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**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding  
Broadband Infrastructure Deployment and to  
Support Service Providers in the State of  
California.

R.20-09-001  
(Filed September 10, 2020)

**OPENING COMMENTS OF AT&T CALIFORNIA (U 1001 C) ON  
E-MAIL RULING ORDERING ADDITIONAL COMMENTS AS PART OF THE  
MIDDLE-MILE DATA COLLECTION**

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Pursuant to the Administrative Law Judge’s *E-Mail Ruling Ordering Additional Comments as Part of Middle-Mile Data Collection* (“Ruling”) issued September 9, 2021 in this proceeding, Pacific Bell Telephone Company d/b/a AT&T California (U 1001 C) (“AT&T”) hereby submits opening comments.

## **I. INTRODUCTION**

California Government Code Section 11549.54(a), enacted by Senate Bill 156, requires the Commission to provide a staff report (“Staff Report”) recommending the locations for a middle-mile broadband network. Pursuant to Section 11549.54(b), the Commission must identify middle-mile network locations to enable last-mile service connections in communities where there is no known middle-mile infrastructure that is open access, with sufficient capacity, and offered at affordable rates. In Phase 3 of this proceeding, the Commission is gathering public comment to serve as the basis for its Staff Report as required by Senate Bill 156. AT&T supports the Commission in its efforts to develop a robust factual record to form the basis for its recommendations regarding the location of the state’s middle-mile network.

With respect to the Staff Report, California Government Code Section 11549.54(f)(1) directs the Commission to “solicit and receive public comments” on two issues related to the middle-mile broadband networks: (A) the current locations, routes, availability, technical performance characteristics, and other aspects of commercial sources of supply of middle-mile broadband network services, and (B) the locations, routes, technical performance characteristics, network design, regeneration points, interconnection points and tie-ins, and other design, technical, business, and operational considerations that would increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial internet service providers.

To meet its statutory obligation to issue the Staff Report, the Assigned Commissioner's Ruling ("ACR") issued on August 6, 2021 requested information on a series of questions including questions related to the Commission's Anchor Highways Map. Numerous parties submitted opening and reply comments on September 3 and 21, 2021, respectively. In addition, on September 15, 2021, the Commission issued an extensive data request to facilities-based service providers regarding detailed data on existing fiber networks. This Ruling seeks additional public comment on a series of questions, some of which involve issues that have already been addressed by parties in their comments in response to the ACR. As discussed herein, some of the questions in the Ruling address issues that are beyond the scope of what Senate Bill 156 tasked the Commission to consider when preparing its Staff Report.

AT&T supports the Commission in developing the factual record for its recommendations regarding the location of the state's middle-mile network. With the information gathered from numerous parties in response to the Ruling and the ACR along with the data responses, the Commission will have a basis for issuing the Staff Report. AT&T encourages the Commission to issue its Staff Report as soon as possible to expedite the planning and construction of middle-mile facilities, where necessary, to bring broadband services to California consumers who do not currently have access to such services. In addition, as parties have noted in their comments in this proceeding, there are legal deadlines for spending the funds at issue. Therefore, the Commission should quickly provide the Staff Report so that planning and construction can begin. The state's middle-mile should also be identified quickly so that any funds not needed for middle-mile facilities can be allocated to the last-mile construction required to provide broadband service to unserved households.

## II. OPEN-ACCESS

**How can the Commission use its regulatory authority to assure durable and enforceable open-access and affordability requirements in perpetuity? Should the Commission adopt a tariffing requirement for open-access networks?**

Senate Bill 156 does not authorize the Commission to issue regulations, such as tariffs, for middle-mile networks, and such a topic is clearly beyond the scope of this phase which is to issue a Staff Report recommending locations for the state's middle-mile network. Furthermore, any such regulation would damage the market for broadband services. Enormous investments in the broadband network market have been driven by increasing consumer demand for more bandwidth and the rapid evolution of wireline, wireless, and satellite technologies. To ensure a sustainable market for continued deployment of broadband services in the future, the Commission should refrain from regulatory mandates, such as tariffing requirements, that could have the unintended consequence of interfering with a fast-growing market for advanced communications services. A similar approach should be followed for the management of the state's middle-mile network, which should focus on serving unserved rural areas. As with the existing broadband market, local conditions compel allowing middle-mile service providers and last-mile service providers to negotiate prices, terms, and conditions for interconnections to the state's middle-mile network.

Furthermore, the question related to tariffing requirements for services using middle-mile networks raises significant questions about the Commission's jurisdictional authority over broadband networks and services. While the Commission has regulatory authority over intrastate telecommunications services, it has no jurisdiction or authority to adopt common carrier-type regulations on broadband services, and it does not have regulatory authority to require tariffing of broadband services. As AT&T observed in comments submitted in reply to

the Administrative Judge’s Ruling of May 28, 2021,<sup>1</sup> broadband internet access services are jurisdictionally interstate services, which the FCC has classified as information services under the Communications Act.<sup>2</sup> The D.C. Circuit has upheld that regulatory classification. Courts have repeatedly held that federal law makes information services immune from common carrier regulation.<sup>3</sup> Under well-established principles of conflict pre-emption,<sup>4</sup> any attempt by this Commission to impose common carrier regulations on broadband services would directly conflict with, and undermine, both the federal statutory scheme governing these interstate services and the FCC’s policy judgment to classify broadband service as an information service free from common carriage obligations.<sup>5</sup>

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<sup>1</sup> *Reply Comments of AT&T California ( U 1001 C on Assigned Administrative Law Judge Ruling, Rulemaking (R.)20-09-001*, at 21-24 (July 26, 2021).

<sup>2</sup> *Memorandum Opinion and Order*, NARUC Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data, 25 FCC Rcd. 5051, ¶ 8 n.24 (2010); *see also* Report and Order, *Protecting and Promoting the Open Internet*, 30 FCC Rcd. 5601, ¶ 431 (2015) (“Open Internet Order”), *pets. for review denied*, *USTelecom v. FCC*, 825 F.3d 674 (D.C. Cir. 2016); Declaratory Ruling, Report and Order, and Order, *Restoring Internet Freedom*, 33 FCC Rcd. 311, ¶¶ 21-64, 86-154 (2018) (“Internet Freedom Order”).

<sup>3</sup> *Verizon v. FCC*, 740 F.3d 623, 650 (D.C. Cir. 2014); *Cellco P’ship v. FCC*, 700 F.3d 534, 538 (D.C. Cir. 2012); *Mozilla*, 940 F.3d at 17; *Open Internet Order* ¶¶ 307, 328. Section 153(51) of the Communications Act provides that a “telecommunications carrier shall be treated as a common carrier under this chapter *only* to the extent that it is engaged in providing telecommunications services.” 47 U.S.C. § 153(51) (emphasis added). The FCC has long held “telecommunications services” and “information services” to be mutually exclusive categories. *Mozilla*, 940 F.3d at 18-19; *Internet Freedom Order* ¶¶ 53, 62; *see also NCTA v. Brand X Internet Servs.*, 545 U.S. 967, 975-76 (2005). Thus, it follows that a communications provider cannot be treated as a common carrier to the extent it is providing information services, and courts have agreed that information services are therefore “statutorily immune” from any common carrier regulations. *Cellco P’ship*, 700 F.3d at 538.

<sup>4</sup> *See, e.g., Onoek, Inc. v. Learjet, Inc.*, 575 U.S. 373, 377 (2015) (“federal law must prevail” over state law if “compliance with both state and federal law is impossible or if the state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress” (quotations omitted)).

<sup>5</sup> *See, e.g., Ray v. Atlantic Richfield Co.*, 435 U.S. 151, 178 (1978) (“The Court has previously recognized that where failure of . . . federal officials affirmatively to exercise their full authority takes on the character of a ruling that no such regulation is appropriate or approved pursuant to the policy of the statute, States are not permitted to use their police power to enact such a regulation” (quotations omitted)).

An attempt by the Commission to regulate affordability and pricing of broadband services would constitute rate regulation, which is a form of common carrier regulation.<sup>6</sup> A federal court recently enjoined a statute in New York that would have required broadband providers to offer service to qualifying customers at no more than \$15 per month, finding the statute was preempted.<sup>7</sup> An open access requirement would similarly be preempted as a form of common carrier regulation.

Regulation of broadband service prices to promote affordability – whether the services are inputs to broadband services, such as transport services, or retail prices of services consumers ultimately pay for broadband service in a competitive market – would be unlawful as well as an imprudent approach. Any such mechanism likely would be tied up in costly judicial proceedings for years. All of this would divert resources from more productive uses, such as further extending last-mile broadband services to California consumers. For these reasons and because the matter is out of scope, Commission requirements for middle-mile services should not be considered in this proceeding.

Finally, as AT&T noted in comments submitted on September 3 and 21, 2021 in this proceeding, its existing middle-mile network meets the considerations related to open access and affordability, and thus, there is no need to overbuild AT&T’s network.<sup>8</sup> Comments filed by parties to this proceeding also confirm that existing middle-mile facilities in California meet the

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<sup>6</sup> See *MCI Telecomms. Corp. v. AT&T Co.*, 512 U.S. 218 (1994).

<sup>7</sup> *New York Telecomms. Assoc., Inc. et al v. James*, 2:21-cv-2389 (E.D.N.Y. 2021) at 20-21. A California federal district court recently reached the opposite conclusion and permitted California’s net neutrality law, Senate Bill 822, to go into effect, on the theory that Section 153(51)’s use of the phrase “under this chapter” means that information services are immune only from the FCC’s common carrier regulation.<sup>7</sup> However, that ruling is inconsistent with Ninth Circuit precedent, and an appeal of the denial of a preliminary injunction is currently pending. *ACA Connects v. Becerra*, No. 18-cv-2684 (E.D. Cal. Feb. 23, 2021).

<sup>8</sup> *Reply Comments of AT&T California (U 1001 C) on Assigned Commissioner’s Ruling Dated August 6, 2021 Re Middle-Mile Broadband Network*, R.20-09-001 at 9-12 (Sept. 21, 2021).

statutory definition of open access and affordability,<sup>9</sup> as does AT&T Dedicated Internet service.<sup>10</sup> Senate Bill 156 requires the Commission to issue a Staff Report addressing these issues with respect to existing middle-mile facilities. Senate Bill 156 does not require the Commission to pursue a generic examination of open access and affordability.

**In October 2020, the Federal Communications Commission (FCC) eliminated a number of network unbundling and resale requirements placed on Incumbent Local Exchange Carriers including requirements for DS1 and DS3 loops, and dark fiber transport provisioned from wire centers within a half-mile of competitive fiber networks. (See *In the Matter of Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services*, WC Docket No. 19-308, FCC 20-152) How will this impact Competitive Local Exchange Carriers in California that currently utilize these services to provide telecommunications service, including last-mile broadband Internet access service?**

The 2020 FCC Order eliminating unbundling requirements in certain areas should not adversely impact Competitive Local Exchange Carriers (“CLECs”). The FCC’s Order reflects the agency’s considered determination, based on an extensive record, that reasonably efficient CLECs would not be impaired by the lifting of burdensome unbundling requirements in specific areas. In coming to this conclusion, the FCC considered a number of factors.

First, DS1 and DS3 loops are becoming obsolete, as their bandwidth levels and lack of scalability are not sufficient to provide the robust and flexible next-generation services customers require.<sup>11</sup> Indeed, demand for DS1 and DS3 services has been decreasing as technologies such as ethernet-based services are taking their place. Recognizing this, the FCC found that “a reasonably efficient competitor would not use UNE DS1 and DS3 Loops as a reasonably

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<sup>9</sup> *Id.* at 9, fn. 30 (citing comments of Comcast, Frontier, SCE, and Cox).

<sup>10</sup> *Id.* at 10-11.

<sup>11</sup> See, e.g., *In the Matter of Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services*, WC Docket No. 19-308, FCC 20-152 (Oct. 27, 2020), paras. 32-33.



efficient technology for entering the enterprise services market” in areas where the FCC granted unbundling relief.<sup>12</sup>

Second, in issuing its order, the FCC recognized the importance of competitive alternatives and only granted relief where it found that competition existed. For example, for DS1 and DS3 loops, the FCC granted unbundling relief only in areas the agency previously determined were competitive in its Business Data Proceeding.<sup>13</sup> For digital DS0 loops, the FCC found “sufficient evidence of facilities-based competition and competitive entry” to grant relief in urbanized area census blocks.<sup>14</sup> For Dark Fiber, it concluded that “competitive LECs are no longer impaired without access to UNE Dark Fiber Transport provisioned from wire centers within a half mile of competitive fiber” and noted that CLECs are increasingly building their own fiber.<sup>15</sup>

Third, the relief granted by the FCC reflects a negotiated compromise between the ILECs’ trade group, USTelecom, and the CLECs’ trade group, INCOMPAS. After negotiations spanning several months, the two groups filed a joint proposal for new UNE rules, which the order adopted in full.<sup>16</sup> Thus, CLECs generally supported the FCC’s decision to forbear from unbundling requirements in competitive areas. Moreover, the FCC’s order includes significant transition periods to allow CLECs currently using UNEs to pivot to alternative solutions, whether to a CLEC’s own facilities or to products obtained through the commercial marketplace. Transition periods range from three to eight years, with the latter period applicable to UNE Dark Fiber Transport. As described above, the FCC had ample reason to determine that the lifting of

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<sup>12</sup> *Id.* at para. 32.

<sup>13</sup> *Id.* at para. 31.

<sup>14</sup> *Id.* at para. 59.

<sup>15</sup> *Id.* at paras. 116-18.

<sup>16</sup> *Id.* at paras. 20-21.

unbundling requirements would not harm reasonably efficient competitors, and this Commission should not take any steps that would contradict this determination.<sup>17</sup>

### **III. ADDITIONAL FACTORS TO CONSIDER**

#### **A. Affordability**

Section 11549.54(b) states “[t]he commission shall identify statewide open-access middle-mile broadband network locations that will enable last-mile service connections and are in communities where there is no known middle-mile infrastructure that is open access, with sufficient capacity, and at affordable rates.” The issue of affordability was addressed in the comments submitted by numerous parties in response to the ACR. Some commenters conflated the affordability of the existing middle-mile networks, which is what the statute addresses, with the affordability of broadband prices charged to end-user residential and business customers. The statute requires that the focus be on the middle-mile prices that currently are charged. AT&T addressed this in its opening and reply comments on the ACR and included confidential pricing on its ADI service in its reply comments. Based on this information and the comments provided by other commenters who own and operate middle-mile networks, the affordability criterion for middle-mile has been met, and the Commission should find that existing middle-mile networks are offered at affordable prices in California’s competitive market.

#### **B. Redlining**

In comments submitted on July 2 and 26, 2021 in this proceeding, AT&T and other providers demonstrated their wireline deployments proportionally serve customers regardless of income or race. The evidentiary record in this proceeding also overwhelmingly confirms there is no disparity in broadband deployment based on income or race in California. Therefore,

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<sup>17</sup> See 47 U.S.C. Sections 251(d)(3)(B)-(C).

redlining is not a concern in the context of identifying locations for the state's middle-mile network.

Consistent with Senate Bill 156, the primary goal should be to identify unserved households in California. The unfounded accusations of "redlining" are a distraction from the goal of providing adequate broadband service to all Californians. As with many of the following categories, redlining is not included as a factor in Section 11549.54 for the Commission to use in considering where to locate the network. The statute requires a network to provide service to unserved households; how those households came to be unserved is not a factor the Legislature asked to be considered.

### **C. Route Redundancy**

Section 11549.54 does not include redundancy as a criterion for determining the location of the state's middle-mile network. Rather, the statute requires construction of the network where it is needed to provide broadband service to those who currently are unserved. The use of state funding to create redundant routes is unwise and would be an inefficient use of resources unless and until all Californians have adequate access to broadband. Furthermore, redundancy is merely one means of making a network more resilient. For example, if fire mitigation is a concern, redundant aerial facilities are not a good means of building a more resilient network because if there is a fire, all the aerial facilities would be destroyed. A better way of creating a resilient network that will withstand fires is to underground the facilities. As this example demonstrates, redundancy does not necessarily by itself render a network more resilient. Finally, if all the funding allocated for middle-mile facilities is not needed, then those remaining dollars

should be directed to the construction of last-mile projects to provide unserved households and should not be spent on redundant facilities.<sup>18</sup>

#### **D. Competition**

Section 11549.54 directs the Commission to consider certain criteria for determining where to recommend the location of a middle-mile network and does not include competition as a factor. However, in addressing the affordability of the existing middle-mile network, AT&T discussed in its opening comments on the ACR that where middle-mile services have been deployed, the Commission should find those services are affordable because providers have strong incentives to ensure customers can afford to purchase their products and robust competition disciplines rates.<sup>19</sup> Intense competition exists and provides the internet connectivity services that rely on these competitively supplied middle-mile transport facilities. The competition, at both the internet service and underlying middle-mile transport levels, ensures the relevant rates are affordable in those areas.<sup>20</sup>

#### **E. Hardening, Undergrounding, Deployment in High Fire Threat Areas**

Section 11549.54 also does not include hardening, undergrounding, and deployment in high-fire threat areas as factors for the Commission to consider in determining where the state's middle-mile network should be located. These factors, which are outside the scope of the relevant statute, are related to how the network should be designed, not the need for service. These factors will be considered by the engineering teams in the normal course of planning the network.

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<sup>18</sup> See *AT&T Opening Comments on Assigned Commissioner's Ruling and Proposal*, Rulemaking (R.) 18-03-011, at 41-42 (April 3, 2020).

<sup>19</sup> *Opening Comments of AT&T California (U 1001 C) on Assigned Commissioner's Ruling Dated August 6, 2021 Regarding Middle-Mile Broadband Network*, Rulemaking (R.) 20-09-001, at 12 (Sept. 3, 2021).

<sup>20</sup> *Id.* at 17.

## **F. Cell Coverage**

The Ruling does not specify how cell coverage would be used in the selection of middle-mile routes for the state's network. If the question is to consider building or extending middle-mile to areas that have insufficient or no cell coverage, cell coverage would not be a necessary or useful criterion for determining middle-mile network locations. The statutory criteria of 25/3 Mbps should be used as the threshold to identify unserved areas.

If the question is whether the Commission should include wireless facilities in its review of existing networks to determine where the state middle-mile network should be built, Senate Bill 156 does not specify that wireless facilities can be considered as part of the existing network structure. The Commission itself has defined "Middle Mile" to mean "high-capacity fiber-optic cables that traverse long distances (e.g., 10s-100s of miles) to connect communities to the Internet backbone."<sup>21</sup> Accordingly, the Commission's approach excludes wireless networks in its evaluation of where to build the state-owned network.

In terms of determining locations of the state's broadband network to connect with last-mile wireless backhaul services, Senate Bill 156 specifies using the state's middle-mile network to enable last-mile connections for unserved consumers and anchor institutions and does not include consideration of last-mile wireless backhaul services. Section 11549.54(b) states "[t]he commission shall identify statewide open-access middle-mile broadband network locations that will enable last-mile service connections and are in communities where there is no known middle-mile infrastructure that is open access, with sufficient capacity, and at affordable rates." Thus, the provision of last-mile wireless backhaul services should not be included in the Commission's consideration of where the middle-mile network should be located.

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<sup>21</sup> *Assigned Commissioner's Ruling*, Rulemaking (R.) 20-09-021, at 4 (Aug. 6, 2021).

## **G. Labor and Economic Development Benefits**

Section 11549.54 does not include labor and economic development as factors for consideration on where the state's middle-mile network should be located. Nonetheless, AT&T notes that generally, bringing broadband services to unserved areas would be expected to support the creation of more economic opportunities. However, economic development is impacted by many factors, and just because an area is lagging in development does not mean the area lacks broadband service. Rather, it could be that consumers have access to broadband services but have not subscribed to them due to issues related to affordability and other considerations. These issues must also be addressed to ensure consumers actually use the facilities constructed with public funds.

In terms of labor involvement in the construction of the state's middle-mile network, the use of long-term leases may minimize the amount of actual construction required. To the extent the state constructs facilities, it may decide that unionized labor is the best choice in terms of bringing broadband services to unserved consumers.

## **IV. MIDDLE-MILE NETWORK SERVICES FOR ISPS**

**What specific locations, routes, interconnection points, regeneration points, and tie-ins should the Commission consider in order to increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial internet service providers? How can existing interconnection points or the creation of new interconnection points improve access for communities? What technical performance characteristics will increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial internet service providers? What network design and other design, technical, business, and operational considerations will increase the attractiveness and usefulness of the statewide open-access middle-mile broadband network for commercial Internet service providers? What services should the network provide commercial providers (e.g., dark fiber, lit fiber, colocation, wireless backhaul, etc.)? If the network offers dark fiber, how many strands of dark fiber should the network make available on each route? What should the lease terms be?**

To function and exchange traffic, the middle-mile networks must interconnect with existing fiber networks. Instead of overbuilding existing networks, middle-mile facilities funded by the state should be designed to interconnect with other networks at established interconnection points, such as central offices or carrier hotels. However, the identification of specific interconnection points as well as other network design issues, including the number of fiber strands, should be determined after the location of the middle-mile network facilities have been identified. As CENIC observed in its comments submitted on September 21, CDT and CENIC are well positioned to determine design and interconnection requirements. Further, CENIC noted:

In addition to building fiber, there are other components and facilities throughout the network that are essential for a network to function successfully. CENIC believes that these kinds of potentially complex design, operational, and inter-operational elements are ultimately best suited for network engineers and operators.<sup>22</sup>

## **V. MIDDLE MILE NETWORK SERVICES FOR CONSUMERS**

**Should the statewide middle mile network provide direct service to anchor institutions? Should the middle-mile network directly provide broadband Internet access service, voice service, etc.? The Commission's 72-hour backup power requirements apply to all facilities-based wireline and wireless communications service providers that provide service in Tier 2 and Tier 3 High Fire Threat Districts. Should the Commission consider additional requirements?**

The Commission should recommend and prioritize the locations for the construction of the middle-mile network based on connections to last-mile facilities to unserved end-user customers. If anchor institutions are located in proximity to the middle-mile network, they could interconnect directly with the network. In this case, the anchor institution would provide any last-mile facilities needed to interconnect. In terms of the Commission's back-up power

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<sup>22</sup> *Reply Comments of the Corporation for Education Network Initiatives in California (CENIC) to the Assigned Commissioner's Ruling, Rulemaking (R.) 20-09-021, at 3-4 (Sept. 21, 2021).*

requirements that apply to commercial providers, the same requirements should apply to state-operated middle-mile facilities. However, the requirements for how the middle-mile network operates should be determined by CENIC as part of the design and engineering process for building the network.

## **VI. LAST-MILE PROVIDERS**

**How can the middle-mile network enable last mile connections in unserved, underserved and served areas of the state? How can the middle mile network assist the operation and development of public broadband networks? Are there opportunities to aggregate network monitoring, provide a managed voice service, security services, call center, and other back-office services among public networks?**

The state's middle-mile networks should be designed and constructed to enable last-mile connections for unserved households. The barrier to connectivity for unserved households is often the lack of last-mile fiber facilities. That is why last-mile projects are crucial to improving service to unserved households in California.<sup>23</sup>

In its opening comments submitted on September 3, 2021, AT&T outlined how the Commission's Anchor Highways Map should be revised to only recommend middle-mile facilities where necessary and then the state should use the remaining funds for last-mile facilities. Specifically, once routes needed to connect unserved communities have been identified where no fiber facilities exist today, further analysis is needed to ensure there are unserved households associated with each route. Section 11549.54(d) requires that the Commission "prioritize locations that enable last-mile connections to residences unserved by 25Mbps downstream and 3Mbps upstream." Granular mapping of unserved households in proximity to the Build Highway Segments will be required to prioritize where to build.

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<sup>23</sup> *AT&T Opening Comments on the Assigned Commissioner's Ruling, Rulemaking (R.) 20-09-001 at 7 (Sept. 3, 2021).*



While the Commission has received comments from numerous parties in this proceeding regarding how to identify where the state's middle-mile network should be built, the issue of prioritizing Build Highway Segments based on proximity to unserved households has yet to be resolved. This prioritization should be addressed expeditiously so that the Staff Report can be completed.

The question regarding how the middle-mile network can assist public broadband networks with activities, such as call centers and back-office services, seeks information that is speculative and not related to Senate Bill 156. The purpose of the state's middle-mile network is to provide broadband service to unserved households in this state. The funds are not to be spent on providing call centers and other ancillary functions for public networks, to the extent such networks exist in the state. The Commission's focus should remain on providing broadband services to the unserved by identifying routes for the state's middle-mile network in its Staff Report.

## **VII. OTHER STATES**

**Are there any successes or pitfalls the State of California should take into consideration from other statewide open-access networks or even from other countries?**

California has proposed construction of a statewide, open-access middle-mile network to facilitate the provision of last-mile connectivity to end users in unserved communities. Many of the examples cited by the Commission in other states have encountered significant financial setbacks or were built to serve very different purposes. Consequently, these examples do not provide helpful models for California to follow.

In several states, the financial burden of constructing and operating a state network has impeded its capacity to connect end-users. A 2017 study of twenty municipal fiber projects determined that 11 suffered from negative cash flow. For most of the projects that generated

positive cash flow, this was so minimal that the period for recovering investment in the network would have exceeded the useful lifetime of a fiber network.<sup>24</sup>

Regarding the examples cited by the Commission, the state-run KentuckyWired middle-mile network had a similar aim to that of California, but it has suffered delays related to gaining easements and rights-of-way as well as costs that apparently exceeded the initial budget by more than \$100 million. At present, the State of Kentucky plans to direct federal stimulus funds to new last-mile projects, and the future of KentuckyWired appears unclear.<sup>25</sup> Networks in Virginia and Washington also received significant investments of state and federal funds to provide connectivity to economically disadvantaged areas, but they have struggled to generate positive cashflow, operating at a loss for the past several years.<sup>26</sup> In contrast, the success of the North Carolina Research & Education Network appears mostly due to the use of endowment funds and foundation grants.<sup>27</sup>

The more successful examples involve networks that primarily provide connectivity for educational or research entities, but these have little role in connecting unserved end users. The core purpose of the Illinois Century Network, the Michigan Merit Network, and the Ohio Academic Resources Network is to provide connectivity to educational and research organizations in these states; providing access for last-mile connectivity for end users is an

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<sup>24</sup> Christopher Yoo and Timothy Pfenninger, *Municipal Fiber in the United States: An Empirical Assessment of Financial Performance*, at 12 (May 2017).

<sup>25</sup> Kriston Capps, *The Hitch in Kentucky's Plan to Build High-Speed Internet for All*, Bloomberg CityLab (Feb. 1, 2018); Tom Latek, *Lawmakers try to make sense of Kentucky broadband project*, KentuckyToday (March 26, 2018); *Kentucky seeking input on efforts to expand broadband*, Associated Press (June 28, 2021).

<sup>26</sup> 2019-270076588-17028393-9O.pdf (guidestar.org); About MBC | Mid-Atlantic Broadband (mbc-va.com); Our Story | High-Speed Broadband Technology Products | WA State Broadband Solutions (noanet.net); ViewReportFile (wa.gov).

<sup>27</sup> Connecting North Carolina - MCNC; mcnc\_case\_study\_report\_order\_number\_d10pd18645.pdf (doc.gov).

ancillary function.<sup>28</sup> The Illinois Century Network only began to offer wholesale access to commercial ISPs 14 years after its construction as a condition of receiving an investment of \$96 million in mostly public funds.<sup>29</sup> The Merit Network has a similar history.

A number of other states, including those cited in the recent Staff Proposal and Assigned Commissioner's Ruling,<sup>30</sup> are prioritizing funds for deployment of last-mile broadband services.<sup>31</sup> Likewise, the Commission should prioritize investment in last-mile broadband infrastructure as the most efficient means of serving end users.

## **VIII. OTHER ISSUES NOT COVERED**

### **Are there any issues the State of California should take into consideration as it develops the statewide middle mile network?**

There are numerous considerations for the state to consider as it develops the middle-mile network. At this juncture, however, Senate Bill 156 requires a focus on the identification of routes that should be included. The record in this proceeding along with the data responses regarding existing networks will give the Commission a basis for making its recommendation in the Staff Report.

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<sup>28</sup> ICN History - About ([illinois.gov](http://illinois.gov)); History – Merit; OARnet History | OARnet.

<sup>29</sup> See, Illinois Century Network, ICN History; Partnership for a Connected Illinois, Request for Proposals for the Illinois Century Network (2013).

<sup>30</sup> *Assigned Commissioner's Ruling*, Rulemaking (R.) 20-09-001, at 7 (Sept. 23, 2021).

<sup>31</sup> See, e.g., New York Association of Counties, *Universal Broadband: Deploying High-Speed Internet Access in NYS* (updated July 2017), available at: [BroadbandUpdateReport2017\(1\).pdf](http://BroadbandUpdateReport2017(1).pdf) ([nysac.org](http://nysac.org)); Kansas Department of Commerce, Broadband Acceleration Grant Program Guidelines FY 2021, available at [Broadband-Acceleration-Grant.pdf](http://Broadband-Acceleration-Grant.pdf) ([kansascommerce.gov](http://kansascommerce.gov)); Utah Broadband Center and Access Act, HB 348 (2021), available at: [HB0348 \(utah.gov\)](http://HB0348.utah.gov) (the Kansas and Utah programs permit funding of middle-mile elements that are necessary for a last-mile connection).

## **IX. CONCLUSION**

AT&T appreciates the Commission's efforts to develop a record regarding the appropriate locations of the state's middle-mile network. As the evidence shows, fiber networks in California already exist, and, accordingly, there are limited routes where the state's middle-mile network is needed. Those routes should be prioritized in the Staff Report according to the number of unserved households associated with each route.

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Respectfully submitted,

/s/

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