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 October 12, 2020)

OPENING COMMENTS OF NEXT CENTURY CITIES TO ORDER INSTITUTING RULEMAKING 20-09-001

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I. Introduction

In accordance with Rule 6.2 of the California Public Utilities Commission ("Commission") Rules of Practice and Procedure ("Rules"), Next Century Cities ("NCC") submits comments to the Order Instituting Rulemaking 20-09-001 ("Rulemaking").

NCC is a 501(c)(3) nonprofit that works to expand broadband to every resident in every community. Our membership is made up of over 200 member municipalities, including 32 communities in California. The local leaders in our coalition are focused on developing solutions that connect their residents with high-quality, affordable broadband.

Across the country, communities use a variety of models to ensure that broadband access is widespread and equal. Particularly in the last several months, as the importance of home broadband access has only increased, local leaders have acted with flexibility and perseverance to connect residents that do not have the tools and resources to get online.

State governments can help build on these efforts by making funding available for a wide variety of uses, developing resources for community leaders, and elevating successful local solutions. With school, work, public services, and social gatherings swiftly transitioning online in the wake of the COVID-19 pandemic, it is imperative that state and local leaders collaborate on workable, long-term solutions that connect all residents with the connectivity they need to thrive.

Approximately 25% of Californians lack meaningful access to the internet at home, which equates to two million households that do not have equal access to remote learning platforms,

telework opportunities, health and wellness programs, and information.[1] The need is urgent and reaches every corner of the state. In the words of Tom Mullen, the Chief Data Officer in Riverside County:

> The pandemic has shined a bright light on the ongoing struggle in many communities to gain access to high-speed broadband services and break through the digital divide. Old processes and programs need to be streamlined and updated to speed up how we overcome the problems so many now recognize in urban, suburban, and rural regions of our state of accessing online learning, connecting with health providers, and working from home.

II. Infrastructure Deployment Models and Strategies

Communities that offer their own broadband networks do so through a variety of models, each with their own benefits. No single model works for every community. State and federal laws, funding opportunities, demographics, and competition among private service providers all factor into which model is best suited to a community's unique and often dynamic needs.

a. Dig Once

E.O. N-73-20's direction to "the California State Transportation Agency (CalSTA) and California Department of Transportation (Caltrans) to work with the California Transportation Commission (CTC) to identify and incorporate the installation of conduit and/or fiber into all appropriate and feasible transportation projects along strategic corridors" is an excellent reflection of efforts across the country to reduce environmental impact and financial costs while improving broadband connectivity. NCC members have specifically highlighted the importance

[1] *See generally* Tess Eyrich, *How to solve California's digital divide* (July 21, 2020), https://news.ucr.edu/articles/2020/07/21/how-solve-californias-digital-divide.

of utilizing transportation funding to offset street repair and restoration costs for fiber projects that would benefit everyone who indirectly pays for installation through increased rates. BroadbandNow estimates that nationwide dig once laws could save an estimated $126 billion in conduit installation costs.[2] Partnering with the California Department of Transportation is a strategic way to decrease installation costs while expanding access into areas that are unserved and improving the competitive landscape of areas with existing private providers.

b. Open-Access Middle Mile

Some municipalities, like Santa Monica, California, have invested in open access networks that have allowed providers to build out to residents, delivering affordable, high-quality broadband access.[3] By leasing network access to providers who ultimately light the fiber and manage the service, cities can raise revenue to repay their installation costs. Often, networks do not end at the initial installation and municipalities continue building out the infrastructure so providers can connect more residents. In this case, the municipality acts as a middle mile network because they do not directly compete with providers by offering their own FTTH service.

At the same time, such efforts have been faced with stark opposition from incumbent providers, who often enjoy a monopoly over broadband service, with most communities served by only one or two fixed wireline broadband providers.[4] Increased competition threatens

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[2] Tyler Cooper, *Dig Once: The Digital Divide Solution Congress Squandered And Policy That Could Save $126 Billion On Broadband Deployment*, BroadbandNow (Aug. 7, 2019), https://broadbandnow.com/report/dig-once-digital-divide/.

[3] Eric Lampland & Christopher Mitchell, Santa Monica City Net An Incremental Approach to Building a Fiber Optic Network, Institute for Local Self-Reliance (2014), https://www.ilsr.org/wp-content/uploads/2014/03/santa-monica-city-net-fiber-2014-2.pdf.

[4] *See* Christopher Mitchell & Kate Kienbaum, *Most Americans Have No Real Choice in Internet Providers*, Institute for Local Self-Reliance (Aug. 12, 2020), https://ilsr.org/report-most-americans-have-no-real-choice-in-internet-providers/.

monopoly power, but provides an essential check on broadband prices and quality, with most open-access networks offering gigabit speeds or higher at comparable prices to lower speeds in low-competition areas.

c. Anchor Institutions

Across the United States, anchor institutions provide the backbone of local broadband expansion efforts. Some community-owned networks, particularly those that have expansive smart city applications, connect anchor institutions, like parks and libraries, with municipally owned broadband networks. Their uses are wide in range. For some communities, anchor institutions have offered public wi-fi for years. While public wi-fi looks different in 2020, many communities have turned their signals outward, targeting public wi-fi to parks and parking lots. Other communities build out a municipal network to anchor institutions which becomes a middle-mile network for providers to build last-mile networks.

Regardless of the specific model for utilizing anchor institutions, CPUC can support community-based efforts by making funding available and ensuring that its uses are flexible enough to support a variety of applications. It is also important that the flexible use is accompanied by guidance that explains which uses are explicitly permitted to save local governments the risk of legal uncertainty. For example, the California Teleconnect Fund and the California Emerging Technology Fund are both exemplary ways to support anchor institutions at the state level. Expanding those opportunities can further support efforts to close the digital divide.

d. Flexible and Non-exclusive Funding Opportunities

Statewide municipal bonds targeted at broadband deployment are an important way for the state to support local infrastructure projects. A recent study shows that state funding can improve broadband availability by 1-2 percentage points.[5] Our California members have explicitly mentioned the importance of California Advanced Services Fund-sponsored municipal bonds to community-owned broadband networks. By expanding opportunities for funding to communities and ensuring that funding is offered in conjunction with other funding opportunities (such as grants for transportation and other infrastructure funds) can make conduit installation feasible for communities with limited resources.

To the greatest extent possible, funding opportunities available to communities should not only be flexible but also technology neutral. Each community has unique needs to connect residents with reliable, affordable, high-speed broadband and the technology and model that works best for one community may not work best for others. For instance, in hard to reach rural areas, microwave point-to-point may connect the most people at the most affordable price, while others may lack the wireline backhaul to deploy wireless solutions.

As the Commission sets limitations for spending government funds, it should acknowledge that broadband connectivity solutions vary based on landscape, population density, and device availability. At the same time, the state should provide clarity for what the flexible uses are so municipalities are not left with the legal risk of wondering whether funding is available for their intended use.

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[5] *See* Brian Whitacre and Roberto Gallardo, *State broadband policy: Impacts on availability* (2020), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7444981/.

Beyond funding for infrastructure projects, the Commission should designate funds for broadband adoption. For areas that already have networks, residents will surely be left behind because they do not have the digital literacy tools needed to use the internet to its fullest potential. As more and more services move exclusively online, the Commission should be mindful of local digital inclusion efforts to ensure that all Californians can use online services to their fullest potential.

e. Metrics and Mapping

Accurate and complete information about where broadband is currently deployed is a compulsory step in assessing need and targeting resources. It is well-known that data collected by the Federal Communications Commission (FCC) via Form 477 vastly overstates deployment, particularly on Tribal lands. While the FCC is currently updating its processes, it still currently proposes to rely on Form 477 data for the 2021 Broadband Deployment Report despite the widely known inaccuracies.

Additionally, while federal broadband mapping data is important, state efforts are equally as important to understanding which California residents are still waiting for digital opportunities. It will also help to identify opportunities to expand deployment with more precision. California's GIS Shapefile maps are a valuable tool for state and local policymakers but could be improved by increasing the benchmark upload and download speeds and including pricing information.

i. Speed

E.O. N-73-20 establishes a minimum download speed of 100 Mbps. At the same time, municipal leaders across the country have emphasized the importance of symmetrical speeds. Even as the pandemic loosens its grip, residents are being asked to use video conferencing and

other high-bandwidth applications in order to work, learn, and obtain medical care from home. Merely increasing the download speed to 100 Mbps does not address the new need for greater upload speeds. For households that include several people, upload speeds of 10 or 15 Mbps, which often accompany 100 Mbps download speeds, are simply not enough to allow everyone to participate in requisite activities at the same time.

ii. Pricing

Pricing data is essential to understanding how to make service more affordable, but the FCC has yet to include price information in its data collection process. The CPUC can and should include price information about offerings at each speed tier in its broadband mapping process so that consumers and policymakers have the information they need to make the best possible decisions.

Moreover, strategies to make broadband more affordable should include enabling community-owned networks through additional funding opportunities. That is an effective way that the state can support competitive pricing among providers. In 2018, Harvard found that when comparing 27 communities that owned fiber networks, in 23 cases the community-owned network offered lower prices than their private competitors when averaged over four years.[6] In combination with other cost-saving measures like dig once laws, community-owned broadband networks can drive prices down and improve service quality.

[6] David Talbot, Kira Hessekiel, & Danielle Kehl, *Community-Owned Fiber Networks: Value Leaders in America*, Harvard (2018) https://dash.harvard.edu/bitstream/handle/1/34623859/2018-01-16-Pricing.final.pdf?sequence=5&isAllowed=y.

III. Network Resilience Must Remain a Priority

As devastating wildfires have swept across California, the importance of resilient networks has become the center of attention for people across the state. Fires can bring down utility poles, damage fiber-optic cables and cut off power—the lifeblood of internet networks. This may leave wireless networks as the only viable alternative to many people who are cut off from their fixed broadband providers. However, dramatic increases in usage combined with vulnerable wireless infrastructure may not lead to the relief that many Californians need.[7] As the fires rage and show no signs of diminishing consumers look towards their service providers, both fixed and wireless, to provide them with meaningful connections to emergency notifications, and evacuation orders.

The CPUC has led the way in ensuring that providers in California are expanding their resiliency efforts the CPUC has entreated providers to make plans and reevaluate the use of public safety power shut offs ("PSPS") to minimize impacts of future PSPS events by increasing grid redundancy, segmentation, and equipment hardening.[8] The CPUC has adopted rules that require providers to create and submit emergency operations plans that outline how the provider will communicate with the public during an outage or disaster that has impacted their network.[9] Additionally the CPUC is requiring that providers in High Fire Threat Districts ensure there is at least a 72-hour backup power requirement to maintain a minimum level of service during a

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[7] Maddie Stone, *Wildfires Are Burning Up Cell Towers and Leaving Responders in the Dark*, Medium (Oct. 8, 2020), https://futurehuman.medium.com/wildfires-are-burning-up-cell-towers-and-leaving-responders-in-the-dark-e1238c2e8ad0.

[8] Press Release, California Public Utilities Commission, *CPUC Takes Action to Hold Communications Companies Accountable and Increase Public Safety* (Nov. 13, 2019) (available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M319/K815/319815205.PDF).

[9] Press Release, California Public Utilities Commission, *CPUC Requires Wireless Companies to Better Serve Customers in Emergencies* (July 16, 2020) (available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M343/K979/343979403.PDF).

disaster or outage.[10] Finally, the CPUC requires that providers file comprehensive Communications Resiliency Plans with the CPUC that detail their ability to maintain a minimum level of service and coverage during a disaster or power outage.[11] These plans are required to detail the steps providers have taken to ensure backup power is available for their networks, what steps they have taken to harden their networks, and the coordination efforts with emergency responders, other utilities, and the public.[12]

The CPUC's leadership in promoting the creation of plans and strategies to help keep people connected during emergencies is invaluable. Communities have a right to understand how the networks they rely on for information will fare during times of crisis. Increasing network resilience and provider transparency is critical for communities most likely to be affected by power outages, wildfires, and other natural disasters.

IV. Strategies to Support Specific Communities

The Commission can improve broadband opportunities in low-income, redlined, and Tribal communities by actively seeking input from community leaders and expanding the resources and tools available to meet community-based broadband solutions.

a. Broadband for Low-Income Communities

Federal and state Lifeline programs are essential for connecting people with low incomes. Yet, Lifeline is woefully underutilized. Many people who qualify for Lifeline do not enroll in the

[10] *Id.*
[11] *Id.*
[12] *Id.*

program. CPUC can help is by promoting awareness about the Lifeline program and providing enrollment opportunities in ways that reach people in need.

Often, information about Lifeline enrollment is shared online but, for many people who lack even basic internet access, learning about the program is not as simple as conducting a search or accessing a state website. The CPUC can help bridge this gap by meeting people where they are. While libraries and parking lots are tried and true examples of this work in practice, some of NCC's member municipalities have implemented creative public awareness campaigns, meeting with people in laundromats and partner government agencies to reach low-income families. There is an urgent need to go offline to help disconnected residents get online and stay connected.

When people consider whether broadband is affordable or not, they are faced with two crucial questions. The first is whether the underlying broadband service is affordable and available at their location. Because most people lack a meaningful choice among providers, most people are faced with a $60-70 bill for even the most basic broadband service, and generally charge more for service with download speeds of 100 Mbps. The second factor that people must take into account is whether the device critical to connecting online is affordable. If a person's only connection is a mobile or fixed wireless connection, the device must also be compatible with their service offering.

Local governments have played a significant role in both offering service to people who cannot afford it and expanding programs that offer used or loanable devices. The CPUC can support these efforts by providing funding and resources and seeking opportunities for inter-municipality collaborations.

b. Redlined Communities

Digital redlining is a major problem across the country, and California is no exception. The Greenlining Institute, for example, interviewed people living in Fresno and Oakland and found that the same areas that were redlined by banks are currently digitally redlined.[13] The problem is not new, but COVID-19 has raised the stakes.[14] As the need for reliable home internet has grown dire, the disparities caused by digital redlining are fragmenting communities and increasing racial and economic inequality, excluding people from everything from employment and education opportunities to relationship building with friends and family.

Structuring broadband funding programs around "unserved" and rural communities can exacerbate the inequality.[15] Instead, the CPUC should aim funds at countering the detrimental effects of digital redlining by recognizing the need and addressing it directly.

c. Tribal Broadband Strategies

Persistently, people living on Tribal lands remain the most disconnected out of everyone in the United States. While there are numerous reasons for this, there is one solution that outshines the others—policymakers must actively seek out opportunities to learn from Tribal leaders and listen to their needs.

Each Tribal government is unique and the CPUC should not expect to anticipate those needs on its own. California is home to more Native American people than any other state in the

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[13] *On the Wrong Side of the Digital Divide*, Greenlining Institute (June 2, 2020), https://greenlining.org/publications/online-resources/2020/on-the-wrong-side-of-the-digital-divide/.
[14] *See AT&T's Digital Divide in California*, Berkeley (April 24, 2017), https://belonging.berkeley.edu/atts-digital-divide-california.
[15] Angela Siefer & Bill Callahan, *Limiting Broadband Investment to "Rural Only" Discriminates Against Black Americans and other Communities of Color*, National Digital Inclusion Alliance (June 2020), https://www.digitalinclusion.org/digital-divide-and-systemic-racism/.

country.[16] There are over 100 federally recognized Tribes in California with over 300,000 Indigenous residents.[17] Tribal communities in California range in size from 5 members to 5,000 members and there are 100 reservations across the state.[18] The Commission must collaborate with Tribal governments and work together to develop long-term workable solutions that address the specific challenges that Indigenous communities face when connecting their residents. Specifically, the CPUC's Broadband Action Plan should include strategies for seeking input from Tribal leaders.

V. Conclusion

By supporting community-owned broadband solutions through flexible and numerous funding opportunities and targeting outreach to people who live in communities that historically struggle with connectivity, the Commission can improve broadband access and ensure that all Californians have the requisite tools to work, learn, access healthcare and banking services, and connect with friends and family.

NCC's participation in this proceeding will not prejudice any party and will not delay the schedule or broaden the scope of the issues in the proceeding. For the reasons stated above, NCC respectfully requests that the CPUC grant this Motion for Party Status filing.

Dated: October 12, 2020

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[16] *California Tribal Communities*, https://www.courts.ca.gov/3066.htm (last visited Oct. 12, 2020).
[17] *Id.*
[18] *Id.*

Respectfully submitted,

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