage of the Pole Attachment Act of 1978, and in particular, in applying the just and reasonable standard to rate setting primarily in the context of recurring rates, but also in connection with make-ready charges consistent with the Act.<sup>22</sup> In applying the cost causation standard to other terms and

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<sup>19</sup> Utility distribution networks including poles are a classic case of what economists refer to as a “natural monopoly,” meaning “economies of scale are so persistent that a single firm can serve the market at a lower unit cost than two or more firms.” See F.M. Scherer, *Industrial Market Structure and Economic Performance* at 482 (Rand McNally, Chicago, 1980).

<sup>20</sup> See, e.g., J.C. Bonbright, *Principles of Public Utility Rates*, Columbia University Press, 1961.

<sup>21</sup> See *2011 Pole Attachment Order*, 26 FCC Rcd. at 5301 ¶ 143 n.425.

<sup>22</sup> See *id.* at 5322 ¶ 185 n.572 (providing that parties “can seek Commission review of make-ready charges to the extent that they believe such charges are unjust or unreasonable,” and an “attacher [is] responsible only for [the] cost of work made necessary because of its attachments.”).

conditions of access, such as those relating to rearrangement or replacement of facilities, Section 224(i) establishes that a third-party attacher to a pole “shall not be required to bear any of the costs” in connection with an activity “sought by any other entity (including the owner of such pole, duct, conduit, or right-of-way).”<sup>23</sup>

These concepts have also been relied on by the FCC in other regulatory contexts, as well, including its Part 64 rules governing the allocation of costs between regulated and non-regulated activities of the utility. These rules were specifically designed to prevent the cross-subsidization of non-regulated activities, but have general applicability, and have been frequently applied to a wide range of regulatory cost applications. Pursuant to the Part 64 rules, carriers are instructed to assign costs directly to the originator or cost causing unit whenever possible. Carriers are further instructed to allocate indirect costs or common costs that cannot be directly assigned “based upon an indirect, cost causative linkage to another cost category...for which a direct assignment or allocation is available.”<sup>24</sup> These well-established cost allocation guidelines as applied by the Commission are designed to produce efficient, subsidy-free rates. To this end, they expressly prohibit the inclusion of costs directly attributable to another such entity or activity.

As applied in the pole attachments context, the cost causation principle requires identification of costs having a strong, direct causal linkage to pole attachments and pole attachment requests, to be distinguished from those costs whose principal driver is the provision of the pole owner’s core service (most typically electric service). Once those amounts are identified, the next step is to assign a reasonable proportionate share of cost responsibility to the

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<sup>23</sup> 47 U.S.C. § 224(i).

<sup>24</sup> See 47 C.F.R. § 64.901(b)(2)-(3) (Allocation of Costs):

(2) Costs shall be directly assigned to either regulated or nonregulated activities whenever possible.

(3) Costs which cannot be directly assigned to either regulated or nonregulated activities will be described as common costs. Common costs shall be grouped into homogeneous cost categories designed to facilitate the proper allocation of costs between a carrier’s regulated and nonregulated activities. Each cost category shall be allocated between regulated and nonregulated activities in accordance with the following hierarchy:

(i) Whenever possible, common cost categories are to be allocated based upon direct analysis of the origin of the cost themselves.

(ii) When direct analysis is not possible, common cost categories shall be allocated based upon an indirect, cost causative linkage to another cost category (or group of cost categories) for which a direct assignment or allocation is available.

(iii) When neither direct nor indirect measures of cost allocation can be found, the cost category shall be allocated based upon a general allocator computed by using the ratio of all expenses directly assigned or attributed to regulated and nonregulated activities.

attacher for the former but to exclude the latter, as the responsibility of the utility and for which the utility receives compensatory cost recovery under its public utility traditional cost-of-service/rate base regulatory process in another forum. Any costs that are necessary and unavoidable in the provision of the utility's core service (most typically electric service) are properly borne by the utility or its ratepayers. This process recognizes the fundamental point that the utility's network was primarily built and maintained to provide the core utility service, and the cost structure of that service is in many respects separate and distinct from the utility's role as a pole attachment space provider. Rates that allow the core utility service activities to shift onto pole attachment activities an inefficiently high proportionate share of cost responsibility will produce detrimental, market distorting impacts in the downstream broadband and electricity retail markets. Congress recognized this proportionate or 'relative use' allocation issue in its design of the cable rate formula the 1970s:

This allocation formula reflects the concept of relative use of the entire facility. To the extent that a pole is used for a particular service in greater proportion than it is used for another service, the relative costs of that pole are reflected proportionately in the costs of furnishing the service which has the greater amount of use.<sup>25</sup>

The legislative history indicates a similar economic philosophy and intent regarding make-ready charges, which were addressed by the Commission in one of its earliest pole orders in 1987.<sup>26</sup> The Commission cited to comments referencing the specific findings in the 1977 Senate Report about the apportionment of costs “in those instances where it may be necessary for the utility to replace an existing pole with a larger facility in order to accommodate the CATV user”—specifically the finding that “it would be appropriate to charge the CATV user a certain percentage of these pole ‘change-out’ replacement costs,” sometimes referred to as the “nonbetterment costs,” reflecting the costs caused by the CATV attacher, in other words, those costs that were “arising solely by virtue of the CATV occupation of space within the communications space on the pole.”<sup>27</sup> Congress thus viewed nonbetterment costs as the attacher's responsibility, a sound economic conclusion.

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<sup>25</sup> S. Rep. No. 95-580 at 20.

<sup>26</sup> See *In the Matter of Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles*, Report and Order, 2 FCC Rcd. 4387, 4397 ¶ 74 (Jul. 23, 1987), CC Docket No. 86-212 (“1987 Report and Order”).

<sup>27</sup> S. Rep. No. 95-580 at 19.

Conversely, under this same reasoning, the proportion of pole replacement costs that *do* pertain to the ‘betterment’ of the utility (even if the pole attachment precipitated the replacement) is appropriately assigned to the utility. While the Commission declined in the 1987 Order to “adopt any substantive guidelines as to which terms or conditions may warrant a deduction or the quantification of any such deduction,” it specifically took note of this particular Senate finding as one of “a number of terms and conditions [that] have been brought to our attention which should be given close scrutiny in individual complaint cases.”<sup>28</sup>

Accordingly, under the cost causation principle and as Congress recognized, isolating the true nonbetterment costs is critically important, as the principal cost driver for pole costs is the utility’s provision of its core service (most typically electric service), and thus the utility and its electric customers must bear the lion’s share of the costs of the pole. In many different contexts the Commission has recognized this point, including with respect to operating and maintenance expenses,<sup>29</sup> capital investment costs,<sup>30</sup> and in connection with the 2011<sup>31</sup> and 2015<sup>32</sup> updates to

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<sup>28</sup> 1987 Report and Order, 2 FCC Rcd. at 4397 ¶ 74.

<sup>29</sup> With regard to operating and maintenance expenses, the Commission in its 2001 Reconsideration Order reiterated its rejection to requests by utility petitioners to include certain operating and maintenance-related expenses other than those booked to Account 593 for overhead lines (*i.e.*, expenses booked to FERC accounts 580 and 590), “because the costs or expenses reported to these accounts do not reflect a sufficient nexus to the operating expenses and actual capital costs of the utility attributable to the pole or conduit attachment.” See *FCC Consolidated Partial Order on Reconsideration*, CS Docket 97-98/CS Docket 97-151, FCC 01-170, May 25, 2001 (“*FCC Recon. Order*”) at ¶¶ 116-117, 119.

<sup>30</sup> With regard to capital investment costs, the Commission rejected inclusion of certain capital investment costs noting “the accounts suggested by petitioners include capital expenditures which support the utility’s core business function and are not related to the pole costs.” See *id.* at ¶ 123. While the Commission in this specific context was referring to embedded investment accounts other than those booked to account 364 for poles that utilities were seeking to add into the recurring rate formula, the Commission’s application of the cost causation principle in finding these costs demonstrated to “support the utility’s core business function” be allocated to the utility bears directly on the appropriateness of allocating to the utility an appropriate proportionate share of new replacement poles in recognition of their primary use in support of the utility’s core business function and benefits to the utility as advanced in the NCTA petition.

<sup>31</sup> In its 2011 pole proceeding, citing extensively to cost causation principles as basis for its findings, see *2011 Pole Attachment Order*, 26 FCC Rcd. at 5301 ¶¶ 143-144, the Commission introduced and applied specific urban and rural proportionate cost factors (.66 and .44, respectively) to the old Telecom rate formula so that the formula approximated the rate derived under the proportionate use Cable formula, *i.e.*, “generally will recover a portion of the pole costs that is equal to the portion of costs recovered in the cable rate.” See *id.* at 5305 ¶ 151. The Commission also introduced an alternative formula that excludes capital costs from the carrying charge component of the rate calculation consistent with cost causation principles and that was described as a lower bound rate. In practice, as was recognized at the time by the Commission, the alternative formula could produce a rate higher or lower than the statutory formula incorporating both capital and operating costs, and the Commission’s rules allow the utility to base recurring telecom rates at the higher of the two cost causative telecom alternatives. See *id.* at 5299-5306, ¶¶ 138-152.

<sup>32</sup> See *In the Matter of Implementation of Section 224 of the Act; A National Broadband Plan for Our Future*, Order on Reconsideration, 30 FCC Rcd. 13731 at ¶ 1 (Nov. 24, 2015) (WC Docket No. 07-245, GN Docket No. 09-51) (*2015 Order on Reconsideration*). In its 2015 *Order on Reconsideration*, issued in Response to a Petition from NCTA, COMPTel, and tw telecom, inc., the Commission further revised its previously adopted fixed factors to allow these

the Telecom rate formula. As articulated by the Commission, the policies adopted in its 2011 and 2015 decisions were designed “to improve efficiency, reduce potentially excessive costs of network deployment and accelerate broadband buildout, and eliminate the wide disparity between the telecom and cable formulas.”<sup>33</sup>

While the FCC’s embrace of cost causation principles has been more memorialized in the context of the recurring rate formula which has been the subject of numerous rulemakings, investigations and complaint proceedings over the past forty years of rate regulation, from an economic perspective, those principles apply in equal force to make-ready charges. Indeed, in its 2011 Pole Order adopting the significant reforms to the Telecom rate detailed above, the Commission made direct connections between “its existing approach in the make-ready context” to the application of cost causation principles defined by the Commission “if a customer is causally responsible for the incurrence of a cost, then that customer—the cost causer—pays a rate that covers this cost.”<sup>34</sup>

**D. The Economic and Social Stakes of Inefficiently High Pole Attachment Costs, Including Make-Ready Charges, Are Very Great, Particularly in Unserved Areas**

As widely acknowledged, both by this Commission and other regulatory bodies nationwide, pole attachments are a vital input needed for the delivery of new, advanced broadband services and applications. For the reasons explained above, setting rates for pole attachments at economically efficient levels creates a market environment that accurately reflects the economic tradeoffs inherent in broadband infrastructure investment. More monopolistic pricing of pole

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factors to vary in order to bring the Telecom formula into better cost causative alignment with the proportionate-based cable rate formula, noting rates produced by the revised Telecom formula as much as 70 percent higher than cable rates. See *id.* at ¶ 3. These further revisions were also expressly motivated by the Commission’s desire to incent the deployment of broadband infrastructure especially in rural areas, with the Commission noting its concern that subjecting cable operators to higher, inefficient pole attachment rates merely because they “also provide telecommunications services including broadband Internet access could defer investment...which would undermine the Commission’s broadband deployment policy,” particularly in rural areas. See *id.* at ¶ 4. (“We additionally act to support incentives for deployment of broadband facilities, particularly in rural areas.”).

<sup>33</sup> See *2015 Order on Reconsideration*, 30 FCC Rcd. 13731 at ¶ 1; see also *2011 Pole Attachment Order*, 26 FCC Rcd. at 5303-04, ¶147:

In addition to reducing barriers to the provision of new services, reducing the telecom rate can expand opportunities for communications network investment, as discussed in greater detail below. ... We thus conclude that lowering the telecom rates will better enable providers to compete on a level playing field, will eliminate distortions in end-user choices between technologies, and lead to provider behavior being driven more by underlying economic costs than arbitrary price differentials.

<sup>34</sup> See *2011 Pole Attachment Order*, 26 FCC Rcd. at 5301, ¶143.

attachments inefficiently discourages broadband investment, and sacrifices the gains that could and would be achieved from that investment if efficient pricing practices were observed.

Conforming pole replacement pricing practices to economic principles in unserved areas as clarified in the NCTA petition makes much more economic and public policy sense than current, more monopolistic practices. Widespread availability of broadband services at affordable prices is well recognized as essential to the economic and overall well-being of a community. Broadband connectivity at affordable prices is essential for numerous aspects of modern life including health, education, public safety, recreation and culture, commerce, and government, both in the pre-COVID environment and especially now. Accurate pricing of access to broadband bottleneck facilities like poles ensures that these important goals are fairly weighed in investment decisions and broadband deployment is not inefficiently discouraged.

As the Commission has recognized, the need for broadband connectivity in everyday life is particularly acute in less populated areas where other underlying economic factors make broadband services deployment more costly, *i.e.*, where lower population densities result in higher construction costs per capita and fewer subscribers over which to spread high fixed costs. These are all points the Commission first emphasized in its National Broadband Report, but has repeatedly reinforced across a wide range of rulings over the past decade, including in its 2011 Pole Order.<sup>35</sup> Allowing the monopoly pole owners to charge cable operators and other broadband services providers non-recurring charges well in excess of an economically efficient level, perhaps more obviously than any other regulatory policy, will serve to impede private investment that would otherwise expand broadband services in unserved and underserved regions of this country.

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<sup>35</sup> See Federal Communications Commission, *Connecting America: The National Broadband Plan* at 110-111 (Mar. 17, 2010) (Recommendation 6.1), available at <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf>; see also *2011 Pole Attachment Order*, 26 FCC Rcd. at 5298 ¶ 135, 5305, ¶ 150 (adopting differential cost factors for rural versus urban areas, specifically noting the need to mitigate the increased burden of high pole attachment rates on broadband deployment in rural areas):

Given the operation of section 224(e), using the same definition of cost in both types of areas would increase the burden pole attachment rates pose for providers of broadband and other communications services in non-urban areas, as compared with urban areas. Such an outcome would be problematic given the increased challenges already faced in non-urban areas, where cost characteristics can be different and where the availability of, and competition for, broadband services tends to be less today than in urban areas. By defining cost in non-urban areas as 44 percent of the fully allocated costs we largely mitigated that concern...

To the extent broadband providers are able to flow through the higher monopolistic-level pole access costs in selected markets, it will have the effect of raising the cost of broadband and other advance service offerings, thereby reducing the ability of consumers (who include the electric utilities' ratepayers) to afford and enjoy the widely-acknowledged economic and social benefits of affordable access to broadband services in today's information age economy. As a general proposition, and particularly in less populated areas, many poles can be required to serve an individual subscriber, such that the price charged per pole attachment can have a very significant impact on the cost to serve any one broadband subscriber.

The societal and economic development benefits of advanced broadband services are well established,<sup>36</sup> and were a driving force behind reducing and harmonizing pole attachment costs across providers and across the country.<sup>37</sup> Similarly, in the 2015 Open Internet Order, the

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<sup>36</sup> Research has shown that “the main dividing lines for [broadband] access are along socioeconomic dimensions such as income and education,” thus expanding access helps benefit those with fewer socioeconomic advantages. See John B. Horrigan, *Broadband Adoption and Use in America*, FCC Omnibus Broadband Initiative Working Paper Series No. 1 at 3 (Feb. 2010), available at <https://transition.fcc.gov/national-broadband-plan/broadband-adoption-in-america-paper.pdf>.

Expanding broadband access facilitates the greater availability of telemedicine and distance education, increased service sector productivity, and more telework opportunities. Peter Stenberg et al., *Broadband Internet's Value for Rural America*, U.S. Dept. of Agriculture Economic Research Service Report No. 78 at 23-27 (Aug. 2009), available at <https://ageconsearch.umn.edu/record/55944/>. Studies have also indicated that broadband availability has a positive association with employment growth and nonfarm private earnings. See *id.* at 39. Congress is well aware of this connection between broadband service and economic development, finding that expanding broadband facilitates “enhanced economic development and public safety for communities across the Nation, improved health care and educational opportunities, and a better quality of life for all Americans.” 47 U.S.C. § 1301(1).

State policymakers and task forces also recognize that expanding broadband connectivity and access in rural areas yields important benefits and is a key economic development strategy. See, e.g., West Virginia Broadband Enhancement Council, *West Virginia State Broadband Plan 2020-2025* at 2 (Dec. 31, 2019), available at [https://broadband.wv.gov/wp-content/uploads/2020/01/West\\_Virginia\\_State\\_Broadband\\_Plan\\_2020-2025.pdf](https://broadband.wv.gov/wp-content/uploads/2020/01/West_Virginia_State_Broadband_Plan_2020-2025.pdf); Executive Order 01.01.2017.14, “Office of Rural Broadband,” State of Maryland (issued Jun. 27, 2017), available at [https://content.govdelivery.com/attachments/MDGOV/2017/06/28/file\\_attachments/838894/EO%2B01.01.2014.14.pdf](https://content.govdelivery.com/attachments/MDGOV/2017/06/28/file_attachments/838894/EO%2B01.01.2014.14.pdf); Department of Commerce and Consumer Affairs, State of Hawaii, *Hawaii Broadband Strategic Plan* at 98-99 (Dec. 2012), available at [http://cca.hawaii.gov/broadband/files/2015/01/Hawaii\\_Broadband\\_Strategic\\_Plan\\_Dec\\_2012.pdf](http://cca.hawaii.gov/broadband/files/2015/01/Hawaii_Broadband_Strategic_Plan_Dec_2012.pdf).

<sup>37</sup> These points are emphasized in the FCC's 2010 National Broadband Plan, which recommended rates for pole attachments be set as low and as close to uniform as possible (in the vicinity of the current Cable Rate) to support the goal of broadband deployment, and particularly in less densely populated or rural areas where the “impact of these rates can be particularly acute.” *National Broadband Plan*, *supra* note 35 at 110; see also *2011 Pole Attachment Order*, 26 FCC Rcd. at 5298, ¶ 135; *Protecting and Promoting the Open Internet*, Report & Order on Remand, Declaratory Ruling, & Order, GN Docket No. 14-28, 30 FCC Rcd. 5601, 5831, ¶ 478 (Apr. 3, 2015) (“*2015 Open Internet Order*”), *abrogated on other grounds* by 33 FCC Rcd. 311 (2018):

The Commission has recognized repeatedly the importance of pole attachments to the deployment of communications networks, and we thus conclude that applying these provisions will help ensure just and reasonable rates for broadband Internet access service by continuing pole access and thereby limiting the input costs that broadband providers otherwise would need to incur.



Commission described the “‘virtuous cycle’ that drives innovation and investment on the Internet,” referring specifically to “broadband providers invested \$212 billion in the three years following adoption of the [Open Internet] rules—from 2011 to 2013—more than in any three year period since 2002.”<sup>38</sup>

Policies that encourage investment in broadband make good economic sense generally, but especially in unserved areas, as a way of lifting those areas, many of which are depressed financially, out of poverty given the opportunities that affordable access to high quality broadband service affords. The longer these areas lack affordable access, the further behind they fall vis-à-vis other areas of the country, and the cycle of poverty and lack of economic opportunity becomes harder to break. Moreover, there is strong empirical evidence that broadband serves as a key driver of economic growth with significant multiplier effects across economic sectors.

According to research compiled by Internet 2, a non-profit consortium of research and education entities, a 10 percent increase in broadband penetration is associated with up to a 1.5 percent increase in annual per-capita growth, as measured by gross domestic product (“GDP”).<sup>39</sup> Research undertaken by the World Bank and the Public Policy Institute of California further supports the direct association between broadband expansion and positive economic growth indicators including employment growth, job creation, retail sale and tax revenues.<sup>40</sup> Another study conducted by the Brookings Institution that “estimated that a one percentage point increase in broadband penetration would lead to ‘an increase of about 300,000 jobs’ for the U.S. economy as a whole.”<sup>41</sup> A White House Council of Economic Advisors study concluded that broadband access correlates to higher employment rates, especially in rural communities, and that job seekers

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And FCC Chairman Pai recently declared that: “[t]o bring the benefits of the digital age to all Americans, the FCC needs to make it easier for companies to build and expand broadband networks. We need to reduce the cost of broadband deployment, and we need to eliminate unnecessary rules that slow down or deter deployment.” *Infrastructure Month at the FCC*, FCC Blog (Mar. 30, 2017), available at <https://www.fcc.gov/news-events/blog/2017/03/30/infrastructure-month-fcc>.

<sup>38</sup> 2015 *Open Internet Order*, 30 FCC Rcd. at 5603, ¶ 2.

<sup>39</sup> See Internet 2, *Proposals for Building Our Broadband Future* at 3 n.3 (2017), available at [Internet2.edu/media/medialibrary/2017/02/01/Broadband-Policy-Paper-020117.pdf](https://www.internet2.edu/media/medialibrary/2017/02/01/Broadband-Policy-Paper-020117.pdf), (citing Martin Cave, *Spectrum and the Wider Economy* at 7 (2015); Nina Czernich et al., *Broadband Infrastructure and Economic Growth* at 1 (CESifo Working Paper No. 2861, 2009)).

<sup>40</sup> See *id.* at nn.3-4 (citing Christine Zhen-Wei Qiang, et al., *Economic Impacts of Broadband*, in *Information and Communications for Development* at 39, 44-45 (World Bank Group, 2009); Jed Kolko, Public Policy Institute of California, *Does Broadband Boost Local Economic Development* at 22-28 (2010)).

<sup>41</sup> See *id.* at 3 & n.5 (citing Robert Crandall et al., Brookings Institution, *The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data* at 2 (2007)).

who can search for jobs online were re-employed 25 percent faster.<sup>42</sup> That study “also found that 30 million Americans used library internet access to conduct job searches, submit job applications, and engage in job-related training.”<sup>43</sup>

Conversely, the lack of broadband access at affordable prices is associated negatively in connection with these same economic growth indicators and multiplier affects across a community. These empirical associations serve to reinforce the critical role that effective pole attachment regulation can play in bringing down the costs of the vital pole input necessary for broadband expansion, including those pertaining to make-ready for pole replacements, to more efficient, cost causative, just and reasonable levels as outlined in the NCTA petition.

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<sup>42</sup> See *id.* at 3 & n.6 (citing Council of Economic Advisors, “The Digital Divide and Economic Benefits of Broadband Access” (Mar. 2016), available at [https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160308\\_broadband\\_cea\\_issue\\_brief.pdf](https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160308_broadband_cea_issue_brief.pdf)).

<sup>43</sup> See *id.* at 3.

## **Part II: The Critical Need to Conform Make-Ready Charges for Pole Replacements to Efficient, Just and Reasonable, Broadband-Promoting Levels Particularly in Unserved Areas**

In response to the NCTA petition, the Commission can better conform make-ready charges for the costs of pole replacement in unserved/rural areas to economic cost causation principles and achieve a more efficient path forward for rural broadband deployment where broadband providers can deliver great societal benefit to unserved customers, yet face a host of other challenges. Make-ready charges raise the same efficiency and market distortion concerns, and pose similar questions as to how best to proportion cost responsibility between the pole owner and an attacher in an economically fair, balanced, just and reasonable manner as have arisen and been addressed by the Commission in connection with the recurring rates in 2011 and 2015. The Commission’s purpose in adopting those policies was to promote the “overarching goal to accelerate deployment of broadband by removing barriers to infrastructure investment” particularly in rural areas, which it found best achieved “[b]y keeping pole attachment rates unified and low.”<sup>44</sup> The same opportunity is also available here in connection with make-ready charges for pole replacements.

### **A. Current Utility Practices Regarding Pole Replacement Cost Allocations Are Inefficient, Allocating to Attachers a Disproportionately High, Unjust and Unreasonable Percentage of Costs that Would Be Inevitably Incurred by the Utility**

Today, when a request for a new pole attachment by a third-party attacher is deemed by the pole owner to necessitate the changeout or replacement of an existing utility pole and/or the rearrangements of wires on the poles, communications attachers are often required to make substantial payments to pole owners in the form of make-ready charges to the utility. These charges are typically based on the fully loaded cost of labor and materials to install a new pole, as well as the costs to remove the existing pole, as determined by the utility at its own discretion, and typically on a take it or leave it basis.<sup>45</sup>

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<sup>44</sup> See *2015 Order on Reconsideration*, 30 FCC Rcd. 13731 at ¶ 4; see also *2011 Pole Attachment Order*, 26 FCC Rcd. at 5243-44 ¶ 8, 5303 ¶ 146.

<sup>45</sup> See *Crown Castle Fiber LLC v. Commonwealth Edison Co.*, Complaint at ¶ 64, FCC Docket EB 19-169 (filed Jun. 19, 2019), available at <https://www.fcc.gov/ecfs/filing/106190301602914>:

“As of April 30, 2019, ComEd had sent Crown Castle invoices alleging that the cost to replace the 862 red tagged poles for fiber attachments is \$11,625,206” or an average make-ready charge of approximately \$13,500 per replacement pole.

Because utilities set make-ready charges in the general absence of regulatory scrutiny, utilities have both the incentive and opportunity to set make-ready charges at levels that recover more than an economically efficient or cost causative attribution of cost. Under current rules, attachers may be charged make-ready fees for a pole change-out that the utility would have made in the absence of the cable attachment either at the present or some prospective date in the near to immediate future, or the cable company may be charged costs in excess of those actually incurred due to the attachment, especially after all the loadings are applied.

A third-party attacher has effectively no practical, feasible alternative to paying the make-ready charges: the alternatives of going underground is often prohibitively high, and as is well established, the building of a duplicative network of poles simply not feasible. In theory and in practice, the utility as monopoly owner of the pole network has extraordinary leverage over the attacher. High make-ready fees meet the classic industrial organization textbook definition of a barrier to entry,<sup>46</sup> and attachers' real-life experience bears that out.<sup>47</sup>

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See also *Fiber Technologies Networks, L.L.C. v. Baltimore Gas and Electric Co.*, Complaint at ¶¶ 42-44, FCC Docket No. EB-14-MD-006 (filed Apr. 10, 2014) (describing initial pole replacement cost estimate for 157 poles of \$3,931,000 (or \$25,038/pole) and a revised estimate for 105 poles of \$1,682,000 (or \$16,019/pole)). By comparison, bare wood pole costs for the average joint use pole have been estimated in the range of \$400 to \$700 new. See Michelle Connolly, *The Economic Impact of Section 224 Exemption of Municipal and Cooperative Poles*, July 12, 2019, submitted by NCTA Re: Broadband Deployment Advisory Committee, GN Docket No. 17-83, Wireline Infrastructure, WC Docket No. 17-84, Wireless Infrastructure, WT Docket No. 17-79, at 9 & n.13.

<sup>46</sup> See Joe S. Bain, *Barriers to New Competition* (Cambridge, Mass.: Harvard University Press, 1965); see also George J. Stigler, *The Organization of Industry* (Homewood, Il.: Richard D. Irwin, 1968); C.C. von Weizsacker, "A Welfare Analysis of Barriers to Entry," *The Bell Journal of Economics* (Autumn 1980); W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., *Economics of Regulation and Antitrust* at 159 (2d Ed., The MIT Press, Cambridge, Mass., 1995).

<sup>47</sup> Overstated and high make-ready fees inhibit the provision of telecommunications services by interposing an economic barrier to entry and conferring competitive disadvantage, not unlike the kind of entry barriers that in other contexts the Commission has found inconsistent with competition and efficiency. See *In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, FCC 18-111, 33 FCC Rcd. 7705, 7788 ¶ 162 & n.594 (Aug. 3, 2018) ("*Third Wireline Deployment Order*") ("We exercise that authority in this Declaratory Ruling to make clear that express and de facto moratoria violate Section 253(a) as legal requirements that 'prohibit or have the effect of prohibiting' the provision of telecommunications service."); see also *In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment; Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, FCC 18-133, 33 FCC Rcd. 9088, 9102 ¶ 35 (Sept. 27, 2018) (WT Docket No. 17-79; WC Docket No. 17-84), *petition granted in part on other grounds*, 2020 WL 4669906 (9th Cir., Aug. 12, 2020):

In this Declaratory Ruling, we first reaffirm, as our definitive interpretation of the effective prohibition standard, the test we set forth in *California Payphone*, namely, that a state or local legal requirement constitutes an effective prohibition if it 'materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.' We then explain how this "material inhibition" standard applies in the context of state and local fees and aesthetic requirements. In doing so, we confirm the First, Second, and Tenth

As typically calculated by utilities, these make-ready charges seek to shift 100% of the total cost responsibility of the pole replacement from the utility onto the attacher (including removal and disposal cost of the old pole, purchase price and installation cost of the new pole, and cost to transfer utility facilities to the new pole)—notwithstanding: (1) the pole would be replaced by the utility over the normal course of operations to meet the utility’s own operational needs to meet growth, in response to damage or other exogenous events, as part of the utility’s normal and routine cyclical capital asset replacement program tied to the average service life of the asset, or on an even more accelerated basis in conjunction with the increasing number of pole resiliency and hardening programs nationwide; and (2) the numerous cost savings, revenue enhancements, and other benefits enjoyed by the utility as a result of the earlier pole replacement associated with the hosting of a new third-party attachment.<sup>48</sup>

As described in the first section of this report, economic efficiency is maximized when pricing more closely approximates marginal costs. When costs are allocated at levels greater than those truly avoidable following the objective, economic principles described above, there is a shifting of resources away from an economically efficient outcome and less than optimal supply of and demand for the good or service in question ensues to the detriment of consumers and overall societal welfare. The problem at hand, as articulated in the NCTA petition, is the current inefficient pricing practice of pole owners with respect to make-ready charges for pole replacement cost that seek to shift 100% of the total cost responsibility of the pole replacement onto third-party attachers.

The current pricing practice with regard to make-ready for pole replacements is inefficient, first and foremost, because it fails to take into consideration the utility’s disproportionate share of the economic gains from that replacement in the form of “betterment” directly attributable to the new attacher request. The crux of the problem is the utility’s myopic framing of the cost allocation calculus based on the shortest of short-run time frames, *i.e.*, the static point of time of the

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Circuits’ understanding that under this analytical framework, a legal requirement can “materially inhibit” the provision of services even if it is not an insurmountable barrier.

See also, e.g., *In the Matter of California Payphone Association Petition for Preemption of Ordinance No. 576 NS of the City of Huntington Park, California Pursuant to Section 253(d) of the Communications Act of 1934*, Memorandum Opinion and Order, FCC 97-25, 12 FCC Rcd. 14191, 14206 ¶ 31, 14210 ¶ 42 (Jul. 17, 1997) (CCBPol 96-26) (“In making this determination, we consider whether the Ordinance materially inhibits or limits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.”).

<sup>48</sup> See discussion below at pages 34-36.

attachment request. Applying an appropriate time frame more aligned with the service life of the asset brings the aforementioned “betterment” factors attributable to the attachment request into the economic calculus consistent with fundamental principles of economic efficiency and social welfare maximization, either as realizable “benefits” or offsetting “cost savings” to the pole owner.

Tying the definition of a just and reasonable cost to a more economically appropriate, dynamic timeframe would causally attribute to the attacher a more limiting set of costs reflecting the true unavoidable costs incurred by the utility consistent with the economic reality of poles—namely the additional temporal costs incurred by the utility that are causally linked to the attacher’s precipitation of the pole replacement. Current practice attributes the total costs of the replacement pole, despite the economic reality that the small subset of poles subject to early replacement in connection with the third-party attachment request would be replaced in due course, independent of the existence of the attacher, as part of the utility’s core service operations—albeit at a prospective date.

As an economic matter, the ultimate replacement of the pole by the utility is an inevitable event. The event could occur at a later point in time either toward the end of the asset’s service life in response to the natural obsolescence or wear and tear or degradation of the pole over time, or precipitated much earlier, but it could also occur close to contemporaneously with the attachment request.<sup>49</sup> Other precipitating factors unrelated to the new attachment request that

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<sup>49</sup> See, e.g., before the New York State Public Service Commission Niagara Mohawk Power Corporation d/b/a National Grid *Proceeding On Motion Of The Commission As To The Rates, Charges, Rules And Regulations Of Niagara Mohawk Power Corporation For Electric And Gas Service* Testimony and Exhibits of: Electric Infrastructure and Operations Panel Exhibit (EIOP-19), 376 – 684: September 2011 Asset Condition Report, Book 31 at I-1 (submitted Apr. 2012) (emphasis added):

*The purpose of evaluating the condition of assets is to determine those assets whose condition necessitates their replacement before their performance negatively impacts our ability to provide safe and adequate service. Additionally, an asset’s useful service life may include several considerations, including: the safe operation of equipment, obsolescence, and the inability of an asset to operate as designed. Notably, some elements of the T&D system were installed nearly a century ago and, based upon industry knowledge and experience; certain classes of assets are at or past the end of their projected useful service life. While age is not dispositive of the condition of an asset, it is often used to parse the population of assets to identify areas where condition may be a concern. Similarly, while it is not necessarily the case that every asset should be replaced at the end of its projected service life, in some cases the relative age of National Grid’s T&D facilities (i.e., power transformers) increases the likelihood that an element will fail when stressed. Thus, an asset’s projected service life is sometimes used to identify assets requiring further engineering analysis and, in asset planning, it is a factor that can help predict the volume of assets that will require replacement in the future.*

See also *id.* at I-4 (“Typically 2%-4% of poles inspected are identified as needing replacement. This equates to over 6,000 poles identified per year as requiring replacement and these replacements are scheduled within a three year horizon”); *id.* at II-16 (emphasis added):

would result in the near or immediate term would include the replacement of poles due to damage from natural occurring acts of nature such as storm or wildfire damage or accidents, or as part of increasingly common pole resiliency or hardening programs as approved or mandated by a state regulatory authority,<sup>50</sup> or in connection with a utility-initiated smart grid<sup>51</sup> or modernization program.<sup>52</sup>

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Condition and Performance Issues: National Grid inspects and treats the ground line of wood poles and structures on a 10 year cycle. In addition, routine visual inspections of the entire structure are conducted once every five years. Wood poles and structures that fail to meet the requirements of the NESC are classified as ‘rejects.’ Severely deteriorated wood poles and structures are classified as ‘priority rejects.’ In general, reject poles and structures have two-thirds or less of their original design strength. The greatest risk from reject poles and structures is the likelihood of failure during severe weather conditions. Failures can hamper service restoration efforts, increase outage durations and raise public safety concerns. Priority reject poles and structures potentially can fail during ‘normal’ weather conditions. For this type of reject pole, the residual strength may be below one-third of its original design strength. *It is important to replace these poles and structures expeditiously as the safety and reliability risks from priority rejects are significant.*”

<sup>50</sup> See, e.g., *Application of the Connecticut Light and Power Company d/b/a Eversource Energy to Amend its Rate Schedules*, Pre-filed testimony of Kenneth B. Bowes at 38 (Conn. Pub. Util. Reg. Auth. Docket No. 17-10-46, submitted Nov. 22, 2017) (stating that in addition to replacing shorter poles with stronger taller poles, the company is installing “cross-arms made of stronger, man-made composite materials rather than wood”); *Application of the Connecticut Light and Power Company for Approval of its System Resiliency Plan — Expanded Plan*, Decision at 2, 7, 8 (Conn. Pub. Util. Reg. Auth. Docket No. 12-07-06RE01, June 3, 2015); Public Service Electric and Gas Co., *Energy Strong II Program Filing*, Docket Nos. EO18060629 and GO18060630, Direct Testimony of Edward F. Gray, Attachment 2 at 23, 25 (N.J. BPU, filed June 8, 2018) (outlining, as part of larger safety, reliability, and resiliency efforts, a subprogram that would replace approximately 7,100 poles along 450 miles of circuits, specifically targeting “smaller diameter poles that are greater than 30 years of age” and other “aged facilities”), available at <https://nj.pseg.com/aboutpseg/regulatorypage/-/media/6DCDE89354844F93975C0DA2D98825C6.ashx>.

<sup>51</sup> See, e.g., *Before the Public Utilities Commission of Ohio, Case Nos. 16-481-EL-UNC, 17-2436-EL-UNC, 18-1604-EL-UNC, 18-1656-EL-ATA*, Stipulation and Recommendation at 2 (Nov. 9, 2018) (“...the stipulation provides for electric distribution grid modernization initiatives that will improve system reliability, enable faster restoration of services after outages, improve voltage conditions on the distribution system, allow customers to make more informed choices about energy usage, facilitate access to customer data by authorized competitive retail electric service providers, and better enable the Companies to make future electric distribution grid modernization investments”).

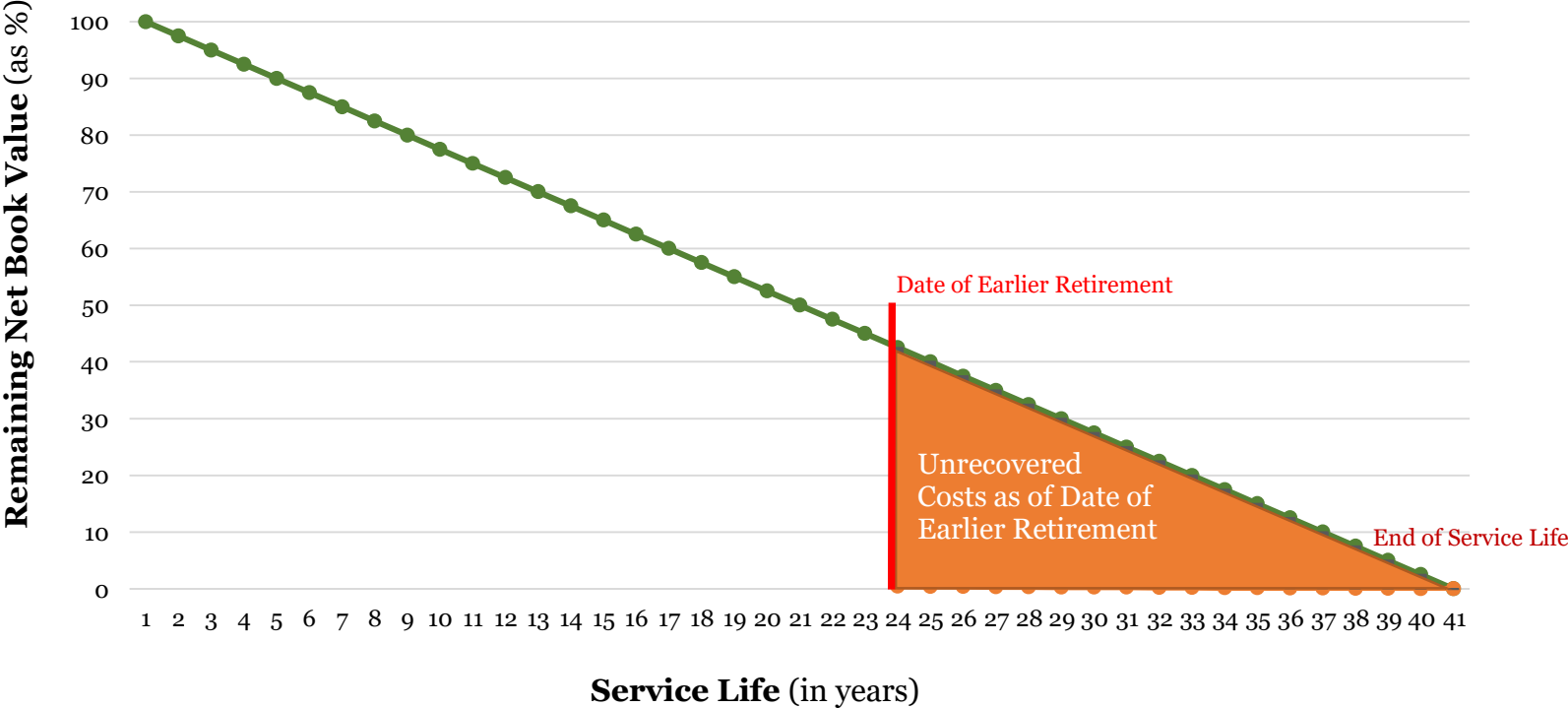
<sup>52</sup> See, e.g., *Before the Public Utilities Commission of the State of California, SDG&E (U 902 M), 2019 General Rate Case, A.17-10007/008*, Exhibit SDG&E-14-R, Direct Testimony of Alan F. Colton (Electric Distribution Capital) at AFC-85 (Dec. 2017) (“The plan spans 27 years, prioritized by the replacement of 4kV substation and circuits of the highest risk, as determined by various operational factors, and measured as a ratio of enterprise benefits to cost. This budget incorporates mitigation of potential safety risks identified through RAMP in the early years of the program. Construction will include but not be limited to *changing poles, cross-arms*, conductors, insulators, transformers, switches, pad-mounted equipment, subsurface structures, and other equipment to accommodate modern 12kV construction with advanced distribution automation and volt-var control (e.g., conservation voltage reduction [CVR] capabilities)” (emphasis added)); Florida Power & Light Company, *2020-2029 Storm Protection Plan*, Exhibit MJ-1 at 7-8, 10 (Fla. P.S.C. Docket No. 20200071-EI, filed Apr. 13, 2020) (describing FPL’s “eight-year pole inspection cycle for all wood distribution poles” and that FPL inspects approximately 150,000 poles every year), available at <http://www.psc.state.fl.us/library/filings/2020/01913-2020/01913-2020.pdf>; *id.* at 10 (“FPL’s Commission-approved distribution pole inspection program has facilitated the replacement and/or strengthening of over 140,000 distribution poles since it was first implemented in 2006 and has directly improved and will continue to improve the overall health and storm resiliency of its distribution pole population.”); *id.* at 11 (reporting annual average pole program costs of between \$51-\$61 million).

Under generally accepted accounting principles, utilities are allowed for tax and regulatory purposes to write down the cost of their assets over the assets' average service lives in recognition of the loss in service value due to the "consumption" or prospective retirement of the asset over time by virtue of "wear and tear" and/or the natural obsolescence of the plant in the course of service as the plant matures in age. Accordingly, asset values decline over time as depreciation expense (an accounting allocation/accrual, not an actual cash outlay of the utility) is recognized in each period and accumulated on the books of the utility as the asset approaches the end of its normal useful service life to the utility. From a cost-causation perspective, there is no net impact on the utility's depreciation accrual due to pole attachments. Both the original purchase of the pole asset, its consumption over time, and its replacement are driven by the utility's *provision of core service*, be it electric (or telephone) service.

As shown in **Figure 1** below, the younger the pole subject to replacement in connection with an attachment request (compared to the pole's average service life), the higher the net



Figure 1:  
Remaining Net Book Value of Plant Over Life of Asset



investment value<sup>53</sup> remaining on the utility's books that would be left unrecovered or "stranded" due to the earlier-than-planned retirement. Conversely, for poles closer to the end of their average service life, the lower the existing net book value of the replaced pole remaining on the utility's books that would be left unrecovered. **Figure 1** above represents this portion of unrecovered costs as the area under the curve as of the date of the earlier retirement, showing the costs that would otherwise have been recovered from utility customers and attachers in the later or out-years of the life of the asset.

In general, poles are long-lived assets, with average service lives ranging from 25 to 50 years, if not longer.<sup>54</sup> There is evidence to suggest that many utilities deferred pole replacement activities, with the result that many poles in current utility inventory are past their normal service lives.<sup>55</sup> This may have led to a number of aggressive pole replacement/upgrade programs around the country that now aim to replace aging plant and to meet the current and growing needs of core electricity operations. Trends in electric utility pole investment booked to Account 364 for Poles, Towers, and Fixtures, in recent years confirm dramatic increases in that account over and above regional construction cost trends. These trends are illustrated in **Figure 2** below.<sup>56</sup> Again, from a cost causative perspective, the growth trends in Account 364 are driven by the utility's provision of its core electric service and the growing requirements to provide a robust and resilient primary

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<sup>53</sup> Defined for purposes of this example as the gross plant value less accumulated depreciation. Simple straight-line depreciation is used in this example.

<sup>54</sup> Utility poles often last for several decades, but like any other physical utility plant must eventually be replaced due to sudden damage or routine degradation. See NCTA Petition at 6 & n.9 (noting utility data suggesting an average service life for poles of around 44-50 years); Pacific Gas and Electric Co., "Facts about PG&E Pole Management and Maintenance" (Nov. 8, 2017) ("Poles in PG&E's service area average 39 years of age"), available at <https://www.pgecurrents.com/2017/11/08/facts-about-pge-pole-management-and-maintenance/>; Florida Power & Light Company, *2020-2029 Storm Protection Plan* Exhibit MJ-1 at 7-8, 10 (Fla. P.S.C. Docket No. 20200071-EI, filed Apr. 13, 2020) (describing FPL's "eight-year pole inspection cycle for all wood distribution poles" and that FPL inspects approximately 150,000 poles every year), available at <http://www.psc.state.fl.us/library/filings/2020/01913-2020/01913-2020.pdf>.

<sup>55</sup> See, e.g., NCTA Petition at 6 & n.9 (citing study of Los Angeles Dept. of Water and Power finding "that 30 percent of poles [are] already beyond their 65-year service life and in need of replacement"); Los Angeles Dept. of Water and Power, *LADWP 2018-19 Power Infrastructure Plan* at 4 (Oct. 2019) (chart showing that "the majority of LADWP poles were installed in the 1940s through the 1960s" meaning that "[o]ver 65% of poles are at least 50 years old"), available at <https://www.ladwpnews.com/ladwp-2018-19-power-infrastructure-plan/>.

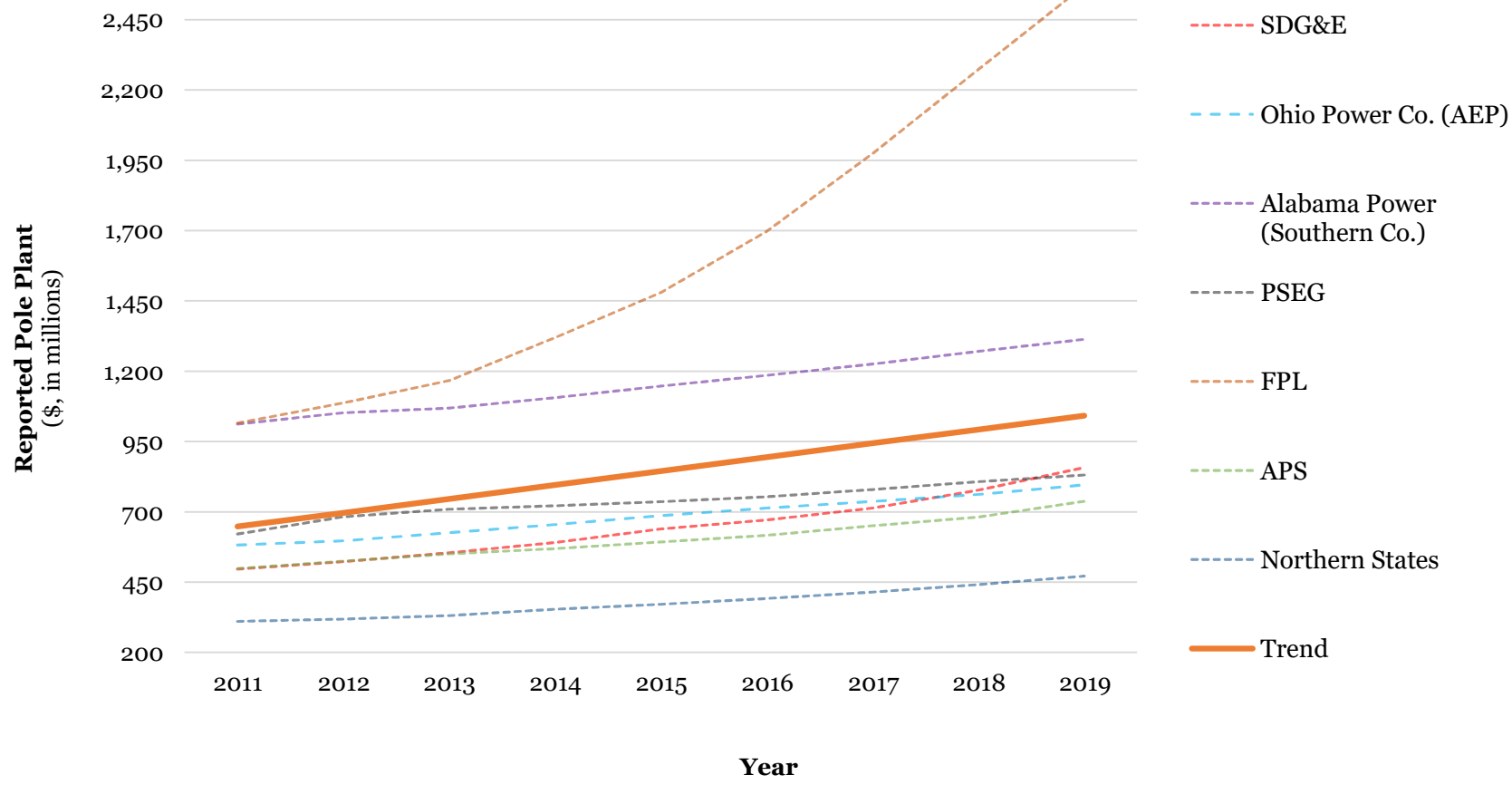
<sup>56</sup> As reported by the widely used region-specific Handy-Whitman Index ("HWI") of Public Utility Construction, cost trends pertaining to new pole construction costs recorded in FERC Account 364 for the period covered in Figure 2 are in the range of only 18% to 23%. All else being equal, one would expect period increases shown in Account 364 for poles to trail the HWI since the HWI relates to new construction only, whereas Account 364 reflects historic, embedded investment costs. See Handy-Whitman Index of Public Utility Construction Costs, "Cost Trends of Electric Utility Construction," Bulletin No. 177, as published by Whitman, Requardt, and Associates, LLP, 801 South Caroline Street, Baltimore, Maryland 21231; all rights reserved.

service, rather than the incidental requests for attachments by third-party communications attachers. See **Figure 2** below.

From an economic efficiency perspective, it is inefficient to allocate to the attacher a proportionate share of costs greater than those causally linked to the timing of the plant replacement due to the attacher's action, *i.e.*, the deviation from the otherwise planned or naturally-occurring retirement or replacement of the utility pole in the normal course of its operations. By charging third-party attachers make-ready amounts reflecting the full new, undepreciated cost of a replacement pole to which they seek to attach to provide service, rather than only the unrecovered portion of the utility's original booked investment remaining on its books at the time of the replacement, the utility stands to reap an economic windfall to the detriment of the attacher and the broadband market generally.

Moreover, the utility's ability to extract these windfall amounts from third-party attachers provides an additional incentive to the utility, as owner of the essential pole facility, to overstate the necessity to replace poles to accommodate third-party attachments, further exacerbating the detrimental impacts of its inefficient cost allocation and pricing practices. This incentive to do so is increasing over time due to the increased demands on utilities to upgrade and replace their aging pole infrastructure.

Figure 2  
 Examples of Recent Aggressive Growth in  
 FERC Account 364 Pole Investments



**B. Current Cost Allocations for Make-Ready Fail to Account for the Substantial Offsetting Economic Gains to the Utility in the Form of Betterment and Cost Savings Properly Attributable to the Attacher in Determining Just and Reasonable Charges**

A more complete and realistic look at the economics of pole replacements under established cost causation principles, as explained above, reveals that attachers merely precipitate costs that would otherwise occur at a future date even in the absence of the attachment request, and that there is economic value provided to the utility (which can be described either as benefits or cost savings) as a result of the replacement. An economic efficient method of assigning cost responsibility to attachers (*i.e.*, one focused on sending accurate price signals to economic actors) recognizes these dynamic conditions.

Although Congress, and this Commission in its 1987 Order,<sup>57</sup> recognized the concept of betterment/nonbetterment as it applied to make-ready cost allocations years ago, betterment concepts are often ignored in practice, despite the fact that the betterment gains to the utility from pole replacements are multifold. They include:

- Operational benefits of the replacement pole (*e.g.*, additional height, strength and resiliency) that can enhance the productive capacity of the plant to meet service quality and other regulatory mandates;
- Strategic benefits, including the ability to offer additional service offerings and enhancements of its own (*e.g.*, smart grid applications<sup>58</sup>) as well as broadband in competition with the attacher;
- Revenue-enhancing benefits, including enhanced rental opportunities from the increased capacity on the new replacement pole;
- Capital cost savings associated with future planned plant upgrades and cyclical replacement programs;
- Operational cost savings in the form of lower maintenance and operating expenses inherent to features of the new, upgraded/higher-class replacement pole,<sup>59</sup> or as a result of the earlier

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<sup>57</sup> See S. Rep. No. 95-580 at 19; also *1987 Report and Order*, 2 FCC Rcd. at 4397 ¶ 74 (“if a utility is purportedly charging a rate based on fully allocated costs, then it should not also be charging additional fees because, by definition, fully allocated costs encompass all pole-related costs”).

<sup>58</sup> See, *e.g.*, *supra* note 51.

<sup>59</sup> See American Iron and Steel Institute, *Advantages of Steel for Utility Poles* (accessed Aug. 26, 2020) (“Maintenance: After installing steel poles, you do not have to re-tighten hardware later due to pole shrinkage. Steel retains its shape and strength and isn’t susceptible to damage by woodpeckers, insects, rot, or fires. There is no expensive inspection

time shift of the removal and installation of the new pole, given the generally rising costs of labor and material over time as measured by published industry cost indices;<sup>60</sup> and,

- Enjoyment of additional tax savings from the accelerated depreciation of a new capital asset which reverses as the asset ages.

Importantly, the cost allocation inefficiencies identified in the NCTA Petition are somewhat unique to pole replacements and do not affect or require the Commission's consideration of most other types of make-ready projects, such as rearranging wires or installing extension arms or brackets. Pole replacements are the starkest example of utility betterment in make-ready, and also the clearest instance of an otherwise inevitable utility investment—the pole will someday need to be replaced anyway. Thus, while although other forms of make-ready may in some cases be properly classified as 100% avoidable costs from the utility's perspective, pole replacements are distinguishable for the reasons articulated in this paper.

### **C. Current Levels of Make-Ready Charges for Replacement Poles Are Detrimental to Broadband Deployment, Particularly in Unserved Areas, Where They Act as a Compounding Barrier to Entry**

By applying cost causation principles in the myopic fashion described above, the current utility system of cost allocation for make-ready for pole replacement shifts costs onto the attachers in excess of efficient levels resulting in a number of market distorting, detrimental impacts on the final broadband product market. As laid out in the first section of this report, resources that would otherwise be used by those attaching to utility poles toward investment in broadband facilities and the provisioning of service are instead diverted toward higher pole charges paid to the utility and the concomitantly higher monopoly rents to the pole owner. This shift in resources reduces overall societal welfare by producing ultimately higher prices and the provision of less broadband services for consumers, including the utility's own ratepayers, from which they would derive significant economic benefit.

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and toxic treatment programs necessary after the installation of steel poles.”), available at <https://www.steel.org/steel-markets/utility-poles>; see generally SCS Global Services, *Environmental Life Cycle Assessment of Southern Yellow Pine Wood and North American Galvanized Steel Utility Poles* (Apr. 2013), <https://lineman.steel.org/-/media/files/lineman/upoles---report---steel-vs-wood-utility-pole-lca-study-executive-summary-final.ashx?la=en&hash=50B4DD42BDCDD6AE2642D071E354893A4730C116>.

<sup>60</sup> See, e.g., the Handy-Whitman Index of Public Utility Construction Costs, “Cost Trends of Electric Utility Construction,” Bulletin No. 177, as published by Whitman, Requardt, and Associates, LLP, 801 South Caroline Street, Baltimore, Maryland 21231; all rights reserved.

Put simply, there is no efficiency gain in charging make-ready costs that represent the fully loaded replacement cost of a pole to the utility; this practice generates only efficiency *losses* associated with the extraction of monopoly rents and the creation of deadweight loss to society and consumers. It results in fewer broadband infrastructure investments, reduced service availability, and higher broadband prices. Quite simply, the more dollars that attachers must pay over economically fair and efficient levels to a utility for pole replacements raises their cost of entry, puts them at an absolute and/or relative competitive disadvantage, and siphons off dollars that could otherwise be invested in broadband infrastructure.

For the reasons mentioned above, this problem is particularly acute in unserved (often rural) areas due to the generally higher number of poles required per-customer and lower population densities. In these areas, broadband providers face the compounding challenges of higher costs of entry from excess make-ready charges *and* fewer subscribers over which to spread those higher costs, making an already difficult undertaking all the more difficult.<sup>61</sup> Additionally, those areas tend to be pockets of lower income, such that potential subscribers will tend to be even more highly sensitive to the prices for broadband.<sup>62</sup>

Utilities often advance a false narrative that ascribes the prohibitively high costs of broadband entry in rural areas exclusively to the unfavorable per-unit economics associated with serving low density areas, suggesting pole attachment charges are irrelevant as barriers to entry.<sup>63</sup> By embracing this misconception, utilities try to absolve themselves from any responsibility for imposing excessively high pole attachment charges on broadband providers such as high make-ready costs for pole replacements. However, the economic reality is that the two go hand in hand. It is precisely because of the economics of low density, and the relatively larger number of

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<sup>61</sup> High make-ready costs can also serve as entry barriers in unserved urban areas, but those barriers, while still important, are not compounded by low population densities.

<sup>62</sup> See *FCC 2015 Broadband Progress Report and Notice Of Inquiry on Immediate Action to Accelerate Deployment*, GN Docket No. 14-126, FCC 15-10, released February 4, 2015, ¶ 7, citing *infra* ¶ 95, Tbl.14. (“Americans with lower median incomes and where the poverty rate, rural population rate, and unemployment rate is higher tend to have lower broadband adoption rates.”); see also Nicholson and Snyder, *Microeconomic Theory*, *supra* note 6 at 159, 161-162 (discussing income effects and demand elasticity); *id.* at 405 (identifying elasticity of market demand as a function of income); *id.* at 744 (defining income and substitution effects).

<sup>63</sup> See, e.g., NRECA (Brian O’Hara, Regulatory Director), *Rural Electric Cooperatives: Pole Attachments Policies and Issues, Broadband Deployment in Rural America Not Impeded by Pole Attachment Rates*, updated January 2020.

poles/per subscriber that are required in rural areas, that high per pole make-ready charges can be so devastating on the business case for broadband deployment.

Sources of entry barriers need not be exclusive—they can be additive and compound preexisting problems and challenges. The higher the entry barriers facing the broadband provider in any given area, the more formidable the headwinds are against broadband deployment. Moreover, the role of make-ready charges for pole replacements as an entry barrier for broadband investment and availability are of even heightened concerns in recent years given the ever growing importance of deploying affordable broadband in rural areas highlighted in the current COVID environment and the additional incentives for utilities to exploit their monopoly power to favor their own entry into the market.

High make-ready costs well in excess of a competitive market level operate just like an inefficient tax on broadband service, except that the utility and not the government reaps the cash levy, and the large positive externalities of increased broadband adoption (including among the utility's ratepayers) are lost. Even more troubling is the fact that utilities are showing an increasing interest in entering the broadband market themselves,<sup>64</sup> meaning that high make-ready cost 'taxes' on attachers in some cases may be levied by a potential competitor. As is well recognized in the public regulatory and economic literature, inefficient taxes levied on a vital input introduce market distortions into both the supply and demand sides of both the intermediate (pole) input and final downstream (broadband) product market that reduce consumer welfare and create deadweight losses to society.<sup>65</sup> As applied to broadband, the ultimate or inevitable market outcome of the inefficient tax-like effects from excessive make-ready charges levied by utilities on broadband providers is less investment by those broadband providers, and less availability and affordability of the service to consumers—including the utility's own ratepayers.

Some might consider high-make-ready charges a useful method to contribute to or defray the rising costs of delivering electric distribution services, but that argument invites the very cost reallocation problems that lead to economic inefficiency. A monopolist is not entitled to recover "losses" from foregone monopoly rent,<sup>66</sup> and efficient prices promote the highest and best use of

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<sup>64</sup> See note 5 above.

<sup>65</sup> See Nicholson and Snyder, *Microeconomic Theory*, *supra* note 7 at 432, 437-38 (explaining deadweight loss effects of taxes); *id.* at 499 (explaining deadweight loss, and allocational and distributional effects of monopoly).

<sup>66</sup> See *Alabama Power*, 311 F.3d at 1369-70.



resources, whatever they may be in each individual case. Efficient pricing properly balances the goal of promoting investment in broadband infrastructure “with the historical role that pole rental rates have played in supporting ... pole infrastructure,”<sup>67</sup> and allows broadband deployment to occur where it makes economic sense. In those areas, several important multiplier effects of broadband on economic and social wellbeing would likely materialize as suggested by the strong empirical evidence cited above.<sup>68</sup>

Indeed, there are several other factors that suggest, beyond the economic logic detailed above, that siting the bulk of pole replacement cost responsibility with its primary cost driver—electric service—has proper and appropriate secondary effects:

- Pole attachment revenues (of which make-ready charges are just one component) represent, on a per electric subscriber dollar or per kilowatt hour basis, a small portion of electric utility revenues.<sup>69</sup> This means that conforming replacement cost charges to the Commission’s cost-causation framework would have little impact on ratepayers with respect to the availability or affordability for electricity. The opposite is true for broadband, where ensuring economically fair and efficient pole attachment charges could have a significant positive impact on broadband prices.<sup>70</sup>

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<sup>67</sup> See *2015 Order on Reconsideration*, 30 FCC Rcd. 13731 at ¶ 9.

<sup>68</sup> See *supra* notes 39-43.

<sup>69</sup> See, e.g., Southern California Edison, *2021 General Rate Case before the Public Service Commission of the State of California*, SCE-02 Volume 7 at 91 (Aug. 2019) (showing 2018 pole attachment rental revenues of \$6,206,000, as compared to 2018 total electric revenues of \$12,796,966,537 as reported in FERC Form 1, p. 300, line 27, col (b), indicating pole attachment revenues of less than half of one percent [ $\$6,206,000/\$12,796,966,537 = .00485$ ]); see also Public Service Company of New Hampshire, FCC Docket No. DT 12-084, Response to TW-COMCAST-01, dated 09/28/2012, Q-TW-COMCAST 006 (showing 2008 pole attachment revenues of \$1,899,000, as compared to 2008 total electric revenues of \$1,173,647,888 as reported in the FERC Form 1, indicating pole attachment revenues of less than 2/10ths of one percent [ $\$1,899,000/\$1,173,647,888 = .00162$ ]).

<sup>70</sup> See, e.g., *National Broadband Plan*, *supra* note 35 at 110 (“To support the goal of broadband deployment, rates for pole attachments should be as low and as close to uniform as possible. The rate formula for cable providers articulated in Section 224(d) has been in place for 31 years and is ‘just and reasonable’ and fully compensatory for utilities. Through a rulemaking, the FCC should revisit its application of the telecommunications carrier rate formula to yield rates as close as possible to the cable rate.”); *id.* (“The impact of these rates can be particularly acute in rural areas, where there often are more poles per mile than households.... If the lower rates were applied, and if the cost differential in excess of \$8 per month were passed on to consumers, the typical monthly price of broadband for some rural consumers could fall materially. That could have the added effect of generating an increase – possibly a significant increase – in rural broadband adoption.”).

Indeed, the significant negative economic impact of high pole attachment rates such as proposed by many utilities for broadband service subscribers is magnified by the little to any offsetting value of those higher rates for residential electricity subscribers (who are also subscribers of broadband), since the impact of higher pole attachment rates on a per electric subscriber or per kilowatt hour basis is very small in contrast to the relatively large impact per broadband subscriber. Applying the analytic framework for evaluating the impact on broadband subscribers of high pole

- The demand for electric distribution service is not price sensitive—it is what economists refer to as ‘inelastic’ demand, meaning that even *if* the impact of pole attachment revenues per electric subscriber was significant (which it is not given the miniscule portion of total electric revenues that make-ready charges represent<sup>71</sup>) and even *if* it could be shown that electric rates charged by the utilities would actually go up in response to changes in pole attachment charges (which is not readily demonstrated or likely due to a host of considerations impacting the determination of a utility’s cost of service and revenue requirement), subscriber demand for electricity would not be negatively impacted. If anything, subscriber demand for electricity would likely increase in connection with greater access to high quality broadband, as would their overall economic welfare.
- There is no evidence to suggest any dampening of investment in distribution plant by electric utilities has occurred in the more than four decades in which the cable rate has been the prevailing rate for third-party pole attachment rates, or in the near decade in which the Telecom formula was reformed to align with the cable rate. To the contrary, increases in Account 364 gross investment in pole plant has been steadily increased over time, if not dramatically so for some utilities. (See **Figure 2** above.) Given the relatively tiny proportion of make-ready charges to total electricity revenues, there is no reason to believe a reduction in make-ready charges would have a significant if even noticeable impact on the utility’s cost of service.
- Since its inception, the utility’s core electric service has been, and necessarily remains, the principal driver of its capital budgeting decisions and investment in its pole network infrastructure. Utilities’ planning for the appropriate amount of pole plant of the height, type and class they deem appropriate is ultimately based on their own operational needs and in response to regulatory mandates for service quality and network resiliency.

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attachments rates to data for the Public Service Company of New Hampshire showed estimated average annual impacts on broadband customers of over ten times the average annual impact on electric customers across various utility pole attachment pricing proposals. Before the Public Utilities Commission of the State of New Hampshire, *Time Warner Entertainment Company L.P. d/b/a Time Warner Cable Petition for Resolution of Dispute with Public Service Company of New Hampshire*, DT-12-084, Pre-filed Reply Testimony of Patricia D. Kravtin, dated October 31, 2012 at 14. Moreover, due to price elasticity of demand effects, as described below, even these shown impacts understate the true relative impact on broadband service subscribers versus electric distribution subscribers of higher pole attachment rates.

In sum and as a general economic proposition, there is no good purpose to be served by the current practice of make-ready charges for replacement poles well in excess of efficient levels. There are however concrete social economic welfare gains to be realized by the consuming public and overall societal welfare from the realignment of make-ready charges pertaining to replacement poles. In the economic social welfare framework, this is all the more compelling in unserved areas of the country, where broadband deployment has been recognized as an overarching goal of this Commission.

### **Part III: The NCTA Petition: A Fair, Efficient, Economically Principled, and Readily Administrable Solution to Existing Utility Make-Ready Cost Allocation Practices**

#### **A. The Rationale Underlying the NCTA Petition**

The NCTA petition presents a thoughtful approach to pricing make-ready charges for pole replacements that is well-grounded in economics principles and readily-available data. In a nutshell, the rationale underlying the NCTA petition is to align utility cost allocation practices with underlying cost causation principles.<sup>72</sup> As explained earlier, the cost responsibility for a pole replaced after the receipt of a new attachment request can be shared in an economically fair and efficient manner such that the utility’s economic gains (or “betterment” as it is referred to in the legislative history of Section 224) is recognized and the attacher bears the true additional cost burden imposed on the utility, *i.e.*, the incremental costs caused by the advancing of the pole replacement to an earlier date, and other proven additional “nonbetterment” portions of the replacement cost.<sup>73</sup> The NCTA approach recognizes that the replacement of poles is an inevitable or unavoidable cost to the utility that would occur in the normal course of utility operations in connection with the utility’s own capital programs and independent of the existence of the third-party attacher, albeit at a later date.

Consistent with the underlying theory, the appropriate economic assessment under the NCTA petition for determining whether the costs associated with pole replacement are properly considered avoidable by the utility—and hence an incremental or “but for” cost to the utility attributable to the attacher—is based on a dynamic time frame sufficiently long so as to take into consideration both (1) the utility’s inevitable replacement of the poles in question; and (2) the explicit recognition of the economic gains or “betterment” enjoyed by the utility in regard to the replacement pole.

In this manner, the NCTA petition ties the definition of just and reasonable make-ready charges for pole replacement to a more economically appropriate, dynamic timeframe (versus the instant, static time frame applied by the utility) that causally attributes to the attacher a more limiting set of “nonbetterment” costs reflecting the true unavoidable or incremental costs incurred

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<sup>72</sup> See NCTA Petition at 22-27.

<sup>73</sup> See S. Rep. No. 95-580 at 20.

by the utility in connection with the new attachment request. As described earlier, the NCTA approach articulates a properly balanced, efficient allocation of costs in proportion to or commensurate with the benefits in that context by recognizing that in the majority of cases the new attacher merely advances the timing of a future pole replacement and should compensate the pole owner accordingly based on the more limiting economically principled set of additional temporal-related costs associated with that advancement—rather than the total replacement costs of the new pole for which the utility is the primary beneficiary of the betterment or enhanced productive capabilities of the upgraded plant (inclusive of associated cost savings). Any movement away from that properly balanced equilibrium as recommended by the NCTA petition would increase the proportion of costs allocated to either the attacher or the pole owner that does not well align in a cost-causative sense with the corresponding, proportional benefits of the respective parties, introducing inefficiencies and investment-inhibiting distortions into the marketplace.

In addition to applying the Commission’s long-standing cost causation principles to pole replacements, the NCTA petition also helpfully builds on the language in a Maine rule that bases make-ready costs associated with pole replacement on a “reasonable estimate of the net book value of the joint use utility pole and supporting equipment.”<sup>74</sup> The Maine rule provides a sharp contrast to the current, widespread, and inefficient cost allocation practices of utilities that shift the entire fully loaded cost responsibility of the new pole onto attachers. This paper explains how that rule has a robust economic foundation, and also shows why the NCTA approach is a workable paradigm that can be applied by this Commission nationwide.

#### **B. Cost Categories Proposed in the NCTA Petition that Meet Definition of Costs Properly Attributable to Attachers**

As described in the NCTA petition, there are two major categories of costs that meet the criteria for true “but for” costs attributable to attachment requests in an economically dynamic efficiency framework. These are: (1) the net book value (*i.e.*, original net pole cost not yet depreciated or recovered by the utility) of the existing utility pole plant that “but for” the new attachment could have remained in service until such time it was fully depreciated and/or reached the end of its service life or used and useful life to the utility (whichever came first); and (2) an additional category of incremental costs, to apply where the existing pole is not near the end of its

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<sup>74</sup> See Maine Regulations 65-407, Part 8 Chapter 880 at 5.C, available at <https://www.maine.gov/mpuc/legislative/rules/part8-multi.shtml>.

useful life as measured by the utility’s current depreciation rate, to account for the cost differential, to the extent any could be demonstrated with verifiable data, between the replacement pole and the pole the utility would otherwise have installed upon retirement of the existing pole “but for” the new attacher.<sup>75</sup> This would include, for example, the additional unique costs owing to extra height, class or strength of pole that “but for” the new attachment the utility would have deployed to serve its own core electric service) with the pole required to accommodate the new attachment.

Except in these limited cases discussed below where the additional cost component can be fully supported and well documented, the utility will be made whole under the NCTA approach by make-ready charges that simply recover the net book value of the earlier retired replaced pole remaining on its books. In many respects, this charge is analogous to a stranded investment recovery charge, a widely accepted practice for making utilities whole in light of events or decisions to replace plant earlier than planned or anticipated or before the end of the plant’s historical useful life.<sup>76</sup> Each aspect of the NCTA approach is discussed in turn.

***Net book Value of the Replaced/Retired Pole.*** Specifically, and with respect to the net book value of the removed pole, the NCTA approach establishes a presumptive value based on the average booked net bare pole cost under the Commission’s recurring rate formula methodology. **Table 1** below provides an illustrative example of that sort of calculation for an illustrative electric

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<sup>75</sup> See NCTA Petition at 9-12, 23-26.

<sup>76</sup> Stranded costs—*i.e.*, situations where “utilities may not be able to recover all of their prudently incurred costs” from ratepayers because of an exogenous change to the policy landscape not within the control of the utility—are a very well-known and well-understood concept in electric utility regulation, and many states have enacted some form of stranded cost recovery out of fairness to utilities. See Gregory Basheda et al., *The FERC, Stranded Cost Recovery, and Municipalization*, 19 Energy L. J. 351, 352 & n.8, 355 & nn.22-26 (1998), available at [https://www.ebanet.org/assets/1/6/6-Vol19\\_No2\\_1998\\_Art\\_FERC,\\_Stranded\\_Cost.pdf](https://www.ebanet.org/assets/1/6/6-Vol19_No2_1998_Art_FERC,_Stranded_Cost.pdf). In other words, when utilities’ long-term capital planning processes and best laid plans are interrupted, as occurred in many states upon the adoption of electric restructuring and retail choice, the overnight losses in value of utility plant (or premature retirements of resources) can be compensated through non-bypassable charges levied upon electric customers. See Congressional Budget Office, *Electric Utilities: Deregulation and Stranded Costs* at 3, 5, 7-8, 12 (Oct. 1998), available at <https://www.cbo.gov/sites/default/files/105th-congress-1997-1998/reports/stranded.pdf>; see also, e.g., N.J. Stat. 48:3-51 (defining “market transition charge” and “stranded cost”); N.J. Stat. 48:3-61 (permitting recovery of stranded costs from ratepayers through market transition charges). Here, the same sort of exogenous change occurs, albeit on a much smaller scale: the utility retires pole plant in response to a request from an attacher and the remaining undepreciated value of that plant is no longer recoverable from utility customers. Make-ready charges thus function as an opportunity for the utility to recover what otherwise would be a stranded, unrecoverable cost—the value of the now retired pole. That is the economic opportunity that the utility loses when a pole is replaced, and the approach advanced in the NCTA petition would ensure that the utility is made whole for that exogenous change to its plans and that no economic value is lost.

utility. As shown in **Table 1** below, the per-unit net bare pole cost is calculated in the following four steps:

- **First**, the electric utility’s gross investment in pole cost is determined based on amounts reported in the utility’s books of account in Account 364 (“Poles, Towers and Fixtures”).
- **Second**, this gross investment amount is converted to a net investment figure by subtracting accumulated depreciation for pole plant and accumulated deferred taxes applicable to poles.<sup>77</sup>
- **Third**, the net investment in bare pole plant is determined by making a further reduction to remove amounts booked to Account 364 for “appurtenances,” such as cross-arms, used in the provision of the core electric service only and from which communications attachers do not derive benefit.
- The **fourth** and final step is to divide the net investment in bare pole plant figure by the total number of poles the utility has in service to derive a per-unit pole cost figure, which can then be scaled to the number of poles to be replaced in the course of a particular attachment project.

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<sup>77</sup> To appropriately reflect the cost changes associated with the 2017 Tax Cuts and Job Act (TCJA), the amount of ADIT which became “excess” as a result of the lower corporate income tax rate adopted by the TCJA, but that pursuant to GAAP accounting principles as of December 31, 2017, are publicly reported in the utility’s FERC Form 1 Report in Account 254 (at page 278) must also be included to those amounts booked to the standard recurring formula ADIT accounts (i.e., Account 190, 282-283). These unamortized amounts remain on the utility’s books and continue to provide a source of zero-cost capital to the utility and accordingly must be included in the pole formula proration as a deduction to gross pole investment in order to properly reflect the underlying investment with related tax expense and tax liability accounts. *See, e.g., Investigation of the Financial Impact of the Tax Cuts and Jobs Act of 2017 on Regulated Ohio Utility Companies*, Finding and Order, No. 18-47-AU-COI, at 19, ¶ 30 (Pub. Util. Comm’n of Ohio Oct. 24, 2018) (directing “pole owners filing future pole attachment rate adjustment applications to deduct, in addition to ADIT and depreciation reserves, any unamortized excess ADIT resulting from the TCJA from total gross plant and gross pole investment in their pole attachment rate calculations”), available at <https://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=a6f02a5a-72c2-4f45-9acb-62f0814f9dcd>; *Ohio Power Company’s Implementation of the Tax Cuts and Jobs Act of 2017; Application of Ohio Power Company to Amend Its Tariffs*, Nos. 18-1007-EL-UNC; 18-1451-EL-ATA (Pub. Util. Comm’n of Ohio Oct. 3, 2018) (joint stipulation showing specific required accounting adjustments), available at <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=f05153fa-f5df-41ce-8f4e-59104005441b>; see also *Application of The Connecticut Light and Power Company d/b/a Eversource to Amend its Rate Schedules*, Approval of Amended Compliance Filing, No. 17-10-46 (Conn. Pub. Util. Reg. Auth. Feb. 14, 2019), available at <https://bit.ly/2EDsFTI>; *Application of The Connecticut Light and Power Company d/b/a Eversource to Amend its Rate Schedules*, Amended Compliance Filing & Resolution of NECTA’s Objections Raised in Motion Nos. 46 & 47, No. 17-10-46 (Conn. Pub. Util. Reg. Auth. Feb. 5, 2019) (detailing settlement between Eversource and the New England Cable Television Association that revised pole attachment rates to “reduce Eversource’s total gross plant and gross pole investment by the amount of any unamortized Accumulated Deferred Income Tax ... expense resulting from the Federal Tax and Job Cuts Act of 2017, in addition to ADIT and depreciation reserves”), approved Feb. 14, 2019, available at <https://bit.ly/3gD0tDD>.

<b>Table 1</b>		
<b>Illustrative Example of Per-Pole Average Remaining Net Book Value Based on FCC Recurring Rate Formula Methodology</b>		
<b>Formula Calculation: Net Bare Pole Cost Component</b>	<b>Data as of 12/31/xx Current Cost Year</b>	<i>Sources/ Notes</i>
Investment in Pole Plant Acct 364	\$675,000,000	FERC Form 1 Report Acct 364
- Accumulated depreciation for poles	\$300,000,000	Prorated from Electric/ Distribution Plant or Internal Utility Records
- Accumulated deferred income taxes for poles	\$120,000,000	Prorated from Total/Electric Plant including Excess ADIT Amounts
= Net Pole Investment	\$255,000,000	
x (1- Appurtenances Factor)	.85	FCC 15% Rebuttable Presumption or Actual
= Net Pole Investment allocable to Attachments	\$216,750,000	
/ Total Number of Poles	400,000	Utility Records
<b>= Estimated Average Remaining Net Book Value/Pole</b>	<b>\$541.88</b>	

In summary and as enumerated in the NCTA petition, employing the recurring rate formula methodology as a basis for calculating the net book value offers many advantages, including:

- The methodology is widely accepted and used throughout the country;
- The methodology relies primarily on publicly available utility cost information (the one exception being aggregate utility pole count, but that is generally available data and provided in recurring rate calculations);
- The methodology has been upheld by the Supreme Court;
- The methodology is straightforward to implement and easily administered, and
- Parties could rely on existing agency and judicial precedent accumulated over the past four decades in providing substantial guidance, reducing the likelihood of costly and time-consuming challenges and litigation.<sup>78</sup>

In addition, the use of the recurring rate methodology in the computation of make-ready charges would allow for a uniform approach across the states under FCC jurisdiction, as well as some uniformity between the two types of pole attachment charges permitted under the FCC's

<sup>78</sup> See NCTA Petition at 23-27.



regulatory regime in regard to measuring capital costs of a pole attributable to attachers. That said, as with any rebuttable presumption as applied in the recurring rate formula, parties would have the opportunity to challenge the presumptive net bare pole cost value as measured by the recurring rate formula where actual, well-supported and documented data on the removed pole was available and could be substantiated and verified.

***Additional Unique, Data-Verified Incremental Costs.*** As a practical matter and an economic reality, the second category of costs identified in the NCTA petition—additional/incremental pole costs beyond what a utility would have installed in its normal course of pole replacements—should be a very limited occurrence. As described earlier in this report, utilities are increasingly deploying taller, stronger poles to meet their own expanding operational needs such as to meet growth and satisfy regulatory mandates for quality of service, safety, and resiliency. There are an increasing number of pole resiliency/hardening and upgrade modernization programs underway nationwide in response to a generally aging pole infrastructure or to meet the growing demands of the utility’s primary service. The NCTA petition, while fair to the utility in allowing for the possibility of this second area of cost recovery by the utility in make-ready charges for pole replacement, appropriately establishes the (rebuttable) presumption that such costs do not exist.

***Data-Verified Adjustments to Rebuttable Presumptions.*** As with the rebuttable presumptions in the recurring rate formula, the parties would have the opportunity to challenge the presumption based on actual, well supported and documented data that could be substantiated and verified. In light of the utility’s opportunity and incentive to seek additional cost recovery in excess of true “but for” costs as defined in an economically dynamic efficiency framework, such additional cost recovery to the utility would be allowed under the NCTA approach only in those instances where the utility can provide actual, detailed factual documentation in support of such a claim.

The NCTA petition specifically provides either party the opportunity to challenge the use of the average net book cost based on the average age of the utility’s pole plant and support instead the use of a net book value amount associated with the actual vintage of the removed pole. In particular, the pole owner could seek to use a higher net book value to calculate make-ready charges where it could be demonstrated with verifiable data the age of the removed pole was younger than average vintage pole and hence subject to fewer than average years of depreciation-

related capital recovery. Similarly, attachers could seek to use a lower net book value where it could be demonstrated the age of the removed pole was older than the average vintage pole and hence subject to more years of depreciation-related capital recovery (*i.e.*, write-down) by the utility.

Given both the incentive for the utility to overcharge, its control over the data used in the calculations, and the desirability of setting make-ready charges at efficient, just and reasonable broadband promoting levels as contemplated in the NCTA petition for the reasons further explained in this report, it is important the utility be required to provide well documented reliable and verifiable forms of support for any challenge to a rebuttable presumption that raises make-ready charges. Generally reliable sources of data would include: published construction guidelines or specific pole replacement plans including current or future pole resiliency and hardening programs, detailed pole construction planning and budgeting schedules provided in connection with rate case filings, fixed asset accounting records pertaining to Account 364 with detailed depreciation entries for tax and ratemaking purposes, and detailed work orders pertaining to the specific removed poles.<sup>79</sup> Holding utilities responsible for documenting and proving any challenge to these rebuttable presumptions will help ensure that the Commission's time in sorting through those challenges is well spent. In addition, to be balanced, attachers should also have a reasonable opportunity to make presumptive challenges, including a process by which they could obtain reasonable, timely access to sources of utility data not publicly reported but internally tracked and available to the utility as potential support for its data claims.

### **C. The Relatively Easy, Practical Application of the NCTA Petition**

**Table 2** below provides an illustrative example of how the NCTA petition would work in practice. As demonstrated in **Table 2**, even in cases where there were presumptive challenges, the NCTA approach offers a relatively straightforward, uniform, easily administered approach to determining just and reasonable make-ready charges as compared to the status quo.

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<sup>79</sup> See NCTA Petition at 25-26.

<b>Table 2</b>			
<b>Illustration of NCTA Approach for Make-Ready for Replacement Poles</b>			
<b>Calculation Steps</b>	<b>Age of Poles</b>		
	<b>Newer than Average Vintage Poles</b>	<b>Average-aged Poles, or No Verifiable Pole-Specific Data Available</b>	<b>Older than Average Vintage Poles/Poles Scheduled for Near-Term Replacement</b>
Estimated Average Remaining Net Book Value (NBV)/Pole	\$541.88	\$541.88	\$541.88
+/- Reasonable Adjustment to Accumulated Depreciation (Add/Subtract Annual Depreciation Accrual x No. Years Younger/Older than Average)	+\$250	n/a	-\$250
+ Additional Unique Cost/Pole (in Limited Cases Where Documented/Demonstrated Costs Caused by Attacher)	\$200	Presumed zero or no sufficient documentation	\$0
- Less Cost Savings from Earlier Replacement and Lower Maintenance Amortized over Life	\$50	Presumed zero or no sufficient documentation	\$0
Adjusted Average NBV/Pole	\$941.88	\$541.88	\$291.88
Number of Poles	1,000	1,000	1,000
New Attacher Cost Responsibility [Product of NBV/Pole * # of Poles]	\$941,880	\$541,880	\$291,880

The NCTA petition also offers an alternative method to the recurring rate formula to estimate the net book value of the removed pole from the bottom-up based on the current installed per unit cost of a newly installed pole.<sup>80</sup> This method could be applied in the limited instances where historic records cannot be relied upon, *e.g.*, where data on pole counts (the one input used in the calculation of the net bare pole cost in the recurring formula that is not based on data reported in the FERC Form 1) is not readily available or deemed reliable. This alternative method starts with the average cost of a standard joint use pole being installed by the utility in the relevant geographic area, and adjusts that cost by the average age of the utility's embedded base of poles to account for (1) cost changes from the installed date of the new pole using a published cost index

<sup>80</sup> See NCTA Petition at 25, n.56.

such as the Handy Whitman Index for Utility Construction for that geographic region; and (2) to develop an age-appropriate amount of accumulated depreciation to net against the age-adjusted gross investment cost. This alternative method is illustrated in **Table 3** below. Given the reporting requirements applicable to Investor Owned Utilities (“IOUs”) (and followed by most coops as well), however, it would be expected that parties could almost always rely on the recommended method of the recurring rate formula.

<b>Table 3</b>		
<b>Alternative Method to Estimate Remaining Net Book Value of an Installed Pole – Illustrative Example</b>		
<b>Step</b>	<b>Description</b>	
1	Utility Current Installed Per-Pole Cost (2019)	\$2,500.00
2	Cost Deflator from 2019 to 1999 <sup>(1)</sup>	0.5671
3	Estimated Installed Per-Pole Cost (1999)	\$1,417.75
4	Depreciation Rate (default 40-year life)	2.50%
5	Annual Depreciation <sup>(2)</sup>	\$35.44
6	Accumulated Depreciation (default 20 Years) <sup>(3)</sup>	\$708.80
<b>7</b>	<b>Net Installed Per-Pole Cost (2019) <sup>(4)</sup></b>	<b>\$708.95</b>
<p>(1) The Handy Whitman Index, Bulletin No. 175, North Central Region, was used to deflate pole cost from 2019 to 1999 (50% service life).</p> <p>(2) Annual depreciation (straight-line) using depreciation rate of 2.50% based on a pole life of 40 years. (If available, use actual reported utility Account 364 service life, average age/remaining life, and accrual rate inputs).</p> <p>(3) Line 5 times 20 years (50% service life).</p> <p>(4) Line 3 minus Line 6.</p>		

#### **Part IV: The NCTA Petition Produces Make-Ready Charges that Are Reasonable and Compensatory to the Pole Owner, Especially in Combination with Fully Allocated Recurring Rates**

As explained earlier in this report, the economic standard for achieving an optimal, economically efficient market outcome—one governed by cost causation principles and the absence of cross-subsidy—is that the utility is no worse off in real terms after hosting a pole attachment than it was prior to the attachment request. Consistent with both the economics and the associated legal principle of just compensation, all that is required to make such a showing is that the utility is made whole for the marginal costs it incurs in connection with the attachment, inclusive of betterment value, in which case there will be no cross-subsidy of the attacher’s service by the utility.

For the reasons described in this report, the charges resulting from the cost allocation practices proposed by NCTA for make-ready associated with pole replacement are fully consistent with the economic efficiency principles underlying the Commission’s cost causative approach to implementing the Section 224 regulatory framework. The resulting charges under the NCTA paradigm are therefore economically fair to utilities by covering the true “but for” or avoidable costs incurred by the utility in connection with a new attachment request. The NCTA paradigm properly calculates the totality of costs and benefits (including cost savings) attributable to the respective parties and uses an economically appropriate dynamic time frame. That said, ensuring that the utility is made whole for the attachment (and therefore that there is no cross-subsidy by or of the attacher’s service) is not a determination that can be made independent of relevant cost recovery context. The ultimate economic picture is necessarily and properly informed by the amount of total cost recovery the utility receives in connection with the third-party attachment. This is especially true in light of the fact that the recurring rental rate is intended to provide fully allocated cost recovery and that the utility charges all attachers on a per-pole per-foot of attachment basis. These rental rates provide substantial opportunity for recovery of utility overhead well in excess of marginal cost.

The economic synergy between the two forms of pole attachment charges (recurring and nonrecurring), as well as the need to take possible action to ward against overcompensation of the utility, were well recognized by the Commission in one of its earlier orders:

In theory, if a utility is purportedly charging a rate based on fully allocated costs, then it should not also be charging additional fees because, by definition, fully allocated costs encompass all pole-related costs. In addition, if a particular condition is so onerous as to be unreasonable, we will eliminate the unreasonable condition rather than adjusting the rate....<sup>81</sup>

While we reject the arguments advanced by the cable commenters that we should adopt an overall deduction from the fully-allocated-cost-based rates because of a cable operator's subordinate status on the poles, we will address allegations that unreasonable make-ready, or inspection, change-out requirements or other abuses are in violation of the Act in individual complaint proceedings...<sup>82</sup>

We will not adopt any substantive guidelines as to which terms or conditions may warrant a deduction or the quantification of any such deduction. However, we note that a number of terms and conditions have been brought to our attention which should be given close scrutiny in individual complaint cases.<sup>83</sup>

For example, several commenting cable operators have stated that a standard provision in pole attachment contracts requires cable systems to pay all costs arising from pole change-outs even when the need for such a change-out is not caused by the attachment of cable facilities but by some other user. They point out that the Senate Report anticipated that “where a change-out was necessary *in order to accommodate* CATV users, it would be appropriate to charge the cable operator a certain percentage of these pole change-out replacement costs.” (Emphasis added.) It did not contemplate that cable would pay the entire cost of replacing the pole even when the change was necessitated in order to accommodate cable facilities. *Id.* Other areas of possible abuse include unreasonable make-ready costs, unreasonable delay in performing make-ready work, and unreasonable inspection and application fees.<sup>84</sup>

As recognized by the Commission in the passages cited above from its 1987 Order, the annual recurring rate is based on a fully allocated cost methodology, that by design, is set to recover much more than incremental costs—including a full range of costs that would exist for the utility independent of the attacher, such that the utility should not have any need to “also be charging additional fees.” Fast forward to over three decades later, there is even *more* reason to believe the fully allocated rental rate is more than sufficient alone to provide the utility with just and reasonable, fully compensatory cost recovery for pole attachments.

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<sup>81</sup> See *1987 Report and Order*, 2 FCC Rcd. at 4397, ¶ 74.

<sup>82</sup> See *id.* at ¶ 76.

<sup>83</sup> See *id.*

<sup>84</sup> See *id.* at ¶ 76 n.44.

A number of changing trends in pole plant, utility record keeping, and other factors affecting the capital investment and expense recovery built into the three components of the recurring formula—net bare pole costs, the carrying charge factor, and the usable space factor<sup>85</sup>—have been accelerating in recent years such that dramatic increases in the recurring rate have been observed. In its 2011 National Broadband Report, the Commission identified average recurring rates for cable operators subject to its cable rate formula methodology of approximately \$7 per foot per year, as compared to \$10 per foot per year for telecom providers subject to its then existing telecom formula methodology, and \$20 or more applied to some incumbent LECs subject to joint ownership agreements.<sup>86</sup> As of 2017, an NCTA study found average pole attachment rates for IOUs generally remained in the \$7 to \$10 range, in contrast to rates for Coops and Munis not subject to the Commission’s jurisdiction or similar state rate regulation at levels roughly 2 times the average IOU rate, *i.e.*, in the range of \$15 to \$20.<sup>87</sup> Since that time, and notwithstanding the Commission’s 2011 and 2015 rulings designed to promote broadband deployment and competition especially in rural areas by aligning rates derived using the telecom formula to the expected *lower* levels derived under the cable formula,<sup>88</sup> a disturbing trend is emerging of recurring rental rates calculated using the cable rate methodology well in excess of previously observed levels.<sup>89</sup> These

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<sup>85</sup> In my recent experience, I have observed several factors in the recurring rate formula that can and have been used to increase utility capital recovery: Use of depreciation rates that are well in excess of straight-line depreciation rates; tax-related opportunities for excess capital recovery, e.g., changes in ADIT relating to Tax Cut and Jobs Act that the Commission has not yet addressed and many utilities have declined to recognize; accumulated depreciation reserves that reflect substantial write-downs for undocumented or statistically simulated values of future negative net salvage; pole counts that are increasing at a much lower rate (even decreasing) vis-à-vis additions to gross pole investment; the use of default values (a usable space factor of 7.41, and 15% appurtenances) that no longer reflect the existing population of joint use poles.

<sup>86</sup> See Federal Communications Commission, *Connecting America: The National Broadband Plan* at 110-111 (Mar. 17, 2010) (Recommendation 6.1 & Exhibit 6-A), available at <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf>.

<sup>87</sup> See Michelle Connolly, *The Economic Impact of Section 224 Exemption of Municipal and Cooperative Poles* at 13-17 & Tables 1-3 (July 12, 2019), submitted by NCTA – The Internet & Television Association on July 22, 2019, in *Broadband Deployment Advisory Committee*, GN Docket No. 17-83, *Wireline Infrastructure*, WC Docket No. 17-84, *Wireless Infrastructure*, WT Docket No. 17-79, available at <https://www.fcc.gov/ecfs/filing/10722008938472>.

<sup>88</sup> See nn.31-33 & 44 above.

<sup>89</sup> See, e.g., Southern California Edison, *2021 General Rate Case – Workpapers*, Other Costs and OOR, SCE-02, Vol. 07, Witnesses: T. Reeves, at 143-144 (showing an increase in the recurring pole formula rate from \$11.50 as of June 30, 2019 to \$23.40 effective July 1, 2019), [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/B5C19E2B21A42847882584660078A5BE/\\$FILE/WPSCE02V07.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/B5C19E2B21A42847882584660078A5BE/$FILE/WPSCE02V07.pdf); see also Testimony of SDG&E R. Craig Gentes in *California Cable & Telecommunications Association v SDG&E*, Application C.17-11-002, before the California Public Utilities Commission, November 21, 2018 at 5 (presenting a cable rate formula calculation of \$29.40 for billing year 2018); Consolidated Edison Company of New York, Inc, *PSC No: 10 – Electricity*, Rider K – Pole Attachment Rental Rate (eff. date Nov. 29, 2019) (“Rental Rate Per Span Wire Pole Attachment - \$ 32.39”), available at [https://www.coned.com/\\_external/cerates/documents/elecPSC10/electric-tariff.pdf](https://www.coned.com/_external/cerates/documents/elecPSC10/electric-tariff.pdf); Connecticut Light & Power Co. d/b/a Eversource Energy, *Notice of Annual January 1st Adjustment to Formula Pole Attachment Rate* (Nov. 12, 2019) (advising of a

more recently observed high recurring rate levels are well in excess of rates produced by the now abandoned telecom rate that the Commission found to be well in excess of cost causative, efficient levels and detrimental to broadband deployment and competition.<sup>90</sup>

Based on these recent trends in the level of recurring rates, which show no signs of declining absent further Commission action, there is very little risk if any, as a practical matter, that the NCTA method will result in the *under* recovery by utilities of all costs actually attributable to a third-party pole attacher, because recurring pole rents are already so far above incremental cost. Indeed, they are at the very high end of, if not above, the fully allocated costs that based on objective economic criteria would meet the Commission’s established standards for applying cost causation principles to the recurring rate formula.

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\$14.86 solely owned pole rate for CATV attachments, a \$16.48 solely owned pole rate for urban telecom attachments, and a \$16.57 solely owned pole rate for non-urban telecom attachments). While these utilities are subject to the jurisdiction of their state commissions, the majority of certified states rely on the Commission’s cable rate formula or a close variation of it. Some other utilities that follow the Commission’s cable rate formula also have similarly high rates. See, e.g., Southwestern Electric Power Co., *Letter re: Pole Attachment Agreement Between AEP Southwestern Electric Power Co. and Cox Communications* (May 2, 2019) (advising of Section 224 CATV rate of \$22.30 per wireline attachment). Other utilities also report high rates as well. See, e.g., Oklahoma Gas & Electric Co., *Notice of Change in Pole Attachment Rates* (Nov. 1, 2019) (advising of a \$19.81 per foot applicable rate).

<sup>90</sup> See *National Broadband Plan*, *supra* note 86; see also *2011 Pole Attachment Order*, 26 FCC Rcd. at 5298-5303 at ¶¶ 134-137, 147 (“We agree with commenters who explain that today, the telecom rate is sufficiently high that it hinders important statutory objectives.”).



## Conclusion

Pole attachments are a necessary and largely unavoidable input to the production of broadband internet services in the United States. Although pole-owning utilities have pre-existing plans to replace poles at the end of their useful life (if not before), and despite the fact that most of the value of a new pole comes in its contribution to core utility service operations, pole owners across the country often insist that communications attachers pay up front and in full for the entire fully loaded cost of replacing poles where deemed necessary to provide pole access. As explained in this paper, these common utility practices and demands are inconsistent with sound economic and cost causation principles.

When properly considered from the utility's own long-term capital investment perspective, attachment requests merely change the *timing* of a pole's eventual replacement, not its occurrence. In limited cases, a new pole is different from the replacement pole that the utility would have otherwise installed in its normal course of operations, and thus the attachment request causes some additional deviation from the utility's otherwise-applicable replacement plans. These are the primary ways in which a new attacher's requests cause costs for the utility that would not otherwise exist 'but for' the request. Any additional exactions in exchange for pole access that require the attacher to pay for betterment of the utility (*i.e.*, provide value in the form of economic benefits including cost savings) causes unfair and significant economic inefficiencies, especially for broadband deployment in unserved areas.

The NCTA petition in this docket asks the Commission to conform utility practices regarding pole replacement costs with the sound principles of economic efficiency and cost causation that the Commission applies in the make-ready context. It advocates a sensible, administrable approach to pole replacement cost responsibility that makes pole owners whole for the actual costs caused by a new attacher's request. Granting the petition would not just correct widely-recognized problems with utility make-ready charges, it would also help further the ongoing efforts to close the digital divide in the United States.