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.	Rulemaking 20-09-001 (Filed April 20, 2021)

COMMENTS OF THE CENTER FOR ACCESSIBLE TECHNOLOGY ON THE ASSIGNED COMMISSIONER'S RULING ON PHASE III ISSUES

Melissa W. Kasnitz, Legal Director
Paul Goodman, Legal Counsel
Center for Accessible Technology
3075 Adeline Street, Suite 220
Berkeley, CA 94703 Phone: (510) 841-3224
Fax: (510) 841-7936
E-mail: service@cforat.org

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I. INTRODUCTION

In accordance with the May 28, 2021 Assigned Administrative Law Judge's Ruling ("Phase III Ruling") and the August 20, 2021 Assigned Administrative Law Judge's Ruling Extending Comment Deadline, the Center for Accessible Technology ("CforAT") submits the following opening comments.

Many of the questions asked in the Assigned Commissioner's Ruling appear to be directed to broadband providers or other parties with access to substantially more information and/or technical expertise than is available to CforAT. For example, while Questions 1 and 3 both ask questions about affordability, a subject of great importance to CforAT, we interpret those questions to address the affordability of wholesale middle mile service, and CforAT does not have access to data that would allow us to respond to those questions. CforAT looks forward to reading the Opening Comments of other Parties to those, and other questions posed in the Ruling, and responding in reply comments. Accordingly, these Opening Comments will focus on the Commission's second set of questions ("Priority Areas") and questions about future potential expansion raised in the Commission's sixth set of questions.

II. DISCUSSION

Question 2: Priority Areas: Federal funding must be encumbered and spent in a limited time period. Additionally, unserved and underserved areas of the state are in substantial need of broadband infrastructure investment.

- **Is it reasonable to assume counties with a disproportionately high number of unserved households (e.g., 50% or more unserved at 100 Mbps download) are areas with insufficient middle-mile network access?**

The Commission should assume that counties with a disproportionately high number of unserved households are areas with insufficient middle-mile network access. CforAT does not have access to information to evaluate the extent to which such insufficiencies are based on lack of capacity as compared to lack of affordability.

As a threshold issue, California counties' percentage of unserved households are, with only two exceptions, either well over or well under the suggested fifty percent threshold.[1] In Alpine, Amador, Colusa, Mariposa, Modoc, Plumas, Shasta, Tehama, and Trinity Counties combined, **66.3 percent** of households are unserved by speeds of 100 Mbps or more. All but one of those counties are bordered entirely by counties with a percentage of unserved households that is also significantly higher than the state average of 5.1 percent.[2] All nine counties are geographically remote, and five of those counties (Modoc, Plumas, Shasta, Tehama, and Trinity) are contiguous and are located in the most northern and inland areas California.

Given those counties' geographic location and extremely high percentages of unconnected households, it is likely that providers have not made adequate (or any) meaningful investment in middle-mile infrastructure to serve these communities. What limited service is available is likely to be unaffordable, particularly because the more rural and isolated areas of the state also tend to have lower average household incomes.[3] The providers are, of course, welcome to disprove these assumptions. However, unless and until the providers do so, it is fair to assume that counties with a disproportionately high number of unserved households are areas with insufficient middle-mile network access due to lack of capacity and/or lack of affordability.

Because the split between counties with high levels of service and those with low levels of service does not tend to cluster around the 50% mark, the Commission may want to consider counties with more than 35 percent of households lacking 100 Mbps download speeds as having

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[1] The exceptions are Colusa County (58.8 percent unserved) and Tehama County (51.6 percent unserved).
[2] The one exception is Amador County, which is bordered by Calaveras County (25.9 percent unserved), El Dorado County (26.2 percent unserved), Sacramento County (3.7 percent unserved), and San Joaquin County (6.3 percent unserved).
[3] *See* American Community Survey, Geographic Comparison Tables, Median Household Income (In 2019 Inflation-Adjusted Dollars), available at https://www.census.gov/acs/www/data/data-tables-and-tools/geographic-comparison-tables/ (click on "Median Household Income (In 2019 Inflation-Adjusted Dollars" link) (last accessed September 3, 2021).

insufficient middle-mile access. This would allow for consideration of Glenn County (35.5 percent unconnected), Lassen County (39 percent unconnected), and Siskiyou County (38.3 percent unconnected), which are similarly geographically distant and located adjacent to at least two counties where more than fifty percent of households are unconnected.

- **What other indicators, if any, should the Commission use to identify priority statewide open-access middle-mile broadband network locations (i.e., built expeditiously, areas with no known middle-mile network access, regions underserved by middle-mile networks, regions without sufficient capacity to meet future middle-mile needs)?**

A. The Commission should use Historical Redlining Maps to Identify Priority Areas for Middle-Mile Deployment that will Serve Historically Redlined Neighborhoods.

In Phase II-B of this proceeding, the Commission asked parties to address questions about digital redlining, and in response, parties provided extensive proof that disparities in broadband deployment mirror, and are the direct result of, historical redlining practices.[4] As noted by CETF, "These particular studies [under review in Phase II-B] are not necessary to provide evidence of a serious issue ….The FCC's broadband maps, as flawed as they are due to overreporting of coverage by ISPs, demonstrate serious problems in broadband infrastructure in various areas: rural, remote, low-income, communities of color, and Tribal Nations."[5] As

[4] AARP Phase II Opening Comments at p. 6; Joint Advocates Phase II Opening Comments at p. 4; NDC Phase II Opening Comments at pp. 6-7; SBUA Phase II Opening Comments at p. 2; TURN Phase II Opening Comments at p. 8; UCAN Phase II Opening Comments at p. 4 ("As long as California relies on market forces to address this sobering situation, low-income communities and communities of color will lag significantly behind more affluent and Whiter communities in their adoption of high-speed internet access"); Cal Advocates Opening Comments at pp. 7-8; CWA Phase II Reply Comments at p. 1; TURN Phase II Reply Comments at pp. 8-9;

[5] CETF Phase II Opening Comments at pp. 5-6.

CforAT, EFF, and Public Knowledge noted in their Phase II Reply Comments, "Providers' sparse analysis is insufficient to rebut the ample factual evidence of digital redlining."[6]

As the Greenlining Report, one of the identified studies discussed in comments on Phase II-B notes, "[i]nternet service providers in California invest millions deploying next generation high-speed internet networks in wealthy neighborhoods while ignoring low-income communities of color. These patterns mirror the old patterns of redlining."[7] Given the evidence in the record linking historical redlining and digital redlining, and the nearly identical maps of historical redlining and Greenlining's heat maps of the digital divide,[8] historical redlining maps are reasonable identifier of underserved areas in areas with patchwork access to high-speed broadband. The Commission should assume that neighborhoods that were marked as class "C" and "D" on historical redlining maps are underserved or unserved, and should prioritize open access middle mile deployment that will serve those neighborhoods.[9]

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[6] Joint Advocates Phase II Opening Comments at p. 12.

[7] Vinhcent Le and Gissela Moya, *On the Wrong Side of the Digital Divide: Life Without Internet Access, And Why We Must Fix It In The Age Of Covid-19* (June 2020), available at https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide/ (last accessed June 23, 2021) (hereafter, "Greenlining Report").

[8] Greenlining Report; Joint Advocates Opening Comments at pp. 7, 9.

[9] As noted in Joint Advocates' Phase II Opening Comments, the Home Owners Loan Corporation's (HOLC) Research and Statistics Department 'drew upon its network of realtors, developers, lenders, and appraisers to create a neighborhood-by-neighborhood assessment of more than 200 cities in the country. These assessments included color-coded 'Security Maps' which ranked neighborhoods on an A-D scale:

- Grade A = 'homogeneous,' in demand during 'good times or bad.'
- Grade B = 'like a 1935 automobile-still good, but not what the people are buying today who can afford a new one.'
- Grade C = becoming obsolete, 'expiring restrictions or lack of them,' and 'infiltration of a lower grade population.'
- Grade D = 'those neighborhoods in which the things that are now taking place in the C neighborhoods have already happened.'"

As a result of redlining, households of color were relegated to "C" and "D" neighborhoods and were deprived of economic opportunity. Joint Advocates Phase II Opening Comments at pp. 18-20 (citations omitted).

B. The Commission should use the IOU's Pilot Project Proposals for Middle-Mile Deployment to Identify Priority Areas

In Phase II-A of this proceeding, the energy IOUs submitted pilot proposals meant to help determine "what role the IOUs can play in deploying broadband Internet access services to communities lacking access" to high-speed service.[10] CforAT has addressed the deficiencies of the IOUs' proposals in Opening Comments on those Pilot Proposals[11] and will not repeat those deficiencies here. However, the Pilot Proposals do provide some information which may help the Commission identify priority areas for middle mile deployment. For example, SCE's Pilot Proposal indicates that the Agua Caliente Tribe may not have a middle mile connection between the Agua Caliente tribal facility and a Tier 1 internet exchange point.[12] Similarly, SCE's Pilot Proposal indicates that there may not be sufficient middle mile infrastructure between Los Angeles and the City of Blythe, approximately 226 miles away. SDG&E's Pilot Proposal indicates a need for a need for approximately 15 miles of middle mile fiber to connect underserved Rincon Tribal Land.[13] SDG&E, in partnership with Cox Communications, has indicated that it intends to perform a feasibility study to identify other areas needing access to middle mile facilities.[14] PG&E's Pilot Proposal provided much less detail but stated that "PG&E identified three segments of fiber optic cable with available capacity that PG&E owns or

[10] Assigned Commissioner's Amended Scoping Memo and Ruling, issued on April 20, 2021, at pp. 5-6. The questions ask the IOUs to use their pilot proposals to assist in addressing the following issues: How to make IOU fiber infrastructure more available, including through changes to Commission rules or processes (Question 1); Whether opportunities are provided in conjunction with IOU infrastructure hardening efforts, including consideration of whether modifications to GO 95 addressing pole attachments would be needed (Question 2); Whether opportunities exist for IOUs to offer idle mile or last mile fiber, including any needed requirements or incentives (Question 3); and What requirements, if any, should IOUs be given when restoring facilities after a disaster (Question 4).
[11] CforAT Opening Comments on Pilot Proposals at pp. 1-2.
[12] SCE Pilot Proposal at p. 4.
[13] SDG&E Pilot Proposal at pp. 2-3.
[14] SDG&E Opening Comments at p. 3.

manages that traversed underserved areas,"[15] indicating a lack of middle-mile fiber in those areas.

As CforAT noted in Opening Comments on the Pilot Proposals, the IOUs "have not shown any inclination to advance consideration of how to effectively use existing facilities and planned infrastructure work to enhance broadband availability" and appear, at best, to be extremely reluctant to advance pilot proposals.[16] Given this reluctance, it may be necessary to move forward without the participation of the IOUs.[17] If so, the Commission may find that it would be appropriate to target unserved areas identified by the IOUs as priority areas for open access middle mile deployment.

Question 6: Network Route Capacity: The state will need to determine the amount of capacity to build into the network to meet existing and future demand.

- **Should the network also deploy additional conduit within each route for potential future expansion?**

Any open access middle mile network expansion facilitated by the Commission should deploy sufficient conduit within each route to allow for potential future expansion. The need for additional conduit is not only potential, but predictable, as average monthly data consumption has increased steadily over at least the past decade.[18] SB 156's support for the creation of an open access statewide middle mile network is an enormous undertaking, and it would be calamitous if that network did not provide sufficient capacity to meet future needs. CforAT looks forward to reviewing the comments of parties with specific technical expertise about this

[15] PG&E Pilot Proposal at p. 6.
[16] CforAT Opening Comments on Pilot Proposals at p. 6.
[17] CforAT Opening Comments on Pilot Proposals at p. 6.
[18] DecisionData.org, REPORT: The Average Household's Internet Data Usage Has Jumped 38x in 10 Years (April 17, 2020), *available at* https://decisiondata.org/news/report-the-average-households-internet-data-usage-has-jumped-38x-in-10-years/ (last accessed September 3, 2021).

issue and plans to respond in reply comments.

III. CONCLUSION

In previous phases of this proceeding, the Commission, the parties, and the stakeholders have devoted considerable time and resources to pursue pathways that will make a statewide, open access middle mile network a reality. The Commission should capitalize on those efforts, and use lessons learned from Phase II-A (IOU Pilot Proposals) and II-B (Digital Redlining), as well as information about communities that currently have low levels of high-speed connectivity to prioritize areas for open access middle mile deployment. Doing so will expedite the deployment of high-speed internet to communities that have been, for far too long, on the wrong side of the digital divide.

Respectfully submitted,
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/s/ Paul Goodman
Paul Goodman

Center for Accessible Technology
3075 Adeline Street, Suite 220
Berkeley, CA 94703
Phone: 510-841-3224
Fax: 510-841-7936
Email: service@cforat.org