

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

In the Matter of	)	
	)	
	)	
Modernizing Unbundling and Resale	)	WC Docket No. 19-308
Requirements in an Era of Next-Generation	)	
Networks and Services	)	
	)	

**REPLY COMMENTS OF INCOMPAS AND THE NORTHWEST  
TELECOMMUNICATIONS ASSOCIATION**

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**I. INTRODUCTION AND SUMMARY**

INCOMPAS<sup>1</sup> and the Northwest Telecommunications Association,<sup>2</sup> on behalf of themselves and their respective members, submit these reply comments in the above-captioned proceeding.<sup>3</sup> The record is clear that unbundled network elements (“UNEs”) promote investment and broadband deployment, not only in communities that have not received investment from the incumbent local exchange carriers (“ILECs”) and cable providers, but even

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<sup>1</sup> INCOMPAS is the preeminent national industry association for providers of internet and competitive communications networks and services, including both wireline and wireless providers in the broadband marketplace.

<sup>2</sup> The Northwest Telecommunications Association (“NwTA”) is an association of Service Providers and small Competitive Carriers that offers broadband and voice service in all of Oregon, Washington, and Idaho. All providers serve some rural markets, and many provide only to rural markets.

<sup>3</sup> *Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services*, Notice of Proposed Rulemaking, 34 FCC Rcd. 11290 (2019) (“NPRM”). Due to the need for member companies to assist their communities, including supporting telehealth and remote education, and their employees in responding to the COVID-19 virus, the member companies were not all able to focus attention on comments prior to the reply deadline. INCOMPAS and its members will thus continue to supplement the record.

those that have received some attention.<sup>4</sup> Conversely, none of the comments from the ILECs or USTelecom provide any actual evidence or even a coherent theory for how UNEs have dampened investment.

ILECs invoke, but fail to make any serious efforts to prove, that ending UNEs will speed the deployment of advanced networks, either for loops or transport.<sup>5</sup> And the record does not support their claims. ILECs want to have it both ways: they argue that UNEs are only a small part of the broadband supply, but then argue that eliminating UNEs will help speed the deployment of advanced networks.<sup>6</sup> But their premises are wrong. Competitive providers have

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<sup>4</sup> See, e.g., Comments of INCOMPAS and NWTa at 16-17, 32-33, 39-43 (filed Feb. 5, 2020) (“INCOMPAS Comments”); Comments of Sonic Telecom, LLC at 7 (filed Feb. 5, 2020) (“Sonic Comments”); Declaration of Douglas Denney ¶¶ 8, 13, 28, attached to Letter from Doug Denney, Vice President, Costs & Policy, Allstream Business US, LLC, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“Allstream Decl.”); Declaration of Jeff Buckingham ¶¶ 7, 20, attached to Letter from Jeff Buckingham, President, Digital West, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“Digital West Decl.”); Declaration of Daniel Friesen ¶¶ 3, 5, 8, 11, 13, attached to Letter from Daniel Friesen, Managing Partner and Chief Innovation Officer, IdeaTek Telcom, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (filed Feb. 5, 2020) (“IdeaTek Decl.”); Declaration of Brian Worthen ¶¶ 2, 6, attached to Letter from Brian R. Worthen, CEO, Mammoth Networks, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“Mammoth Decl.”); Declaration of R. Matthew Kohly ¶¶ 15, 79, attached to Letter from R. Matthew Kohly, Director of Government and Carrier Relations, Socket Telecom, LLC, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“Socket Decl.”). Except where otherwise indicated, all filings cited herein were submitted in WC Docket No. 19-308.

<sup>5</sup> See Comments of Verizon at 13 (filed Feb. 5, 2020) (“Verizon Comments”); Comments of USTelecom –The Broadband Association at 42, 56 (filed Feb. 5, 2020) (“USTelecom Comments”); Comments of CenturyLink at 51 (filed Feb. 5, 2020) (“CenturyLink Comments”); Sonic Comments at 21 (“Indeed, while it sought forbearance from all requirements, USTelecom failed to even mention ‘dark fiber’ in its forbearance petition at all. This would suggest the existence of this obligation is not posing any significant hindrance to ILEC transition to next generation networks. The only apparent benefit to the ILEC in letting these facilities remain unused is to thwart competition – an objective the Commission cannot support.”).

<sup>6</sup> See, e.g., Comments of AT&T at 19 (filed Feb. 5, 2020); USTelecom Comments at 48; CenturyLink Comments at 57; Sonic Comments at 21 (citing *NPRM* ¶ 78); Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in

explained on the record, yet again, how they are using UNEs to build a customer base that allows them to build and migrate to fiber networks.<sup>7</sup> This is critical in the communities they serve, even if the households served are a relatively small percentage on a county, state, or national basis. To those households and businesses, having a fiber-based competitive option is bringing benefits. With respect to transport, CLECs have also documented the lack of alternative dark fiber for many key routes, both within and between metro areas.<sup>8</sup>

Moreover, ILECs cannot possibly claim that the remaining UNEs destroy, much less dampen, their incentive to deploy fiber because: (1) copper unbundling requirements do not apply to fiber and end entirely with copper retirement; and (2) competition from UNE-based providers have spurred ILECs to deploy fiber.<sup>9</sup> Additionally, ILECs fail to explain how UNEs disincent those CLECs that can overcome the barriers to fiber network construction from doing so. The ILECs provide rhetoric, but not proof. Nor is there a basis for concluding that avoided-

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Broadband and Next-Generation Networks at 18-19, WC Docket No. 18-141 (filed May 4, 2018) (“USTelecom Forbearance Petition”).

<sup>7</sup> See, e.g., Sonic Comments at 7; Allstream Decl. ¶¶ 13, 28; Digital West Decl. ¶¶ 7, 20; IdeaTek Decl. ¶¶ 5, 8, 11, 13; Mammoth Decl. ¶¶ 2, 6; Socket Decl. ¶¶ 7, 15, 79.

<sup>8</sup> See, e.g., Comments of Uniti Fiber at 7-11 (filed Feb. 5, 2020) (“Uniti Comments”); Comments of Windstream Services, LLC at 18-22 (filed Feb. 5, 2020) (“Windstream Comments”); Windstream Declaration ¶¶ 19, 24-34 (filed Feb. 5, 2020); Digital West Decl. ¶ 14; Socket Decl. ¶¶ 70, 76; Declaration of Mark Iannuzzi ¶ 16, attached to Letter from Mark Iannuzzi, CEO, TelNet Worldwide, Inc., to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“TelNet Decl.”); Comments of SnowCrest at 4 (filed Feb. 5, 2020) (“SnowCrest Comments”); IdeaTek Decl. ¶ 15.

<sup>9</sup> INCOMPAS Comments at 33-34, 44 n.167; Sonic Comments at 27-28; Declaration of Dane Jasper ¶ 4, attached to Reply Comments of Sonic Telecom, LLC (filed Mar. 20, 2020) (“Sonic Decl.”).

cost resale applied to TDM telephone service provided via ILEC copper loops undermines ILEC incentives to deploy fiber.<sup>10</sup>

The ILECs exhibit low aspirations for the level of broadband at which consumers should have competitive choice.<sup>11</sup> The level they advocate, 25/3 Mbps, has been recognized by the Commission in the *RDOF Order* as minimally adequate looking forward, in contrast to the Gigabit speeds (1000/500 Mbps) that the Commission has preferred in the upcoming RDOF auction that supports advanced networks over the next ten years.<sup>12</sup> As INCOMPAS has demonstrated, competitive choice and even availability is much weaker at the desired future-oriented broadband speeds of 1000/500 Mbps.<sup>13</sup> ILECs cannot fundamentally dispute that UNEs function as a bridge to fiber deployment which is bringing the higher speed connectivity that the Commission advances in its RDOF auction. Rather, ILECs just seek to blow up the bridge.

Moreover, ILECs are satisfied with consumers only having one, or at best, two choices in the marketplace. Consumers, on the other hand, have demonstrated that when they are provided another choice in the market, they use it, and the additional competition is driving better service to consumers.<sup>14</sup> The loss of UNEs and avoided-cost resale would negatively impact competition,

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<sup>10</sup> See Comments of Granite Telecommunications, LLC at 8-9 (filed Feb. 5, 2020) (“Granite Comments”). As used herein, the term “avoided-cost resale” applies to the use of avoided cost resale pursuant to Sections 251(c)(4) and 252(d)(3) to provide traditional TDM service via ILEC copper loops.

<sup>11</sup> See AT&T Comments at 19-20; CenturyLink Comments at 11, 44-46; USTelecom Comments at 33; Verizon Comments at 1-4.

<sup>12</sup> *Rural Digital Opportunity Fund*, Report and Order, FCC No. 20-5, WC Docket Nos. 19-126, 10-90, ¶¶ 4, 33, 38 (rel. Feb. 7, 2020) (“*RDOF Order*”).

<sup>13</sup> INCOMPAS Comments at 36-37.

<sup>14</sup> Over 11,000 customers have filed individually written comments to the FCC advocating that competitors are serving their needs—often better than the incumbent—providing significant

consumers, and the public interest.<sup>15</sup> The Commission’s reliance on what would be, at best, a broadband duopoly between two former monopolists, the ILEC and cable, to discipline rates and spur innovation cannot be reconciled with the Department of Justice’s (“DOJ’s”) assessment of the T-Mobile/Sprint transaction, in which the creation of a fourth competitor through a facilities-based MVNO—in a structure similar to UNEs—was a critical factor in the DOJ’s acquiescence to that transaction.<sup>16</sup> Abandoning the remaining UNEs and avoided-cost resale obligations now, when they are functioning to further competitive alternatives beyond a duopoly, would cause consumers to lose service, slow fiber deployment, and threaten public safety. For example, access to UNE dark fiber transport enables CLECs to offer wholesale access to other broadband providers, promoting broadband connectivity and increasing competition in the marketplace.<sup>17</sup> Additionally, access to UNE dark fiber transport enables CLECs to deploy fiber to schools and

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benefits such as faster speeds, better customer service and lower prices. *See* INCOMPAS Comments at 44-45, 45 n.168.

<sup>15</sup> *See, e.g.*, INCOMPAS Comments at 38-47; Comments of Electronic Frontier Foundation at 3 (filed Feb. 5, 2020); Comments of Public Knowledge at 2-10 (filed Feb. 5, 2020) (“Public Knowledge Comments”); Sonic Comments at 22-23; Declaration of Mark Sollenberg ¶¶ 10, 13, 16, attached to Letter from Mark Sollenberg, President, First Communications, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“First Communications Decl.”); Declaration of Fletcher Kittredge ¶¶ 11, 15, attached to Letter from Fletcher Kittredge, CEO, Biddeford Internet Corporation d/b/a GWI, to Marlene H. Dortch, Secretary, FCC (filed Feb. 5, 2020) (“GWI Decl.”); IdeaTek Decl. ¶¶ 10, 13; SnowCrest Comments at 4-5; TelNet Decl. ¶¶ 7, 13, 16; Uniti Comments at 1-3 (describing the negative impact of losing UNE dark fiber transport); Windstream Comments at 6-7, 35-37 (same); Granite Comments at 6-8 (describing the negative impact of losing avoided-cost resale).

<sup>16</sup> INCOMPAS Comments at 15-17.

<sup>17</sup> Letter from Angie Kronenberg et al., Chief Advocate & General, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 19-308, at 3 (filed Mar. 6, 2020) (“INCOMPAS 3/6/20 Ex Parte”).

libraries in the E-rate program and to customers in high-cost areas.<sup>18</sup> The availability of these competitive alternatives increases bidding options and encourages efficient use of Universal Service Fund (“USF”) dollars.

The Commission should reject the *NPRM*’s proposals, which go too far in eliminating competitive choice for consumers and the public interest benefits provided by UNE access and avoided-cost resale requirements. The ILECs’ proposal for nationwide elimination of the remaining UNEs would wreak even more harm by asking the Commission to ignore the differing levels of competition in specific product and geographic markets. To support eliminating the remaining unbundling requirements, ILECs and the *NPRM* rely on discredited Form 477 data to present an inaccurate picture of competition.<sup>19</sup> Even relying on ILECs’ flawed arguments that cable presents enough of a competitive alternative, cable companies’ networks do not provide nationwide coverage and are not present at all in some communities, particularly in rural areas.<sup>20</sup> This is especially true for the 1000/500 Mbps services preferred by the Commission in the RDOF auction.<sup>21</sup>

Another flaw in the *NPRM* is its proposed “rural” carveout for DS0 loops. This carveout is inadequate to protect urban consumers, who will demonstrably be denied developing

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<sup>18</sup> See *id.* at 2-3; IdeaTek Decl. ¶¶ 5, 11; Declaration of Brian Worthen ¶¶ 17, attached to Letter from Brian R. Worthen, CEO, Mammoth Networks, to Marlene H. Dortch, Secretary, FCC (filed Mar. 20, 2020) (“Mammoth Reply Decl.”).

<sup>19</sup> See, e.g., INCOMPAS Comments at 6-9; Mammoth Decl. ¶ 12; Socket Decl. ¶¶ 35, 73; Sonic Comments at 14-15; Public Knowledge Comments at 17-20; Windstream Comments at 34; Comments of U.S. TelePacific Corp. et al. at 12-15 (filed Feb. 5, 2020) (“TPx Comments”).

<sup>20</sup> See, e.g., Allstream Decl. ¶ 8; GWI Decl. ¶¶ 11, 15; IdeaTek Decl. ¶¶ 3, 8; Mammoth Decl. ¶¶ 2, 6; Socket Decl. ¶¶ 8, 15, 28; TelNet Decl. ¶ 13; Windstream Comments at 21.

<sup>21</sup> See INCOMPAS Comments at 17-18, 37.



alternatives to the ILEC and cable duopoly, to the extent there is even a duopoly.<sup>22</sup> But even if the Commission moves forward with sunseting “urban” UNEs, it should adopt a more expansive definition of rural. As the record shows, the many “urban clusters” that depend on and would lose CLECs’ UNE-based services are sparsely populated communities of as few as 2,500 people (and fewer households) that present similar barriers to entry as nearby “rural” areas.<sup>23</sup> The Commission should also exempt use for residential service, because this is a segment of the market that is hard to serve in any geographic area. For these same reasons, the proposal in the *NPRM* to eliminate avoided-cost resale in all geographic areas, even those classified as rural under the Commission’s proposal, should be rejected.<sup>24</sup>

With respect to transport, the record does not support placing an arbitrary 12-DS3s capacity threshold. The ILECs’ conflation of the higher capacity potential of dark fiber UNEs with higher *revenue* potential required to overcome entry hurdles is a *non sequitur*. Because per-Mbps revenue has dropped since the *TRRO*<sup>25</sup> in 2005 while the cost of labor and pole/right-of-

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<sup>22</sup> See, e.g., Allstream Decl. ¶¶ 6, 8 (explaining that losing access to UNE DS0 Loops would harm customers in urban areas such as Mesa, AZ; Black Hawk, CO; and Little Falls, MN that lack any cable alternatives); Declaration of John Hoehne ¶ 14, attached as Attachment 3 to Opposition of INCOMPAS et al. at 12-19, WC Docket No. 18-141 (filed Aug. 6, 2018) (“Access One Decl.”) (explaining that losing access to UNEs would harm Access One’s ability to service nonprofits, hospitals, and schools in lower-income, underserved urban neighborhoods that lack other competitive alternatives).

<sup>23</sup> See, e.g., Allstream Decl. ¶¶ 5-6; SnowCrest Comments at 3-4; Digital West Decl. ¶ 11; GWI Decl. ¶¶ 3, 10; Mammoth Reply Decl. ¶ 14.

<sup>24</sup> Granite Comments at 11-12 (explaining that VoIP and wireless telephone services are not substitutes for TDM service provided via ILEC copper loops, but even if they are substitutes, those services (and especially broadband needed to provide VoIP) are generally unavailable in the areas served by non-price cap ILECs).

<sup>25</sup> *Unbundling Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd. 2533 (2005) (“*TRRO*”); AT&T Comments at 31.

way access has only increased, the 12-DS3s capacity threshold in the *TRRO* is no longer a valid proxy for revenue potential to sustain new deployment.<sup>26</sup>

Lastly, if the Commission moves forward with eliminating remaining unbundling and avoided-cost resale (which it should not do), it should establish a longer transition period to prevent service disruption and provide CLECs sufficient time to secure alternative arrangements and expand their fiber facilities. Eliminating access to these UNEs prematurely risks stranding customers without service, stranding current CLEC investment, and depressing future facilities-based investment.<sup>27</sup> At minimum, the Commission should establish a seven-year transition for the remaining unbundled loops and avoided-cost resale, consistent with the transition period provided in the *T-Mobile/Sprint Order*<sup>28</sup> for DISH to become a facilities-based provider (Full MVNO), given the structural similarity between Full MVNOs and UNE-utilizing CLECs.<sup>29</sup> The seven-year period should also apply for new orders of unbundled loops and avoided-cost resale. A seven-year transition period is justified for UNE DS0 Loops and avoided-cost resale because both lack adequate commercial substitutes. Thus, they require substantial time, and significantly greater cost, for CLECs to construct replacements. UNE DS0 Loops also are key entry points for

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<sup>26</sup> Reply Comments of Windstream Services, LLC at 16-18 (filed Mar. 20, 2020) (“Windstream Reply Comments”).

<sup>27</sup> *See, e.g.*, Mammoth Reply Decl. ¶¶ 10-13 (explaining how Mammoth “would strand over \$105,000 in fiber investment and \$79,000 in equipment investment” in Hayden, Colorado and “would lose \$270,007 in fiber investment and \$79,000 in equipment investment in Craig,” Colorado if the *NPRM*’s proposal to eliminate unbundled dark fiber transport is adopted).

<sup>28</sup> *Applications of T-Mobile, Inc., and Sprint Corporation, et al.*, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, 34 FCC Rcd. 10578, ¶¶ 33-34, 194 (2019) (“*T-Mobile/Sprint Order*”).

<sup>29</sup> INCOMPAS Comments at 16-19.

competitive fiber deployment. A rushed transition period thus risks curtailing the deployment of future-proof networks.

The Commission should retain unbundled dark fiber transport, based on the record evidence that UNE dark fiber transport is critical for building last-mile fiber to isolated service areas, lacks adequate commercial substitutes, and would be significantly costly to replace.<sup>30</sup> Indeed, in some areas UNE dark fiber transport is irreplaceable. Eliminating UNE dark fiber transport would lead to an inefficient use of limited resources (including USF dollars) to overbuild where CLECs instead could integrate ILECs' available excess capacity with the CLECs' own high-capacity last-mile services to serve customers in isolated areas. No transition period would be able to offset the harms to consumers and fiber deployment.

## **II. THE RECORD DOES NOT SUPPORT THE PROPOSED ELIMINATION OF UNBUNDLED ACCESS AND AVOIDED-COST RESALE**

### **A. Access to UNEs and Avoided-Cost Resale are Vital to Innovation, Investment, and the Public Interest**

UNEs and avoided-cost resale are critical for furthering competitive alternatives in the marketplace. As the DOJ's assessment of the T-Mobile/Sprint transaction makes clear, the presence of competitive alternatives beyond a duopoly, with the additional presence of facilities-based MVNOs, is critical for constraining anticompetitive effects by disciplining prices and spurring innovation.<sup>31</sup> CLECs use UNEs and avoided-cost resale as a bridge to fiber and to provide innovative services often absent from incumbent offerings. They serve a similar role in the broadband market as facilities-based MVNOs in the mobile wireless market, disciplining prices and applying competitive pressure for ILECs and cable providers to innovate and increase

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<sup>30</sup> See *infra* Section III at 42; INCOMPAS 3/6/20 Ex Parte at 2; INCOMPAS Comments at 40.

<sup>31</sup> INCOMPAS Comments at 15-17.

facilities-based investment.<sup>32</sup> As the following examples make clear, eliminating the remaining bundling and avoided-cost sale obligations would cause consumers to lose service, would slow fiber deployment, and would threaten public safety.

*1. Loss of UNEs and Avoided-Cost Resale Reduces Incentives and Opportunities to Deploy Fiber and Next-Generation Services.*

The ILECs offer little more than conclusory statements that eliminating the remaining unbundling obligations would encourage the deployment of fiber and next-generation services.<sup>33</sup> They offer self-contradictory support, claiming that UNEs only make up a small part of the broadband supply even while arguing that eliminating this small amount of UNEs will significantly speed up the deployment of advanced networks.<sup>34</sup> The record reveals these premises as false. As previously noted, UNE competitive access incentivizes competitors and ILECs alike to speed up fiber deployment because copper unbundling obligations no longer apply once ILECs upgrade their copper networks to fiber facilities.<sup>35</sup> Eliminating avoided-cost resale similarly would reduce ILEC's incentives to replace with fiber the copper facilities used to provide traditional TDM service.<sup>36</sup>

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<sup>32</sup> *Id.*

<sup>33</sup> *See* Verizon Comments at 13; USTelecom Comments at 42, 56; CenturyLink Comments at 51.

<sup>34</sup> *See, e.g.,* USTelecom Comments at 48 (noting that dark fiber UNEs “have long represented a small proportion of dark fiber transport overall”); CenturyLink Comments at 57 (noting the “very small demand that exists for” UNE copper subloops); Verizon Comments at 20 (arguing “that instances of CLECs using DS0 loops in urban census blocks without cable are *de minimis*”); USTelecom Forbearance Petition at 18-19 (noting that resold lines and UNEs both “constitute a small and declining portion of competitive lines in the marketplace” and “[o]nly a small fraction of competitive offerings rely on [these]”).

<sup>35</sup> TPx Comments at 38-39; INCOMPAS Comments at 33-34; Sonic Comments at 27-28.

<sup>36</sup> Granite Comments at 15-16.

Indeed, ILECs' claims also fail to hold water when the record abounds with examples of CLECs using UNEs as intended by the Telecommunications Act of 1996—as key steppingstones to gain a customer base to move forward with their own fiber deployment and to spur ILECs and cable providers to upgrade services and build fiber.<sup>37</sup> In Oregon, Allstream uses UNE loops and dark fiber transport as a bridge to building fiber to small communities such as Corvallis and Oregon City.<sup>38</sup> Digital West uses UNEs to transition toward its fiber builds, which has pushed the local cable company Charter/Spectrum to upgrade speeds in San Luis Obispo County and AT&T to begin building limited fiber to the area's high end homes.<sup>39</sup> IdeaTek used UNE dark fiber transport to build a business case for deploying fiber to communities such as Andale, Kansas where AT&T and the cable operator had turned down the community's requests for broadband.<sup>40</sup> Only after IdeaTek's announcement of its intentions to deploy fiber did the cable operator announce that it too would overbuild with fiber-to-the-home.<sup>41</sup>

CenturyLink asserts that access to xDSL-capable loops incentivizes competitive providers to delay transitioning to fiber.<sup>42</sup> However, the record shows that many providers that started on xDSL-capable loops have steadily deployed their own fiber loops over time after they have acquired an initial customer base using unbundled loops. Access to UNEs, including UNE

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<sup>37</sup> See, e.g., INCOMPAS Comments at 17, 42, 44 n.167; Opening Comments of Raw Bandwidth Telecom, Inc. and Raw Bandwidth Communications, Inc. at 8 (filed Feb. 5, 2020) (noting Sonic's fiber deployment and Raw Bandwidth's focus on fiber builds in multitenant developments) ("Raw Bandwidth Comments"); Mammoth Decl. ¶¶ 2, 6 (currently providing broadband to around 3,000 customers over its own last-mile fiber network).

<sup>38</sup> Allstream Decl. ¶¶ 13-14, 28.

<sup>39</sup> Digital West Decl. ¶¶ 3, 19-20.

<sup>40</sup> IdeaTek Decl. ¶¶ 3, 7.

<sup>41</sup> *Id.* ¶ 8.

<sup>42</sup> CenturyLink Comments at 51.

DS0 Loops, enabled GWI to build a sufficient customer base to then construct a fiber network serving multiple markets in Maine, where its entry pushed the ILEC to upgrade services.<sup>43</sup>

Socket also uses unbundled loops to deploy more fiber over time; it currently has over 500 miles of its own fiber.<sup>44</sup> In 2019, Socket expanded its network by over 20% and it continues to construct new network facilities.<sup>45</sup> In yet another example, Sonic, using UNE DS0 Loops and dark fiber as the starting point, has built and transitioned “41% of its customers to its own fiber network, with additional hundred thousand plus locations currently under construction” and plans to continue expansion.<sup>46</sup> Loss of UNE competitive access would cause competitors to enter fewer new markets, slow fiber deployment, and would skew services toward large customers to justify the cost of fiber builds.<sup>47</sup>

UNEs, both loops and transport, are best positioned to encourage fiber deployment because unlike BDS, they do not require CLECs to make extended term commitments beyond the period needed to build fiber, thereby lowering the effective cost of deployment.<sup>48</sup> The price squeeze from substantially higher priced alternatives to UNEs would require CLECs to either abandon markets or to redirect capital from expanding fiber networks in new markets to

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<sup>43</sup> GWI Decl. ¶ 18.

<sup>44</sup> Socket Decl. ¶ 7.

<sup>45</sup> *Id.*

<sup>46</sup> Sonic Comments at 7, 26; Letter from Karen Reidy, Counsel for Sonic Telecom, LLC, to Marlene H. Dortch, Secretary, FCC (filed Feb. 27, 2020) (providing maps of Sonic’s fiber network and explaining how losing UNE access would strand Sonic’s investments and hurt its fiber network expansion efforts, including in areas where Sonic likely would need to exit) (“Sonic 2/27/20 Ex Parte”).

<sup>47</sup> Digital West Decl. ¶¶ 19-20.

<sup>48</sup> Allstream Decl. ¶ 13; Digital West Decl. ¶ 7.

replacing UNEs, slowing down the deployment of broadband.<sup>49</sup> Moreover, BDS price increases demonstrate a lack of competition and cannot be relied upon for wholesale access to enable more competition at the retail level.<sup>50</sup> After the *2019 USTelecom Forbearance Order*,<sup>51</sup> Socket experienced rate increases of 259% for a special access DS1 facility in BDS “competitive” counties to connect to a 911 Selective Router, with the dedicated transport mileage rate element alone increasing 421%.<sup>52</sup>

As another example, since the *BDS Order*, CenturyLink has increased the rates for special access DS1 channel terminations across the board in its price-cap and price-flexibility wire centers, whether urban or rural.<sup>53</sup> The price increases range from 28% to 150%.<sup>54</sup> Allstream experienced an even greater impact from these price increases because, prior to the *BDS Order*, CenturyLink offered a Regional Commitment Plan that allowed providers to purchase channel terminations and transport at a 22% discount off the monthly rate, with no term commitments on individual circuits.<sup>55</sup> CenturyLink discontinued the Regional Commitment

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<sup>49</sup> See Allstream Decl. ¶ 20, 26-28.

<sup>50</sup> See Allstream Decl. ¶ 15; First Communications Decl. ¶¶ 7, 11; TelNet Decl. ¶ 18; Socket Decl. ¶¶ 54, 56 (noting that special access DS1s Loops from CenturyLink of Missouri can “range from 140% to 189% higher than Socket’s average cost of UNE DS1 Loops” while “[c]ombinations of special access DS1 Loops and DS1 Transport range from 368% to 390% higher than cost-based rates for UNE DS1 EELs”); Windstream Comments at 24.

<sup>51</sup> *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, Memorandum Opinion and Order, 34 FCC Rcd. 6503 (2019) (“*2019 USTelecom Forbearance Order*”).

<sup>52</sup> Socket Decl. ¶ 55.

<sup>53</sup> Declaration of Douglas Denney ¶¶ 7-8, attached to Letter from Douglas Denney, Vice President, Costs & Policy, Allstream Business US, LLC, to Marlene H. Dortch, Secretary, FCC (filed Mar. 20, 2020).

<sup>54</sup> *Id.* ¶ 8.

<sup>55</sup> *Id.* ¶ 9.

Plan after the *BDS Order*, causing Allstream to experience an 86% to 221% price increase for DS1 channel terminations.<sup>56</sup> CenturyLink also substantially increased prices for special access DS1 transport. For example, CenturyLink increased rates by 31% to 54%, depending on the term commitment, for an eight-mile DS1 transport route.<sup>57</sup> With the Regional Commitment Plan discount discontinued, Allstream faced a price increase of 91%.<sup>58</sup> As for special access DS3 special access transport, CenturyLink increased rates by 53% to 96% in price-flexibility areas for an 8-mile transport route, with Allstream and its customers experiencing increases between 74% and 96%.<sup>59</sup> Since the *BDS Order*, AT&T, Verizon, and Frontier each have implemented similar price increases across their geographic territories. These BDS price increases demonstrate the lack of competition in the marketplace and are a basis for the Commission to conclude that its prediction that competition would increase in the market was inaccurate and that replacement products from the ILECs (to the extent they are offered) will be unreasonably priced and will harm competition and consumers and competitive fiber deployment.

Indeed, the harms from last year's forbearance of TDM transport that was based on the *BDS Order* already are occurring, and contrary to the ILECs' claims, the current record shows how the *USTelecom Forbearance Orders*<sup>60</sup> and the *NPRM* already have harmed fiber

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<sup>56</sup> *Id.*

<sup>57</sup> *Id.* ¶¶ 12-13.

<sup>58</sup> *Id.* ¶ 13.

<sup>59</sup> *Id.* ¶¶ 17-18 (describing the rate increases experienced by Allstream for an eight-mile special access DS3 transport route under CenturyLink's 60-month rates).

<sup>60</sup> *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks, et al.*, Report and Order on Remand and Memorandum Opinion and Order, 34 FCC Rcd. 5767 (2019); *2019 USTelecom Forbearance Order* (together the "*USTelecom Forbearance Orders*").



deployment. Socket, for example, lost a critical market entry tool when the *2019 USTelecom Forbearance Order* removed its ability to use DS1 EELs beyond the grandfathered period,<sup>61</sup> which Socket had used to build its customer base to deploy fiber in multiple markets, including the 100 miles of new fiber it placed in 2019 (a 20% network expansion).<sup>62</sup> Regulatory uncertainty over the *NPRM* hurt Mammoth’s ability to assess its future costs, hampering its ability to participate and help build tower and fiber construction for DISH’s 5G rollout.<sup>63</sup> SnowCrest similarly has halted its investment in wireless networks because losing competitive UNE access would harm its ability to serve customers and to improve the quality of fixed and mobile broadband.<sup>64</sup> And the “*NPRM* has already caused IdeaTek to alter [fiber] deployment plans in some very underserved markets in Kansas and simply abandon others.”<sup>65</sup> Digital West, too, notes that the announcement of the *NPRM* has negatively impacted its buildout plans to multiple markets in San Luis Obispo County because, without UNE access, it would be unable “to build customer bases that will eventually support fiber construction.”<sup>66</sup>

As a bridge to fiber, UNEs provide critical competitive stimulus to the deployment of future-proof networks. The Commission has recognized that moving beyond 25/3 Mbps is critical to meet the immediate and future broadband needs of consumers.<sup>67</sup> The *RDOF Order*

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<sup>61</sup> Socket Decl. ¶ 21.

<sup>62</sup> *Id.* ¶ 7.

<sup>63</sup> Mammoth Reply Decl. ¶ 18 (“Fewer competitors in the marketplace will drive up the cost of local fiber (to the 5G tower) with BDS-like pricing for transport, and will be the largest hurdles to deploying 5G in rural markets.”).

<sup>64</sup> SnowCrest Comments at 5-6.

<sup>65</sup> IdeaTek Decl. ¶ 13.

<sup>66</sup> Digital West Decl. ¶ 8.

<sup>67</sup> *RDOF Order* ¶¶ 31, 35.

gives preferred weight to Gigabit speeds while treating 25/3 Mbps as only minimally adequate.<sup>68</sup> It is CLECs who are actively deploying fiber network that is offering future-oriented speeds of 1000/500 and supporting the Commission's goals. We have urged the Commission to use 1 Gbps as the metric for assessing broadband availability and competition, to better incentivize fiber deployment that is needed to support both wired and wireless (5G) deployment in communities.<sup>69</sup> ILECs, on the other hand, would have the Commission assess the level of competitive choice based on the 25/3 Mbps standard.<sup>70</sup> CLECs have—and continue to—use UNEs to transition toward fiber and Gigabit speeds. When assessing whether enough competitive choice exists to warrant removing UNE access, the Commission should not rely on what is, at best, a broadband duopoly offering increasingly obsolete speeds that will not support the needs of the U.S. Indeed, the need for 1 Gbps networks has become even more apparent as we now are in the midst of a significant health pandemic that is severely impacting consumers and industries as more Americans are working from home, engaging in distance learning, and connecting with health and public safety online.

## *2. Loss of UNE Access Equates to Loss of Service for Many Underserved Customers*

Eliminating UNEs would prevent many customers from receiving the tailored and cost-effective services offered by CLECs. In many cases, CLECs utilizing UNEs are the only broadband options available to customers or are the only competitive alternative. IdeaTek provides the only broadband services to the Kansas towns of Bentley, Andale, and Mount Hope,

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<sup>68</sup> *Id.* ¶¶ 4, 33, 38.

<sup>69</sup> INCOMPAS Comments at 19, 36-37; *see* Sonic Comments at 15-16.

<sup>70</sup> *See* AT&T Comments at 19-20; CenturyLink Comments at 11, 44-46; USTelecom Comments at 33; Verizon Comments at 1-4.

and provides the only wireline broadband to unincorporated areas of Reno and Sedgwick counties.<sup>71</sup> Additionally, the majority of IdeaTek’s service territory lacks a cable operator.<sup>72</sup> Mammoth and its affiliated companies are the only competitive broadband provider in 51 communities and unincorporated areas, and it is the sole broadband provider offering more than 25/3 Mbps in 18 rural areas in Wyoming, including Saddlestring, Savageton, Bill, Lake De Smet, Van Tassel, Banner, Weston, Parkman, Yoder, and many others.<sup>73</sup> “In Saddlestring, Savageton, Bill, Lake De Smet, Van Tassel, Banner, Weston, Parkman, Kremmling, CO, Eagle, CO, Walden, CO, and Gypsum, CO, there is no cable operator, and Mammoth is the only competitor to the ILEC.”<sup>74</sup> In Ophir, Colorado, Mammoth and its parent company are the only broadband provider.<sup>75</sup> Additionally, Mammoth’s fixed wireless network serves over 14,000 customers, including 31 remote ranches and a one-room school in Wyoming that have no other terrestrial broadband option.<sup>76</sup>

In a number of exchanges that Socket serves, it is the only competitive choice and, sometimes, the only provider offering the specific services that customers demand.<sup>77</sup> In some areas within the exchange, Socket is the only service provider because neither the ILEC nor the incumbent cable companies are extending their networks into these new developments.<sup>78</sup> In a

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<sup>71</sup> IdeaTek Decl. ¶¶ 3, 8.

<sup>72</sup> *Id.*

<sup>73</sup> Mammoth Reply Decl. ¶ 3.

<sup>74</sup> *Id.*

<sup>75</sup> Mammoth Reply Decl. ¶ 4.

<sup>76</sup> *Id.* ¶ 8.

<sup>77</sup> Socket Decl. ¶ 15

<sup>78</sup> *Id.*

significant portion of its Maine markets, GWI is the only alternative to the ILEC for broadband business customers.<sup>79</sup> And in cities like Mesa, Arizona; Black Hawk, Colorado; and Little Falls, Minnesota, Allstream’s customers lack any cable alternatives to ILEC service.<sup>80</sup> Moreover, Allstream offers customizable voice and broadband services suited for the small and medium-sized business market, unlike the standardized services that the ILEC CenturyLink and the cable providers offer.<sup>81</sup> “Further loss of access to UNEs would affect Allstream’s ability to continue to provide service and would negatively impact nearly all of [its] customers.”<sup>82</sup>

As a harbinger of the service loss that the *NPRM*’s proposals risk causing, Digital West noted that it “is the only DSL broadband provider through a remote terminal in the Nacimiento Lake area northwest of Paso Robles,” and “[t]his remote terminal is now in the process of being decommissioned due to the impact of the [2019 *USTelecom Forbearance Order*].”<sup>83</sup> When the forbearance order rendered bonded T-1 EEL circuits no longer available, “Digital West was not able to justify further investment to continue operating the remote terminal,” and customers lost this service at the end of February, leaving them with “no wired Internet provider serving this area.”<sup>84</sup>

The likelihood of customers losing service also increases when ILECs are unlikely to offer commercial alternatives to UNEs like DSOs and dark fiber transport. As the record reflects, ILECs are not negotiating or offering viable commercial alternatives to already-forborne UNEs

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<sup>79</sup> GWI Decl. ¶ 11.

<sup>80</sup> Allstream Decl. ¶ 8.

<sup>81</sup> *Id.* ¶ 22.

<sup>82</sup> *Id.* ¶ 18.

<sup>83</sup> Digital West Decl. ¶ 6.

<sup>84</sup> *Id.*

such as voice-grade analog loops<sup>85</sup> or DS1 and DS3 transport for EELS.<sup>86</sup> Uniti Fiber has tried to negotiate amendments to interconnection agreements to account for changes from the *2019 USTelecom Forbearance Order*, but ILECs have been unwilling or unable to do so.<sup>87</sup> In Socket’s experience, ILECs are not offering commercial UNE-P replacement products in Missouri, “and the Commission should make no assumption with regards to ILECs making copper loops available on commercial terms.”<sup>88</sup> According to Raw Bandwidth, despite AT&T’s claims in the USTelecom forbearance proceeding record that it “‘intends to start reaching out to wholesale customers as early as November [2018] to begin discussions’ about commercial replacement for UNE products, including 2-wire loops,” AT&T has yet to reach out or put forward a proposal.<sup>89</sup> Other CLECs like GWI and Allstream also find that despite ILECs’ promises, commercial replacements for UNEs such as 2-wire loops remain nonexistent.<sup>90</sup>

### *3. Loss of UNEs and Avoided-Cost Resale Risks Jeopardizing Public Safety*

INCOMPAS agrees with the California Public Utilities Commission that “[t]he FCC must consider the impact on public safety for each requirement it proposes to remove.”<sup>91</sup> Public safety considerations favor retaining the remaining unbundling and avoided-cost resale requirements, because CLECs use UNEs and avoided-cost resale to provide public safety

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<sup>85</sup> TPx Comments at 33-34; Uniti Comments at 14.

<sup>86</sup> First Communications Decl. ¶ 12.

<sup>87</sup> Uniti Comments at 14.

<sup>88</sup> Socket Decl. ¶ 50.

<sup>89</sup> Raw Bandwidth Comments at 4-5.

<sup>90</sup> Allstream Decl. ¶ 26; GWI Decl. 15; Socket Decl. ¶ 50.

<sup>91</sup> Comments of the California Public Utilities Commission at 6 (filed Feb. 5, 2020).

institutions with tailored and reliable services at competitive rates. These competitive services enable public safety institutions to provide mission-critical communications.

First, the record supports retaining UNE operations support systems (“OSS”) for public safety because OSS plays an important role in number porting, directory listing, and 911 databases. As the CPUC points out, “[w]ithout this requirement, CLECs may struggle to resolve maintenance and repair issues that ultimately could adversely affect an end-user’s ability to reach emergency services.”<sup>92</sup> Nor can cable, which “lack[s] the OSS necessary for large scale ordering,” provide a competitive alternative.<sup>93</sup> The record shows that CLECs like TPx and Socket use UNE OSS to access 911 databases and connect through ILEC selective routers to PSAPs for 911 services.<sup>94</sup> Socket, which relies upon UNE facilities and trunking to reach these selective routers, has explained that, unlike ILECs, CLECs in Missouri are not permitted to charge public safety agencies to provide E-911 services, providing public safety agencies with another benefit from access to UNE-based competitive services.<sup>95</sup>

Eliminating access to other UNEs also risks jeopardizing public safety. GWI uses DS0 UNEs to provide service to 444 community anchor institutions, including hospitals, public safety institutions, emergency services, and municipal governments.<sup>96</sup> Eliminating UNEs would harm GWI’s ability to offer the innovative and customizable services that meet these institutions’ needs. And without GWI’s services, these institutions would have “no other sufficient option at

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<sup>92</sup> *Id.* at 5.

<sup>93</sup> INCOMPAS 3/6/20 Ex Parte at 2.

<sup>94</sup> INCOMPAS Comments at 31.

<sup>95</sup> Socket Decl. ¶ 9 n.4.

<sup>96</sup> GWI Decl. ¶ 17.

today's competitive cost" to perform their critical public safety and emergency operations.<sup>97</sup> Another CLEC, Mammoth, provides the only route redundant option to four rural hospitals in Wyoming and Colorado, the two largest PSAPs in Wyoming, five counties (including their law enforcement offices), and 16 towns and cities.<sup>98</sup> Mammoth also provides services to state agencies, including a statewide VHF public safety communications system.<sup>99</sup> Loss of UNEs would have serious negative impact on these consumers.

Eliminating UNE access risks driving CLECs out of product and geographic markets where they are the only providers meeting the public institution's needs. Using DS1 UNEs, TelNet provides service to connect a hospital system with its clinics; many of these clinics lack access to any other broadband option.<sup>100</sup> TelNet's DS1-TDM voice services meet the hospital's budget, reliability, and security needs.<sup>101</sup>

In yet another example, Socket relies on UNE DS1 Loops and grandfathered DS1 EELs to provide ISDN-PRI services to public safety institutions and emergency services, including "a state law enforcement agency that needed a local ISDN-PRI as a fail-over service to route calls to its headquarters in the event the remote site lost connectivity."<sup>102</sup> Socket is the only competitive choice for this agency to meet its specific needs.<sup>103</sup> Similarly, Socket serves a multi-location health care provider using a combination of UNE DS0 and DS1 Loops, resold ILEC

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<sup>97</sup> *Id.*

<sup>98</sup> Mammoth Decl. ¶ 10.

<sup>99</sup> *Id.*

<sup>100</sup> TelNet Decl. ¶ 8.

<sup>101</sup> *Id.*

<sup>102</sup> Socket Decl. ¶ 14.

<sup>103</sup> *Id.*

services, and Socket’s own fiber facilities.<sup>104</sup> Without competitive access to UNEs, Socket would be unable to serve this customer with a competitive alternative that meets its specific needs, and Socket is the *only* company able to meet these needs in most of the customer’s locations, *including in “competitive” BDS counties.*<sup>105</sup>

Avoided-cost resale also plays a critical role in public safety. Traditional TDM service provides the line-powered reliability that government agencies and public safety institutions rely on to operate during extended power outages.<sup>106</sup> No alternative services provide this functionality. As Granite notes, VoIP and wireless services are unavailable in many locations and, even where they are available, cannot function during extended power outages to be suitable for mission-critical communications.<sup>107</sup> The demand for TDM services provided via ILEC copper loops has become even more pressing as power outages have become more frequent and longer in duration due to extreme weather caused by climate change.<sup>108</sup>

**B. Nationwide Deregulation Would Eschew Commission Precedent and Deprive Underserved Areas of Many Advanced Services**

ILECs raise the same tired arguments for nationwide elimination of UNE competitive access and avoided-cost resale, presenting misleading, highly aggregated data that reveal little about the level of competition in a product or geographic market.<sup>109</sup> The ILECs’ assertions of competition in their service areas nationwide, to support their calls for nationwide deregulation,

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<sup>104</sup> *Id.* ¶ 19.

<sup>105</sup> *Id.*

<sup>106</sup> INCOMPAS Comments at 46-47.

<sup>107</sup> Granite Comments at 11.

<sup>108</sup> *See id.* at 5-6.

<sup>109</sup> *See, e.g.*, USTelecom Comments at 13-14, 23-24, 50; AT&T Comments at 2, 15; CenturyLink Comments at 10-11.



do not square with their dependence on USF support to deploy in geographic markets that lack competition to spur facilities-based investment.<sup>110</sup> Over the past three years, AT&T, CenturyLink, and Frontier have submitted the highest high-cost fund support claims, over \$4.5 billion total.<sup>111</sup> Similarly, USTelecom argues that the anticipated availability of higher bandwidth fixed wireless services will provide adequate competition.<sup>112</sup> However, it cites as support AT&T's deployment of fixed wireless facilities that is supported by the Commission's CAF II program,<sup>113</sup> which plainly contradicts the assertion that reasonably efficient providers can overcome revenue hurdles nationwide. Moreover, eliminating UNEs nationwide would be inconsistent with the *BDS Order's* findings that many counties are not competitive under the competitive market test. It would be arbitrary and capricious of the Commission to reverse those findings without collecting updated data and undergoing a reassessment of the competitive landscape.<sup>114</sup>

As noted above, many CLECs are the only competitive alternative or, in some cases, the only provider period to offer underserved areas broadband services.<sup>115</sup> This becomes even more evident when you examine the 1000/500 Mbps services that the FCC preferred in the RDOF

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<sup>110</sup> See Socket Decl. ¶ 42 (noting that ILECs' copper networks where unbundling requirements apply "were funded, at least in part, from 'regulatory revenues'" such as USF and CAF support payments).

<sup>111</sup> FCC, FED. AND STATE STAFF FOR THE FED.-STATE JOINT BD. ON UNIVERSAL SERV., 2019 FCC UNIVERSAL SERVICE MONITORING REPORT at 42 tbl.3.6, <https://prodnet.www.neca.org/publicationsdocs/wwpdf/2420usf.pdf>.

<sup>112</sup> USTelecom Comments at 16-17.

<sup>113</sup> See *id.*

<sup>114</sup> See Opposition of INCOMPAS at 60-61, WC Docket No. 18-141 (filed Aug. 16, 2018) ("INCOMPAS Opposition").

<sup>115</sup> See *supra* Section II.A.2 at 16.

auction. Indeed, some CLECs are combining UNE dark fiber interoffice facilities with their own fiber deployment to bid for and win CAF Phase II support to deploy broadband to unserved locations. For example, IdeaTek is the recipient of over \$6.1 million dollars in CAF II auction funding to deploy gigabit fiber to 2,490 underserved locations in Kansas.<sup>116</sup> IdeaTek expects the award to stimulate at least another \$6 million in additional infrastructure and supportive services investment to a total of over 4,500 locations.<sup>117</sup> These deployments rely on UNE dark fiber transport.<sup>118</sup>

ILECs' claims of ubiquitous nationwide competition generally rely upon flawed Form 477 data. Even accepting this unreliable data (which USTelecom and its members argue in other contexts that the FCC should not), cable providers do not provide nationwide coverage and are not present in all communities, particularly in rural areas. Moreover, cable providers do not serve the business market to the same extent as CLECs,<sup>119</sup> and their networks may be unsuitable for certain requirements of government and enterprise users, such as private networks, robust service level guarantees, and outage response times.<sup>120</sup>

**C. The Commission Should Not Limit Access to UNEs or Avoided-Cost Resale Based on Inaccurate or Misleading Data and Flawed Urban-Rural Definitions**

The Commission should not make policy based on inaccurate data or overly restrictive definitions of rural areas. First, the “nearly ubiquitous cable deployment” cited by the *NPRM*

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<sup>116</sup> IdeaTek Decl. ¶¶ 5, 11; INCOMPAS 3/6/20 Ex Parte at 2.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.*

<sup>119</sup> TPx Comments at 8-9.

<sup>120</sup> INCOMPAS Opposition at 31.

and ILECs<sup>121</sup> to justify the elimination of UNE DS0 Loops in “urban” areas rests on flawed Form 477 data.<sup>122</sup> As a testament to how seriously flawed the Form 477 data are, a recent study by BroadbandNow Research of more than 11,000 addresses estimates that 42 million Americans lack the ability to purchase broadband, about twice the number (21.3 million) estimated by the FCC using Form 477 data.<sup>123</sup> And this is a conservative estimate, since BroadbandNow could not check broadband availability of local ISPs and thus assumed that residents of these addresses could receive broadband.<sup>124</sup> For example, in Kansas, the FCC estimates 0.26 million are unserved but the BroadbandNow study estimates 0.52 million are unserved.<sup>125</sup> In California, the FCC estimates 1.17 million are unserved but BroadbandNow’s study estimates 2.35 million are unserved.<sup>126</sup>

Similarly, the National Association of Counties’ report on broadband availability reveals serious discrepancies between the speeds reported in the Form 477 data and actual speeds experienced by users. Approximately 65% of counties tested experience, on average, speeds

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<sup>121</sup> See *NPRM* ¶ 39 & nn.138-41; Verizon Comments at 20-21; AT&T Comments at 19.

<sup>122</sup> See INCOMPAS Comments at 6-9; Mammoth Decl. ¶ 12; Socket Decl. ¶¶ 35, 73; Sonic Comments at 14-15; Public Knowledge Comments at 17-20; Windstream Comments at 34; TPx Comments at 12-15. Nor can Form 477 data be used as a basis for eliminating avoided-cost resale used to provide TDM service via ILEC copper loops. See Reply Comments of Granite, MetTel, and Access One at 16-22, WC Docket No. 18-141 (filed May 28, 2019).

<sup>123</sup> JOHN BUSBY, JULIA TANBERK AND BROADBANDNOW TEAM, BROADBANDNOW, FCC REPORTS BROADBAND UNAVAILABLE TO 21.3 MILLION AMERICANS, BROADBANDNOW STUDY INDICATES 42 MILLION DO NOT HAVE ACCESS (2020), <https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent>.

<sup>124</sup> *Id.*

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

below 25/3 Mbps.<sup>127</sup> 77% of small counties (those with populations less than 50,000), 51.5% of medium counties (those with populations over 50,000 but under 500,000), and 19% of large counties (those with populations over 500,000) experience service levels below 25/3 Mbps.<sup>128</sup> Overreporting of broadband speeds in Form 477 data affects over 65% of counties, including 73.3% of small counties, 55.6% of medium counties, and 53.4% of large counties.<sup>129</sup>

As further evidence of how the Form 477 overstates availability and competition, Senator Joe Manchin urged the FCC not to proceed with the RDOF auction based on the current Form 477 data, noting that “the FCC’s 2019 Broadband Deployment Report claims that 100% of the population in seven West Virginian counties have access to high speed fixed broadband service (25/3 Mbps)” when in fact broadband speed tests from constituents in these counties reveal that each of those counties have “speeds well below” 25/3 Mbps.<sup>130</sup> INCOMPAS members also can attest to how the Form 477 data overstates broadband availability. Mammoth, for example, has been evaluating a fiber to the home project in Goshen County, Wyoming, where it found that the ILEC’s reporting 80 Mbps/10Mbps DSL availability within multiple census blocks is likely overstated because the largest employer in the area finds that the ILEC’s DSL cannot deliver the speeds needed for video conferencing and streaming.<sup>131</sup>

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<sup>127</sup> NAT’L ASS’N OF COUNTIES, UNDERSTANDING THE TRUE NATURE OF CONNECTIVITY IN AMERICA 2, 6 (2020), <https://www.naco.org/sites/default/files/documents/Understanding-the-True-State-of-Connectivity-in-America.pdf>.

<sup>128</sup> *Id.* at 6.

<sup>129</sup> *Id.* at 9.

<sup>130</sup> Letter from Joe Manchin III, U.S. Senator from West Virginia, to Ajit Pai, Chairman, FCC, at 1 (Feb. 27, 2020), <https://www.manchin.senate.gov/imo/media/doc/200227%20RDOF%20Signed%20Letter.pdf?cb>.

<sup>131</sup> Mammoth Decl. ¶ 12.

Although the Commission is proceeding with the first phase of RDOF auctions before new maps are available, that is because these areas are unserved even under the current flawed standard.<sup>132</sup> The Commission did not proceed immediately with the phase of RDOF bidding that depends upon more accurate maps. Under the same logic, the Commission should not rely on inaccurate Form 477 data to deprive unserved and underserved communities of the competitive options that CLECs use UNEs to provide, including the fiber deployment that UNEs help jumpstart. ILECs are selectively using Form 477 data to drive out competitors through removing UNE competitive access—all while disclaiming that same data when calling on the Commission to provide them with USF subsidies. It would be arbitrary and capricious for the Commission to apply the flawed data in one context but not the other.<sup>133</sup>

Although ILECs cite the availability of cable providers as evidence of non-impairment,<sup>134</sup> an incumbent cable entrant is a poor analogue for low barriers to entry. Cable providers, like ILECs, enjoy unique advantages as a historical monopoly, including existing pole attachments and associated agreements and existing customer relationships.<sup>135</sup> Entry by non-incumbents remains impaired without UNE competitive access, as they must build a customer base, negotiate pole arrangements, and deploy their own fiber networks. Significant barriers to entry remain for CLECs seeking to deploy their own loops and transport fiber, including anticompetitive agreements barring building entry to MTEs, the patchwork of local permitting processes and

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<sup>132</sup> *RDOF Order* ¶ 5 (proceeding with Phase I, which targets areas that are wholly unserved under current Form 477 data, while holding off on Phase II until the Commission has identified additional unserved locations through improving its current data collection).

<sup>133</sup> TPx Comments at 12-15.

<sup>134</sup> *See, e.g.*, CenturyLink Comments at 30.

<sup>135</sup> INCOMPAS Comments at 24.

timelines for fiber deployment, and the unavailability commercial substitutes for UNEs like DS0 Loops.<sup>136</sup>

*Urban Areas.* The *NPRM*'s proposed rural carveouts would harm urban consumers, depriving them of the innovation and competition that CLECs provide. For example, Access One uses UNEs, including DS0 loops, to serve nonprofits, hospitals, and schools in lower-income, underserved urban neighborhoods that lack other competitive alternatives.<sup>137</sup> Allstream would lose access to 95% of its UNE DS0s, which it uses to service customers in urban areas such as Mesa, AZ; Black Hawk, CO; and Little Falls, MN that lack any cable alternative.<sup>138</sup>

Additionally, the proposed carveout amplifies its negative impact by applying an overly restrictive definition of rural areas, excluding “urban clusters” with communities as small as 2,500 people (with smaller numbers of businesses and households).<sup>139</sup> As a result, eliminating UNE DS0 Loops in urban areas would harm less competitive and underserved areas that, by practical measures, are rural communities. At minimum, the FCC should exclude urban clusters (i.e., areas with 2,500 to 50,000 people) and residential service from the areas where it is eliminating UNE DS0s.<sup>140</sup> Residential service is a segment of the market that is hard to serve in any geographic area. Fiber deployment is significantly lacking in the residential market because it is “far less financially attractive to ILECs than in the business market.”<sup>141</sup> “Whereas a single enterprise customer might purchase a sufficient amount/capacity of custom services” to justify

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<sup>136</sup> INCOMPAS Comments at 25-27; Sonic Decl. ¶ 13.

<sup>137</sup> Access One Decl. ¶ 14.

<sup>138</sup> See Allstream ¶¶ 6, 8.

<sup>139</sup> See *NPRM* ¶ 42 n.154.

<sup>140</sup> See SnowCrest Comments at 4; Socket Decl. ¶ 85.

<sup>141</sup> Sonic Comments at 2, 4-5.

construction to its location,” a residential customer (or even a small group of customers) does not have “adequate monthly spending to justify building the network,” making UNE DS0 Loops critical “as an interim step to establish a sufficient subscriber-base” to transition toward fiber deployment.<sup>142</sup> Without a residential exemption, the *NPRM*’s proposal to eliminate competitive access to UNE DS0 Loops risks stranding the investments of CLECs such as Sonic and significantly diminishing competitors’ ability to expand their fiber networks, “resulting in a meaningful loss of facilities-based competition in the residential broadband marketplace,”<sup>143</sup> competition that is advancing future-proof networks offering 1 Gbps and higher speeds that the nation needs to meet bandwidth demands for both wired and mobile (5G) networks.

The *NPRM*’s restrictive “rural” definition is inconsistent with the definitions adopted by Congress and federal agencies to provide support to rural communities. For the Rural Health Care Program, the Commission adopted a broader definition of “rural area” to include areas with populations less than 25,000.<sup>144</sup> Since 2002, the Farm Bill defines “rural” and “rural area” as any area other than a city or town with a population greater than 50,000 (including the urbanized area contiguous and adjacent to such a city or town).<sup>145</sup> The 2018 Farm Bill retains this definition and, additionally, ensures that rural areas with an incorporated city of 20,000 or more are eligible for direct broadband loans and grants, while those with less than 10,000 permanent

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<sup>142</sup> Sonic Decl. ¶ 6.

<sup>143</sup> Sonic 2/27/20 Ex Parte at 2.

<sup>144</sup> 47 C.F.R. § 54.600(e) (defining “rural area” as “an area that is entirely outside of a Core Based Statistical Area; is within a Core Based Statistical Area that does not have any Urban Area with a population of 25,000 or greater; or is in a Core Based Statistical Area that contains an Urban Area with a population of 25,000 or greater, but is within a specific census tract that itself does not contain any part of a Place or Urban Area with a population of greater than 25,000”).

<sup>145</sup> 7 U.S.C. § 1991(a)(13); P.L. 107-171 § 6020.

residents receive priority in broadband loans and grants.<sup>146</sup> The *NPRM*'s "rural" definition would eliminate access to UNE DS0 Loops to many of these underserved communities, reducing competition and slowing broadband deployment in the exact areas where Congress is prioritizing deployment.

For example, SnowCrest serves communities like Mount Shasta that, with a total population of 3,300, is rural yet nevertheless would be considered an urban cluster.<sup>147</sup> SnowCrest would also be unable to serve these towns because the central offices in which it collocates are in "urban" census blocks where UNE DS0s would be unavailable.<sup>148</sup> Digital West would be unable to serve 46% of its customers, since almost all of its customers are in "urban" census blocks under the *NPRM*'s expansive definition, even though the Central Coast of California is actually quite rural.<sup>149</sup> For GWI, the loss of UNE DS0 Loops would negatively impact the 37 small town governments that it serves, all in sparsely populated areas with less than 50,000 residents.<sup>150</sup> The markets that GWI would be forced to exit if it loses UNE competitive access are considered rural by the residents and by other federal agencies.<sup>151</sup> Similarly, Allstream uses UNE DS0s to provide service in small towns where 45% of the towns have a population of less than 10,000.<sup>152</sup> The majority of the towns served by Allstream would

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<sup>146</sup> Agriculture Improvement Act of 2018, P.L. 115-334 § 6201; LIBRARY OF CONGRESS, CONGRESSIONAL RESEARCH SERVICE, 2018 FARM BILL PRIMER: RURAL DEVELOPMENT PROGRAMS 2(2019), <https://crsreports.congress.gov/product/pdf/IF/IF11225>.

<sup>147</sup> SnowCrest Comments at 3.

<sup>148</sup> *Id.* at 4.

<sup>149</sup> Digital West Decl. ¶ 11.

<sup>150</sup> *See* GWI Decl. ¶¶ 3, 10.

<sup>151</sup> *Id.* ¶ 10.

<sup>152</sup> Allstream Decl. ¶ 5.



be considered urban clusters despite their small populations.<sup>153</sup> Mammoth provides service to Craig, Hayden, and Steamboat Springs, Colorado, which “are all three part of an Urban Cluster, even though they are more than a dozen miles apart from each other and have individual populations as low as 1,932 people.”<sup>154</sup> Only two of the ten towns and cities where Mammoth has central offices and purchases UNE DS0s to provide ADSL2+ and VDSL residential service “reflect a true urban population” above 50,000.<sup>155</sup>

*Rural Residential and Enterprise Locations.* With respect to UNE DS1 and DS3 Loops, ILECs claim that the Commission should not create a rural residential exception because it would be difficult to distinguish between residential and enterprise locations.<sup>156</sup> INCOMPAS agrees that it is difficult to distinguish between residential and enterprise rural locations, given the regular overlap between the two.<sup>157</sup> But this is precisely why the Commission should expand its rural exemption to residential and enterprise use. This would ease any administrative burdens while also ensuring that rural consumers do not lose what may be their only broadband option because of an arbitrary distinction between residential and business use. Many small businesses are being operated out of residences, and they will be harmed if they lose the competitive provider’s service.

As established in the record, CLECs like Sonic and Virginia Global use DS1 UNE Loops to serve residential customers, including in rural areas where there is no other provider of

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<sup>153</sup> *See id.* ¶¶ 5-6.

<sup>154</sup> Mammoth Reply Decl. ¶ 14.

<sup>155</sup> *Id.*

<sup>156</sup> CenturyLink Comments at 40-41; *see* AT&T Comments at 17.

<sup>157</sup> INCOMPAS Comments at 24 (“[T]here is no reason to distinguish a residential farmhouse from a nearby farm office, feedlot, or grain elevator.”).

broadband service.<sup>158</sup> AT&T cites misleading data to suggest that the locations relying on UNE DS1-based residential services “are in most cases multi-million dollar mansions.”<sup>159</sup> The only data AT&T cites to back this claim is the “average value” of “a small handful of million-dollar homes” in locations served by Sonic.<sup>160</sup> The average value of these properties is hyperinflated by the high costs of the California real estate market (where median home value surpasses \$1 million in multiple markets<sup>161</sup>) and by the larger acreage of farmhouse properties (with an average of \$10,000 per acre<sup>162</sup> and an average total price of \$3.6 million across the state<sup>163</sup>). Whatever may be the case in California’s real estate market cannot be generalized and extrapolated to other locations nationwide. Out of context, AT&T’s data point paints a distortive picture of the residential customer base for DS1-based services.

Additionally, as with UNE DS0 Loops, the *NPRM*’s restrictive definition of “rural”—excluding communities with as few as 2,500 people—would deprive underserved communities

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<sup>158</sup> See INCOMPAS Opposition at 52-55; Opposition of Sonic at 2-4, WC Docket No. 18-141 (filed Aug. 6, 2018)..

<sup>159</sup> See AT&T Comments at 3, 17.

<sup>160</sup> *Id.* at 17.

<sup>161</sup> See, e.g., Jimmy Im, *If you bought a house in San Francisco 10 years ago, here’s how much it could be worth now*, CNBC (July 1, 2019), <https://www.cnbc.com/2019/07/01/how-much-a-san-francisco-house-bought-10-years-ago-could-be-worth-now.html> (reporting median home values of \$1.36 million in San Francisco and almost a million in the San Francisco metro area); *Pasadena, CA*, REALTOR, [https://www.realtor.com/realestateandhomes-search/Pasadena\\_CA/overview](https://www.realtor.com/realestateandhomes-search/Pasadena_CA/overview) (last visited Mar. 19, 2020) (reporting median home values of \$1.1 million in Pasadena); *Santa Clara Home Prices & Values*, ZILLOW, <https://www.zillow.com/santa-clara-ca/home-values/> (last visited Mar. 19, 2020) (reporting median home values of \$1.3 million in Santa Clara).

<sup>162</sup> Chloé Fowler, *California farm real estate values experience highest increase in the nation*, AGRIPULSE (Aug. 21, 2019), <https://www.agri-pulse.com/articles/12523-california-farm-real-estate-on-a-steady-rise>.

<sup>163</sup> *California Farm Land Information*, LAND AND FARM, <https://www.landandfarm.com/search/California/Farm-for-sale/> (last visited Mar. 19, 2020).

of UNE DS1 and DS3 Loops.<sup>164</sup> At minimum, the Commission should exclude urban clusters from the areas where it is eliminating UNE DS1 and DS3 Loops and should not limit its “rural” exemption to rural residential use. To be clear, if a rural definition is employed it should be expanded to include all areas with 50,000 or fewer in population, *and it should apply across all unbundled network elements at issue in this proceeding, as well as avoided-cost resale*. For example, Socket is using all UNE loop access to make a case for fiber deployment in rural areas, justifying the need for the rural exemption to apply across the board.<sup>165</sup>

**D. Section 251’s Impairment Standard Calls for Examining the Barriers to Entry that Remain for CLECs, Not Misapplying the *BDS Order*’s Price Discipline Factors**

The ILECs’ attempts to apply the *BDS Order*’s findings to a Section 251 impairment analysis cannot fix the problem that the framework adopted in the *BDS Order* focuses on whether there would be adequate competitive discipline on prices to ensure “just and reasonable” rates over the medium term, rather than Section 251’s statutory directive requiring the Commission to identify markers indicating lower entry barriers in the present.<sup>166</sup> The *BDS Order* findings regarding competition are not, as ILECs suggest, “equally ‘applicable to the unbundling context.’”<sup>167</sup> Under Section 251’s impairment standard, the appropriate analysis is whether, for a “reasonably efficient” competitor, “lack of access to an incumbent LEC network element poses a barrier or barriers to entry, including operational and economic barriers, that are

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<sup>164</sup> See *NPRM* ¶¶ 32, 34.

<sup>165</sup> Socket Decl. ¶¶ 8, 32.

<sup>166</sup> See *TRRO* ¶ 96 n.272; INCOMPAS Comments at 12-13.

<sup>167</sup> See AT&T Comments at 11-12; CenturyLink Comments at 28-29.

likely to make entry into a market uneconomic.”<sup>168</sup> In the *BDS Order*, the presence of competitive fiber within half a mile was used as a proxy for competitive pricing discipline. It is not comparable to the proxies for Section 251 impairment, which are “based on the characteristics of markets where actual deployment has occurred” and based on proxies for intramodal competition and revenue potential that would lower the barriers to self-deployment.<sup>169</sup>

*DS1 and DS3 Loops.* As established in the record, the presence of competitive fiber offers no conclusive evidence regarding the barriers to entry into the markets for DS1 and DS3 loops. Eliminating UNE DS1 and DS3 Loops at the county level fails to account for differences in entry barriers between different locations within the county. The Commission should maintain the existing wire-center-based approach. The appropriate impairment analysis would examine potential barriers to entry for a reasonably efficient competitor, including those that lack existing nearby assets.<sup>170</sup> As INCOMPAS previously explained, the impairment standard should look at whether a lack of UNE competitive access would create a barrier to entry for a reasonably efficient competitor service at speeds above 25/3, particularly at 1 Gbps to advance fiber deployment.<sup>171</sup> The Commission and ILECs in the RDOF proceeding recognized the importance of implementing a policy “that will look to the future and encourage more robust broadband deployments in rural areas now and further establish network infrastructure capable of

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<sup>168</sup> *TRRO* ¶ 26.

<sup>169</sup> *See TRRO* ¶ 28.

<sup>170</sup> INCOMPAS Comments at 19, 23.

<sup>171</sup> *Id.* at 19.

supporting 5G services.”<sup>172</sup> Thus ILECs encouraged increasing the baseline speed from 25/3 Mbps to 50/5 Mbps.<sup>173</sup> Yet the Commission should be pushing for competition—rather than universal service support—to drive 1000/500 fiber as deep and as wide as possible. Not only will this buttress robust wired connectivity, it also will support the nation’s 5G connectivity needs. The actual deployment decisions made by competitive carriers today reflect strong evidence of how a reasonably efficient competitor is entering on a forward-looking basis. CLECs are clearly choosing to build fiber, and only relying on other potential solutions, such as fixed wireless, in specific and limited situations.<sup>174</sup>

*Dark Fiber Transport.* Contrary to ILECs’ claims,<sup>175</sup> the presence of alternative fiber within a half-mile of a wire center does not reflect that competitive providers will have dark fiber available to lease. The record shows that the assumptions that an alternative fiber provider is leasing dark fiber and is willing to do so via a fiber splice point in the field is generally invalid.<sup>176</sup> USTelecom asserts that “where unbundled dark fiber is available, there are typically ample alternatives available as well.”<sup>177</sup> But it does not provide any support for this generalized statement.

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<sup>172</sup> See Reply Comments of CenturyLink at 3, WC Docket Nos. 19-126, 10-90 (filed Oct. 21, 2019); *RDOF Order* ¶ 4.

<sup>173</sup> See, e.g., Letter from Mike Saperstein, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 19-126, 10-90, at 1 (filed Jan. 15, 2020).

<sup>174</sup> Sonic Comments at 7, 20; Sonic Decl. ¶ 5; Allstream Decl. ¶¶ 13-14, 28; Digital West Decl. ¶¶ 3-4, 7, 20; GWI Decl. ¶ 18; IdeaTek Decl. ¶¶ 5, 8, 11, 13; Socket Decl. ¶¶ 15, 79.

<sup>175</sup> See, e.g., AT&T at 26.

<sup>176</sup> Socket Decl. ¶ 70; INCOMPAS Comments at 28; Windstream Comments at 18-20, 27-33.

<sup>177</sup> USTelecom Comments at 51.

Moreover, even if there are “alternatives,” the record shows that lit transport does not make a competitive provider less “impaired” because of its functional limitations; and even the presence of some dark fiber is not evidence there is available *metro* dark fiber as opposed to other forms (e.g., fiber to the tower, long-haul transport).<sup>178</sup> Long-haul and middle mile fiber are engineered differently and are not substitutable for unbundled dark fiber. Long haul fiber routes are designed to connect two distant points, and they are typically constructed with fewer strands than metro fiber because they are designed to meet the bandwidth transit between those points. They cannot be used as a substitute for local or middle mile fiber availability, because if a provider were to splice into those facilities (to use a strand for metro or local transit services), it necessarily leaves the rest of the strand going to the distant location unusable. For example, if a provider has a 20-strand run between Kansas City and Denver, taking one of those strands to support local service in Kansas City, Denver, or even Salina, Kansas would remove 5% of the bandwidth capacity between Kansas City and Denver. Long haul facilities are simply not intended or designed to do this, and as such, should be removed from any consideration of whether alternatives exist for purposes of facilities availability.

Nor can competitive providers use cable facilities as a wholesale alternative for unbundled dark fiber transport, regardless of how close those facilities lie to ILEC wire centers or customer locations.<sup>179</sup> Cable providers do not make available to CLECs the connection between the cable headend and the customer location.<sup>180</sup> Besides, the fiber between a cable

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<sup>178</sup> INCOMPAS Comments at 28-30; Windstream Comments at 3, 14-17; Sonic Comments at 19.

<sup>179</sup> Comments of INCOMPAS at 10, 13-14, WC Docket Nos. 18-141, 17-144, 16-143, 05-25 (filed May 9, 2019) (“INCOMPAS Transport Comments”).

<sup>180</sup> Windstream Comments at 19; INCOMPAS Transport Comments at 10.

headend and neighborhood node is not substitutable for unbundled dark fiber because it is usually engineered as a middle mile transport network.

The record contains multiple examples where CLECs lack competitive alternatives to UNE dark fiber transport. Digital West has no competitive dark fiber or lit services between central offices, rendering the only option available ILEC lit services that add operational complexity, cost increases by a factor of 40, and significant delay.<sup>181</sup> In “the vast majority of markets,” Windstream lacks access to alternative dark fiber and would be forced to exit.<sup>182</sup> Uniti Fiber and GWI also have no substitute dark fiber provider in a significant number of central offices.<sup>183</sup> TelNet has “no alternative fiber providers for the vast array of” central offices in Michigan’s underserved and remote upper peninsula.<sup>184</sup> Even where TelNet does have a dark fiber alternative, the alternative became available because TelNet “had secured the critical mass of customers,” using UNEs, to build the economic case for this investment.<sup>185</sup> Eliminating UNE access, as the *NPRM* promotes, will limit future success stories like these.<sup>186</sup>

Contrary to ILECs’ claims,<sup>187</sup> options such as self-deployment or third-party BDS services are not adequate alternatives to UNE dark fiber transport, particularly in less dense markets that lack the level of demand and revenue potential for the CLEC (or a nearby fiber

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<sup>181</sup> Digital West Decl. ¶ 14.

<sup>182</sup> Windstream Comments at 2.

<sup>183</sup> GWI Decl. ¶ 16; Uniti Comments at 8.

<sup>184</sup> TelNet Decl. ¶ 17.

<sup>185</sup> *See id.* ¶ 16.

<sup>186</sup> *Id.*

<sup>187</sup> *See, e.g.,* AT&T Comments at 4.

owner) to shoulder the enormous costs to overbuild existing ILEC interoffice route.<sup>188</sup> The costs of replacing UNE dark fiber are staggering and uneconomic. As previously stated in the record, Sonic estimated that self-deploying a replacement “would ‘cost over \$580 million,’ an over 100-fold increase on its current monthly transport costs even when amortized over 20 years.”<sup>189</sup> In its mostly-suburban areas, Windstream estimates it would cost \$35 million in each market to overbuild ILEC dark fiber—and this is an “optimistic” estimate that that assumes straight-line distances between wire centers and does not factor in other expensive and time-consuming challenges such as pole and rights-of-way access.<sup>190</sup> Across its CLEC markets, Windstream provides a “conservative” estimate of nearly \$400 million to replace all the dark fiber UNEs it uses in metro fiber rings.<sup>191</sup> The actual cost is likely much higher.

For a smaller provider like GWI, it would cost around \$3.4 million to build fiber to nine central offices where it lacks any substitute dark fiber provider, “a very steep price that will be difficult to afford without federal or state funding.”<sup>192</sup> Similarly, Digital West estimates that it would cost \$1 million to \$2 million to self-deploy and duplicate the dark fiber UNEs between central offices, resulting in Digital West “either abandon[ing] networks in small cities due to costs [it] cannot bear, or redirect[ing] capital from expanding fiber networks in new cities to replacing the dark fiber UNEs, both of which would slow the deployment of broadband to new areas.”<sup>193</sup>

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<sup>188</sup> INCOMPAS Comments at 29; Uniti Comments at 2.

<sup>189</sup> INCOMPAS Comments at 30.

<sup>190</sup> Windstream Comments at 25.

<sup>191</sup> *Id.* at 26.

<sup>192</sup> GWI Decl. ¶ 16.

<sup>193</sup> Digital West Decl. ¶ 14.



Other deployment challenges add to cost and time delays. For example, Uniti Fiber finds that “in some cases it is impractical or impossible” to build its own transport facilities because of barriers such as state and local permitting and regulatory delays and physical barriers to deployment.<sup>194</sup> In Alabama, the state with the most navigable waterways, the local departments of transportation prohibit Uniti Fiber from attaching to bridges over waterways and other infrastructure.<sup>195</sup> And there are prohibitions on boring river levees.<sup>196</sup> In Colorado, Mammoth would be unable to recreate dark fiber from Craig to Hayden or from Hayden to Steamboat Springs, “as it would represent a significant new build over difficult mountainous terrain.”<sup>197</sup> Similarly, SmartCom stated that the pole owner in its area has set the wind rating significantly higher than National Electric Safety Code requirements such that SmartCom cannot attach to the pole 75% of the time unless it replaces the entire pole—adding significant engineering costs, construction costs, and time.<sup>198</sup>

Moreover, as explained above, lit fiber is not an adequate substitute but, even if it was, the costs are similarly uneconomic. Digital West would face price increases by a factor of 40 to purchase ILEC lit services.<sup>199</sup> Sonic estimated the cost of purchasing commercial wholesale Ethernet transport to surpass 700 times the cost of its current unbundled dark fiber while for

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<sup>194</sup> Uniti Comments at 2.

<sup>195</sup> *Id.*

<sup>196</sup> INCOMPAS 3/6/20 Ex Parte at 2.

<sup>197</sup> Mammoth Reply Decl. ¶ 12.

<sup>198</sup> INCOMPAS 3/6/20 Ex Parte at 2-3.

<sup>199</sup> Digital West Decl. ¶ 14.

Allstream replacing its dark fiber UNEs with lit transport would result in a price increase of between nearly 400% and nearly 1800%.<sup>200</sup>

Lastly, the Commission should reject AT&T's proposal to set an arbitrary 12-DS3s capacity threshold to cap the availability of unbundled dark fiber. The *TRRO*'s impairment analysis focused on "identify[ing] where revenue opportunities are or could be sufficient to justify competitive LEC deployment."<sup>201</sup> In other words, the relevant factor is the impact that limiting competitive access to dark fiber would have on the competitors' revenue potential, rather than the capacity that the dark fiber is able to support. Thus, it would be arbitrary for the Commission to place a capacity limit on unbundled dark fiber, particularly without analyzing its impact on competitors' revenue potential.

AT&T's proposal is misguided for several reasons. First, the Commission's refusal in the *TRRO* to impose a capacity limit for dark fiber recognizes that unbundled dark fiber and unbundled DS3 transport serve different functions.<sup>202</sup> Dark fiber is not a lit service. Unlike with DS3 transport, CLECs still have to make significant investments to be able to carry traffic over the fiber. Not placing a capacity limit thus incentivizes CLECs to invest in equipment to use what would otherwise be excess fibers. Current equipment costs make it financially unwise for competitive providers to build networks that support less than 1 GB of transport (as capped by a 12-DS3 limit), with 10 GB being the optimal option.

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<sup>200</sup> INCOMPAS Comments at 30. For Allstream, even assuming that ILECs make dark fiber available at commercial rates, its total "transport costs would rise by more than \$4,000,000 a year," and "Allstream will be forced to pass these costs onto its end users." Allstream Decl. ¶ 24.

<sup>201</sup> *TRRO* ¶ 87.

<sup>202</sup> Windstream Reply Comments at 17.

Second, the record presents no economic rationale for any effective limit on how much the CLEC can invest in upgrading the electronics attached to dark fiber for additional capacity. By its nature, dark fiber UNEs allow for a more economical deployment of capital and thus facilities.<sup>203</sup> Rather than overbuilding in locations where the ILEC has already deployed and has unused strands of fiber, CLECs can access unbundled dark fiber to free up more capital for last-mile deployments. CLECs are the ones investing to make the excess fiber usable. Once a CLEC has already sunk the capital to light the dark fiber, there would be no public benefit (to consumers or competition) for the Commission to limit the capacity of that fiber.<sup>204</sup>

Third, even AT&T recognizes that per-Mbps revenue has declined over time.<sup>205</sup> The revenue potential represented by the 12-DS3 capacity has decreased since the *TRRO* while the cost of labor and pole, conduit, and right-of-way access rights has only increased. As a result, the 12-DS3s capacity threshold in the *TRRO* is no longer a valid proxy for revenue potential to sustain new deployment.<sup>206</sup> For these reasons, adopting a 12-DS3 capacity threshold would result in an inefficient use of capital, overbuilding, and dampened last-mile deployments. The Commission should not adopt an arbitrary standard that runs counter to the public interest.

### **III. THE *NPRM*'S RUSHED TRANSITION PLAN WOULD DISRUPT SERVICE AND IMPEDE COMPETITIVE FIBER DEPLOYMENT**

As discussed above, UNEs and avoided-cost resale incentivize and enable competition, innovation, and investment, furthering the public interest. In the face of this evidence, the

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<sup>203</sup> See *TRRO* ¶ 135 (“[D]ark fiber allows for very efficient use of facilities that incumbent LECs have already deployed but that would otherwise lay fallow.”).

<sup>204</sup> Windstream Reply Comments at 17.

<sup>205</sup> AT&T Comments at 31.

<sup>206</sup> Windstream Reply Comments at 18.

Commission should preserve both regulatory tools. If the Commission decides to eliminate the remaining protections for UNE competitive access and avoided-cost resale, however, it should adopt a longer transition period to safeguard consumers from service disruption and provide CLECs time to complete their use of UNEs and expand their own fiber facilities.<sup>207</sup> At minimum, this requires a seven-year transition for loops, with respect to competitive providers' current customer base *and* new orders. The same seven-year transition should apply to avoided-cost resale and DS0 loops since the two requirements apply to the same ILEC loops.

As for dark fiber, the Commission should retain the current unbundling requirements, based on the record evidence demonstrating the integral nature of dark fiber and the significant expense of replacing it (where it can be replaced—as we discussed above there are areas where it is irreplaceable). Eliminating UNE dark fiber transport would lead to an inefficient use of limited resources, including the expenditure of additional USF dollars to overbuild fiber, when CLECs could instead be utilizing ILECs' available excess capacity to serve customers in remote areas with CLECs' high-capacity last mile services. No transition period would be able to offset the harms to consumers and fiber deployment.

A seven-year transition for loop access and avoided-cost resale would be consistent with the transition period provided in the *T-Mobile/Sprint Order* for DISH to acquire the assets and transitional services needed to become a facilities-based MVNO.<sup>208</sup> As previously explained, this creation of DISH as a fourth facilities-based competitor was a critical factor in the DOJ's

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<sup>207</sup> INCOMPAS Comments at 18-19; Clear Rate Comments at 3; TPx Comments at 34-35; *see* Sonic Comments at 17.

<sup>208</sup> *T-Mobile/Sprint Order* ¶¶ 33-34, 194; INCOMPAS Comments at 18.

acquiescence to the T-Mobile/Sprint transaction.<sup>209</sup> The Commission should follow a similar timeframe here because CLECs using UNE loop competitive access have the same competitive capabilities and role in local fixed broadband markets as a Full MVNO in the mobile wireless market.<sup>210</sup> This timeframe also would be consistent with the approach adopted in the *USF/ICC Transformation Order*, where the Commission provided six to nine years for carriers to reduce termination and transport rates on a fixed scale, to ensure “a gradual, measured transition that will facilitate predictability and stability.”<sup>211</sup>

A longer transition period for the existing customer base and new orders is particularly important for UNE DS0 Loops and avoided-cost resale, because both lack adequate commercial substitutes and require more time (and greater cost) for CLECs to construct replacements. UNE DS0 Loops are key entry points for competitive fiber deployment, and CLECs require enough time for existing and new orders to build a customer base that then leads to fiber buildout.<sup>212</sup> And for DS1 and DS3 loops, the ability to place new orders for seven years is critical so that (1) competitors can respond to technical issues that arise when ILECs do not respond to trouble tickets in a timely fashion, and competitors are forced to order new loops in order to keep customers’ service from being disrupted; (2) customers are not cut off from their competitive provider when they decide to move locations and need provisioning to a new location that does

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<sup>209</sup> INCOMPAS Comments at 15-17.

<sup>210</sup> *Id.* at 16-17.

<sup>211</sup> *Connect America Fund, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 17663 ¶ 35 (2011) (“*USF/ICC Transformation Order*”) (six years for price cap carriers and nine years for rate-of-return carriers).

<sup>212</sup> *See supra* Section II.A.1 at 10.

not have access to fiber;<sup>213</sup> and (3) competitors are using these loops as a temporary means to serve the customer until they are able to build fiber to their location.<sup>214</sup> With respect to avoided-cost resale, it should be treated similarly to DS0s given that both rely on access to the copper loop and there are no alternatives available for competitors that rely on avoided-cost resale.<sup>215</sup>

The transition period for loops should account for the fact that many customer contracts last *a minimum* of three to five years.<sup>216</sup> As TPx notes, the fallout from the Commission's forbearance of analog DS0 Loops reveal that the six-month ordering period is far too short. ILECs have not offered CLECs like TPx any commercial replacement product for analog DS0 loops.<sup>217</sup> A longer transition period is warranted when ILECs are unwilling and are under no obligation to offer commercial alternatives. Moreover, as noted above, many CLECs depend on UNEs to serve customers in remote locations or with tailored services where the CLEC may be the customer's only option in the foreseeable term.<sup>218</sup> Without adequate commercial alternatives, CLECs will need more time to construct facilities to avoid stranding customers without service.

For example, even Sonic, a CLEC that has successfully deployed fiber and has transitioned 41% of its customers to its fiber network, would require UNE access for many years

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<sup>213</sup> Many business locations still lack access to fiber and only the ILEC network is available for provisioning of service.

<sup>214</sup> As INCOMPAS members have discussed, the current rates of BDS are so high that it negatively impacts the business case to build fiber.

<sup>215</sup> See Granite Comments at 16 (explaining that UNE DS0 loops and avoided-cost resale should be available in the same circumstances because the two regulations apply to "exactly the same facilities").

<sup>216</sup> TPx Comments at 34; see Allstream Decl. ¶ 16.

<sup>217</sup> *Id.*

<sup>218</sup> See *supra* Section II.A.2 at 16.

to smoothly transition toward fiber facilities. This is because Sonic’s UNE-served “customers are spread across over 100 cities and nearly 200 wire centers, while fiber customers are concentrated in a much more limited footprint.”<sup>219</sup> Sonic’s “fiber network coverage remains less than 1/10th that of the portion of [its] network relying on UNE loops.”<sup>220</sup> A longer multi-year transition period would factor in the numerous deployment challenges facing CLECs, from securing conduit or pole attachments, right-of-way easements, access to multi-tenant or commercial buildings, and a patchwork of local permitting requirements.<sup>221</sup> CLECs like TelNet may require five to ten years to build out a network to replace the lost UNEs, with five years being feasible only “when economic and area conditions are favorable.”<sup>222</sup>

The Commission should retain the current unbundling rules for UNE dark fiber transport. INCOMPAS members integrate dark fiber into their high-capacity last mile services, and the record demonstrates how UNE dark fiber transport is critical for building last-mile fiber to

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<sup>219</sup> Sonic Decl. ¶ 8.

<sup>220</sup> *Id.* ¶ 4.

<sup>221</sup> INCOMPAS Comments at 25-27; INCOMPAS 3/6/20 Ex Parte at 2-3; Uniti Comments at 2, 8-11 (explaining that CLECs face burdensome local regulations and often have limited access to attaching new fiber deployments to bridges or other infrastructure, leaving ILEC UNEs their only option in certain geographic areas); Sonic Comments at 11; Sonic Decl. ¶ 13; Socket Decl. ¶¶ 37-41 (explaining that a network construction build takes significantly longer than the *BDS Order*’s predicted three to four months); Digital West ¶ 12 (explaining that it “faces significant barriers to deploy last mile fiber to every one of its current DSO customers” affected by the NPRM’s proposals, such as inconsistent local regulations and slow, discriminatory pole and street access positions); First Communications Decl. ¶ 19 (explaining that, unlike ILECs, CLECs do not have a large pre-existing customer base to spread last mile deployment costs or incumbency advantages such as existing ubiquitous conduit or aerial attachments, right-of-way easements, and access to commercial buildings); TelNet Decl. ¶ 20 (listing barriers such as red tape from make ready, pole attachments, and environmental studies).

<sup>222</sup> TelNet Decl. ¶ 20.

isolated service areas.<sup>223</sup> It will take significant time for CLECs to build replacements for UNE dark fiber transport as lit fiber transport is not available in most instances and has functional limitations that render it an inadequate substitute for dark fiber.<sup>224</sup> In some cases, the “dark fiber is simply irreplaceable” because of state or local restrictions on attaching facilities to bridges or prohibitions on boring river levees,<sup>225</sup> or local terrain challenges.<sup>226</sup> Moreover, replacing this dark fiber would be not only a costly option (to the tune of hundreds of millions of dollars)<sup>227</sup> but also an inefficient use of limited resources.

Eliminating UNE dark fiber transport would strand significant amounts of CLEC investment. For example, in its Hayden, Colorado market alone, Mammoth “would be forced to exit the market and strand over \$105,000 in fiber investment and \$79,000 in equipment investment.”<sup>228</sup> Additionally, Mammoth would be forced to exit its market in Craig, Colorado, “los[ing] \$270,997 in fiber investment and \$79,000 in equipment investment.”<sup>229</sup> Similarly, the significant amount of investments that Sonic has made in central office facilities and UNE loop serving equipment “would become stranded and worthless with the loss of UNE interoffice dark fiber and xDSL-capable DS0 loops.”<sup>230</sup> The *NPRM*’s proposal could lead to additional USF

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<sup>223</sup> INCOMPAS 3/6/20 Ex Parte at 2; INCOMPAS Comments at 40.

<sup>224</sup> See *supra* Section II.D. at 33.

<sup>225</sup> INCOMPAS 3/6/20 Ex Parte at 2.

<sup>226</sup> See Mammoth Reply Decl. ¶ 12 (“Mammoth would be unable to recreate dark fiber from Craig to Hayden (17.2 miles) or from Hayden to Steamboat Springs (25.4 miles), which was installed under cost-plus pricing, as it would represent a significant new build over difficult mountainous terrain.”).

<sup>227</sup> See INCOMPAS Comments at 31-32.

<sup>228</sup> Mammoth Reply Decl. ¶¶ 10-11.

<sup>229</sup> *Id.* ¶ 13.

<sup>230</sup> Sonic Decl. ¶ 10.



dollars (E-rate and high-cost funding) being used to overbuild fiber, instead of allowing CLECs to put ILECs' available excess capacity to use.<sup>231</sup> This wastes USF funds even more where the ILEC relied upon CAF support to build its fiber backhaul networks.<sup>232</sup> Prematurely cutting off access to these UNEs risks depressing facilities-based investment, stranding CLEC investment of last-mile fiber, and stranding customers without service.

Given all the above challenges, the *NPRM*'s proposed three-year transition period for existing customers is already too short. An even shorter transition, such as the 18-month period or the deadline of August 2, 2022 proposed by ILECS<sup>233</sup> would further exacerbate problems. Tying this transition to the transition deadline from the USTelecom forbearance proceeding makes no sense. To support this unreasonable argument, ILECs again rely on faulty logic that CLECs should have acted, from the day USTelecom filed its forbearance petition, as if the petition would be granted in its entirety.<sup>234</sup> CLECs had no way of knowing the petition's outcome and should not be penalized for reasonably continuing to operate and enter into new contracts with customers under the existing rules.

Nor should the Commission place weight on the *TRRO*'s shorter transitions periods for high-capacity loops or DS1, DS3, and dark fiber transport.<sup>235</sup> These areas in the *TRRO* were some of the most competitive, while the areas addressed in the *NPRM* reach a wider variety of geographic markets with different competitive conditions, including areas where the

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<sup>231</sup> See INCOMPAS 3/6/20 Ex Parte at 2.

<sup>232</sup> *Id.*

<sup>233</sup> AT&T Comments at 33; CenturyLink Comments at 64-65, USTelecom Comments at 65-66.

<sup>234</sup> See CenturyLink Comments at 64.

<sup>235</sup> *NPRM* ¶ 102.

Commission is relying on predictions of “potential” competition to discipline prices over time. Thus, the Commission should establish a longer period for CLECs serving less competitive areas to transition and prevent service disruption.

#### **IV. CONCLUSION**

For the foregoing reasons, the Commission should reject the *NPRM*'s proposals to eliminate remaining unbundling and avoided-cost resale requirements. Incumbent providers fail to provide actual evidence or a coherent theory for how UNEs have slowed broadband investment. Instead, the record reveals that preserving UNE access and avoided-cost resale will promote the deployment of next-generation services and enable competitors to continue providing critical, innovative services to meet the needs of underserved communities and public safety institutions.

Even if the Commission moves forward with the *NPRM*'s proposals, it should modify its rural definition so that areas with 50,000 or fewer in population will continue to have competitive access through all the unbundled network elements and avoided-cost resale available to continue to spur competition and competitive fiber deployment in hard-to-serve rural areas. In addition, it should establish, at minimum, a seven-year transition for loops and avoided-cost resale, both for competitive providers' current customer base and new orders. The Commission should retain competitive access to unbundled dark fiber. These actions would prevent service disruption and provide CLECs sufficient time to secure alternative arrangements and expand their fiber facilities.

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