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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.

Rulemaking 20-09-001

(Filed 09/03/21)

**COMMENTS OF THE LOS ANGELES COUNTY ECONOMIC
DEVELOPMENT CORPORATION IN RESPONSE TO THE ASSIGNED
COMMISSIONER RULER SEEKING COMMENTS ON MIDDLE MILE
DEPLOYMENT**

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I. Introduction

In accordance with Rule 6.2 of the California Public Utilities Commission Rules of Practice and Procedure, the Los Angeles County Economic Development Corporation (LAEDC) respectfully submits these comments in response to Phase III of the Order Instituting Rulemaking 20-09-001 (to which LAEDC is a party) regarding implementation of SB156, concerning the implementation of a public, open-access middle-mile network.

The Los Angeles County Economic Development Corporation (LAEDC) was founded in 1981 as a nonprofit, public-benefit organization to harness the power of the private sector in collaboration with L.A. County government, to foster more robust economic development and create more widely shared prosperity across the county through objective

economic research, consensus-oriented strategic planning, direct program services and public policy development and advocacy.

Over the most recent decade, LAEDC has led two five-year comprehensive economic development strategic planning efforts for the County, each engaging more than 500 stakeholder organizations from business, labor, government, education and the communities of our region. Both times consensus has been reached that LA County needs 21st century infrastructure as a foundation for a 21st century economy, and that universal access to high-speed internet must be a foundation of that infrastructure if LA County is to achieve a truly equitable and inclusive economy for its ten million residents.

Given the unprecedented disruptions of the COVID-19 pandemic and the disproportionate impacts it had on people of color and low-income communities, including making it impossible for students to learn from home and people to work from home without high-speed internet access in the home, the LAEDC, along with UNITE-LA, formed the LA Digital Equity Action League (LA DEAL) to accelerate the Los Angeles County region's efforts to close the digital divide for good. Per CPUC Resolution T-17738, LA DEAL is the California Advanced Services Fund (CASF) Rural and Urban Regional Broadband Consortia grant recipient for the Los Angeles County region. As co-convener of the LA DEAL, LAEDC has been collecting data and community voice on the many barriers to universal adoption of broadband in the home. Hence, the LAEDC has become a party to Rulemaking 20-09-001 and respectfully submits these comments in response to the Assigned Commissioners Ruling, dated August 6, 2021, regarding middle mile network policy and to the questions therein.

II. General Response to Middle Mile Network

The LAEDC applauds the monumental passage of Senate Bill 156 and its directive to build a statewide open-access middle-mile broadband network. This law makes future-forward investments towards a transformative public infrastructure project that will reduce the costs for last-mile projects and incentivize providers to expand service to unserved and underserved communities across the state by substantially reducing their upfront infrastructure costs.

Los Angeles County is comprised of 88 cities and more than a hundred unincorporated communities spread across more than 4,000 square miles of urban, suburban and rural settings. The availability of high-speed internet varies widely across the county. As of early 2021, an extensive survey conducted by Professor Hernan Galperin at the USC Annenberg School for the California Emerging Technology Fund revealed that eleven percent of LA County residents, more than 1.1 million people, are unconnected to broadband and another eight percent, more than 800,000 additional residents, are connected only through a smartphone. This leaves nearly two million of our residents without the ability to study or work remotely from their homes. And in lower income communities of color the percentages of unconnected and under-connected residents are much higher, sometimes reaching as high as thirty percent or more. These stark realities are deeply troubling and serve to further divide our society and deny basic educational and employment opportunities to segments of our population based on their income levels or race and ethnicity.

California has a once in a generation opportunity to address and correct these unjustifiable disparities by investing the unprecedented sums of federal and state resources currently available, and likely to soon be available, to permanently close the digital divide

throughout the entire state. Regions and state residents should not be pitted against each other for this chance to achieve true digital equity. Rural, urban and suburban residents all need access to truly high-speed internet access now and in the future. And what may have been believed to be appropriate standards for high speed internet in recent years have been proven to be woefully insufficient for the needs of today much less tomorrow. Former internet speed standards of 6/1, 10/1 and even the current FCC standard of 25/3 Mbps are obsolete today, especially in the densely populated households of our low-income communities where multiple members of the same household need broadband access to work and learn from home or access telehealth or social services or basic information available to others only through the internet. The LAEDC strongly believes that a 100 Mbps download and 20 Mbps upload (100/20) standard should be the bare minimum for broadband today and will likely be insufficient in the future as demand for increasing bandwidth continues to grow unabated so a state-owned, affordable, open-access middle-mile network should be built with sufficient capacity and appropriate connections between local networks and the global internet to support last mile connections that will meet and exceed that standard at affordable rates for decades to come. Our economy and our society are becoming increasingly digital and true digital equity requires that all residents of California have equitable access to affordable broadband infrastructure and services just as they do to water and power.

To connect all of our unserved and underserved communities across California, it is vital that this middle mile network is truly open-access. Although many consider Los Angeles County to have existing infrastructure capacity, the lack of truly open-access middle-mile infrastructure prevents some providers from extending their services into certain areas of the region. This disparity is evident by the digital redlining within the County that has prevented

historically marginalized communities from receiving quality broadband service either at all or from more than one provider. An open-access middle-mile network that can be leveraged by different stakeholders will create more options by encouraging robust competition that offers high levels of broadband service, quality, and affordability driven by a competitive marketplace.

As California works to close the digital divide, the Rural and Urban Regional Broadband Consortia should also be leveraged to better understand regional priorities and the planning of the middle-mile network deployment. The research and program development that the Consortia across the state have completed over the past decade has given their members a strong understanding of their community needs and a network of aligned stakeholders in each region that are committed to Broadband for All in California.

III. Issues for Public Comment

In response to the State routes proposed for the statewide open-access middle-mile network, the LAEDC wishes to provide comments to assist in the deployment of the anchor build fiber highways. These comments are provided in response to the Commissioner's specific questions below.

1. Identifying Existing Middle Mile Infrastructure

What routes, if any, should be modified, removed from consideration, or revised? Provide an explanation for these suggestions.

To ensure that our most underserved communities can get connected, it is imperative that the proposed route does not disregard the CA-110 and US-101 corridors in Los Angeles County. These highway corridors serve large areas of under-connected households. The current iteration of the map does not include significant segments of these corridors, and if this

route is not revised to extend to these communities, a large of portion of our population, including in South LA, who are historically underserved digitally, economically and otherwise, will not be able to access the benefits of an open-access middle-mile network to help bring them affordable high-speed internet.

Are there existing middle mile routes that are open access, with sufficient capacity, and at affordable rates on the county highway routes listed in Attachment A?

We are not aware of any truly open-access middle-mile fiber networks within LA County, based upon the definition of open-access contained in SB 156 as “equal non-discriminatory access to eligible entities on a technology and competitively neutral basis, regardless of whether the entity is privately or publicly owned.” Some of our local governments have leased access to strands of fiber from private companies like American Dark Fiber to enable their own fiber networks such as the South Bay Fiber Network, but they do not own these fiber assets.

In the context of these comments, what is sufficient capacity and affordable rates?

The LAEDC believes that sufficient capacity requires a long-term, forward-looking view of the ever-rising demand for bandwidth from individuals, private enterprises and public institutions and should provide for all of them to have affordable access to truly high-speed internet for decades to come.

For routes that are identified as being open access, with sufficient capacity, and at affordable rates, how should the Commission verify these claims (e.g., should Communications Division

send a data request for service term sheets, rates, approximate dark fiber, lit fiber, and conduit capacity, etc.)? Are there any other criteria that should be used to verify these claims?

The CPUC should seek to use all of the proposed examples posed in the question above to verify any claims that any existing middle mile networks anywhere in the state are truly open-access and with sufficient capacity and affordable rates to meet the intent of the legislation and the needs of all unserved and underserved households in the state and should pursue all reasonable and legal avenues to verify such claims and data provided.

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?

It is reasonable to assume that counties with a disproportionately high number or a high percentage of unserved households are both areas with insufficient middle-mile network access. Percentages alone may not be accurate reflections of the sufficiency of such networks especially when a high percentage of a very low-population area of the state is compared with a relatively low percentage of a very highly populated area like LA County. While LA County may appear to have a low percentage of unserved households based on the limited data available to the CPUC from providers, even at those modest percentages the number of unserved households in LA County is far larger than any other county in the state and totals more than nine percent of all the unserved households in the entire state as identified by CPUC staff in the

chart entitled Anchor Build Fiber Highways and Broadband Served Status by County attached to the Assigned Commissioner's Ruling dated August 6, 2021.

It is critically important to note that American Community Survey datasets reveal that 416,636 households in LA County (12.6% of all LA County households) have no internet connection, much closer to the findings of the 2021 survey by Professor Hernan Galperin at USC Annenberg for CETF that revealed 11% of all LA County households lacked a broadband connection. These shockingly high numbers of California households lacking access to remote learning and work, telehealth and other essential services enabled by broadband infrastructure in just one county indicates a market failure and should be used to inform CPUC policy as to middle mile network deployment.

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)?

If the goal is to rapidly increase the number of unserved and underserved California households that can be affordably connected to the internet at speeds at or above 100/20 Mbps then the commission should consider the fact that affordable, open-access middle-mile networks deployed in a dense urban area like Los Angeles County are likely to be able to connect far more households per dollar invested in the middle mile network deployment given the very high numbers of people who live along the present planned routes for the network in LA County and the corridors currently left off the route map including the 110 freeway from Downtown LA south to the Port of Los Angeles and along 101 freeway from Downtown LA

north to the San Fernando Valley and along its continuation as the 170 freeway north to the 5 freeway.

What are existing providers paying or charging for middle mile services?

We have not as yet been able to confirm these rates but if we are able to prior to the deadline for Reply Comments we will submit this information at that time.

Are there other factors or sources of information the Commission should consider for determining whether these services are affordable?

Factors that should be considered in determining affordability include household median income, adjusted cost of living, and poverty rates. To better understand these factors, it is important for communities' voices to be heard to determine what is deemed "affordable".

Although there are several low-income internet plans offered by providers in Los Angeles County, our conversations with Community-based partners have revealed that many residents are still unable to afford the price points or are hesitant to accept the offers based on the terms and conditions associated with them.

Is it reasonable for the costs of these services to change depending on the location where the service is provided (i.e., rural vs urban)?

In certain cases, yes, particularly in rural areas where a limited number of households may exist along a lengthy middle-mile corridor necessitating higher access costs to support the investment to reach such households.

Leasing Existing Infrastructure: Indefeasible Rights of Use (IRUs) are long term leases (generally 20 to 30 years) for unrestricted, legal capacity on a communications network for

a specified period of time. These contracts generally obligate the purchaser to pay a portion of the operating costs, and the costs of maintaining the infrastructure.

If there is existing open access communications infrastructure with sufficient capacity to meet the state's needs, should the state purchase IRUs from that network?

Ideally no, as such a lease would expend capital for a solution with a far more limited term than if the state were to build a more permanent solution of its own. Additionally, the state would miss the opportunity to build more redundancy and resiliency throughout the state by building a parallel and separate path.

Is there any value in the state purchasing an IRU from the network if capacity is already available?

The construction of an independent open-access middle-mile network will help improve competition which will expand internet offerings and help drive down the cost.

3. Interconnection: The statewide network will need to connect with other networks in order to deliver services.

At what points should the statewide network interconnect (e.g., to other networks, servers, etc.)?

The statewide network should interconnect at strategic locations that will help bridge regions across the infrastructure grid and expand broadband access to all cities and unincorporated communities including at municipal anchor facilities, neutral data centers, and educational institutions.

Are additional exchange points necessary or strategic, and if so, where?

Additional exchange points will be necessary to ensure that the middle-mile network is flexible in its capacity and can continue to be improved and adapted to resident and commercial needs. The capability to link additional nodes will allow the network to be extended and improved in the future. The State's middle-mile network should also providing exchange points to facilitate connections with existing or future municipal broadband networks to help drive local governments' costs down, enable innovative future services and increase competition in underserved communities.

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

How many strands of fiber should the network deploy for each route?

Lack of access to sufficient data from existing ISP's prevents LAEDC from recommending a specific number of strands to be deployed at this time but LAEDC strongly recommends that the network be built to deploy far more strands of fiber than present demand would indicate are necessary today as demand continues to increase year over year and shows no signs of abating and the incremental costs of adding additional fiber strands during construction are modest relative to the overall costs per mile of constructing the network.

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

Deploying additional conduits is strongly recommended to allow future expansion of the middle-mile network. Having the capacity to extend new connections from this core network will ensure that broadband access will be accessible and affordable for more communities.

Should these factors change based on the population density and distance from the core network?

It is important that planning take into consideration where further development might take place to ensure that emerging localities will have the existing broadband infrastructure to support future residents and commercial growth. If population migration is not taken into consideration, many new communities may go unserved or underserved as California's geographical demographics continue to evolve.

V. Closing

The LAEDC commends the efforts of the CPUC, Commissioner Guzman Aceves and Administrative Law Judge Glegola to close the Digital Divide across California and we respectfully request consideration of the above comments.

Dated: September 3, 2021

Respectfully submitted,

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