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OVERSIGHT HEARING

State Broadband Investments: Progress Towards Connecting the Unserved

1020 O Street, Room 1200
Tuesday, March 7, 2023
9:00 a.m.

BACKGROUND

While broadband access rates have steadily risen, service gaps persist. Data from the 2021 U.S. Census Bureau American Community Survey shows that 87 percent of California households have broadband access; however, census data also indicates that 20 percent of all Californians lack a home internet subscription and more than 20 percent of lower income households have no broadband of any type. Households may lack broadband for a variety of reasons. Some households are located in areas that lack sufficient infrastructure to provide broadband services, and other households may find internet service plans unaffordable. Some communities have historically lacked broadband service; however, the Covid-19 pandemic highlighted the extent to which broadband service gaps limit Californians' ability to access essential services and fully participate in the economy.

In 2021, the Legislature passed a historic package of broadband legislation, including SB 156 (Committee on Budget and Fiscal Review, Chapter 112, Statute of 2021), which established a framework for constructing state-owned middle mile broadband infrastructure overseen by the California Department of Technology (CDT) and allocated \$2 billion to the California Public Utilities Commission (CPUC) for last mile broadband funding opportunities. Since the passage of this legislation, the CPUC and CDT have taken several steps towards implementing SB 156 and related legislation to expand broadband access. However, a substantial amount of broadband infrastructure

funding remains unspent. Additionally, the Governor's proposed 2023-24 Budget would defer the majority of last mile broadband funding provided in the 2021 Budget Act, and initial maps identifying areas targeted for infrastructure grants indicate that a large number of underserved urban communities may face greater challenges obtaining future broadband infrastructure grants. This oversight hearing is intended to examine the state's progress towards implementing the 2021 broadband investments, explore challenges to connecting unserved Californians, and identify opportunities for ongoing state broadband investments to equitably address connectivity challenges.

OVERVIEW OF RECENT LEGISLATIVE BROADBAND INVESTMENTS

Budget legislation created a path for using federal stimulus money for broadband. In March 2021, President Biden signed the American Rescue Plan Act (ARPA) to provide Covid-19 pandemic economic stimulus funding. ARPA provided states with substantial federal funding for infrastructure projects, including broadband infrastructure deployment. As part of the 2021 Budget Act, the Legislature approved historic investments in broadband infrastructure. The 2021 Budget appropriated \$6 billion in ARPA and General Fund monies to support the deployment of new broadband infrastructure to unserved and underserved communities. The Legislature subsequently passed SB 156, which established a framework for implementing the broadband spending and allocated the monies for the following purposes:

- \$3.25 billion appropriated to the CDT to oversee the creation of a state-owned middle mile broadband network.
- \$2 billion for the CPUC to fund last mile broadband infrastructure in rural and urban unserved and underserved communities.
- \$750 million for the creation of a loan-loss fund at the CPUC to enable local governments and non-profits in financing broadband service projects.

While ARPA funding provided California with new resources to address broadband infrastructure needs, federal rules set strict deadlines for the use of these monies. Under federal requirements, ARPA monies must be encumbered by December 31, 2024, and spent by expended by December 31, 2026. According to information provided by the Legislative Analyst's Office (LAO), more than 80 percent (\$2.363 billion) of the remaining ARPA monies appropriated to broadband infrastructure are allocated to the construction of the state-owned middle mile network overseen by CDT. The remaining amount of ARPA monies provided for broadband (\$550 million) is for last mile grants administered by the CPUC.

Additional Legislative Actions to Address Broadband Needs. In addition to SB 156, the Legislature passed several measures between 2020 and 2022 aimed bridging broadband access gaps. These measures include, but are not limited to, the following bills:

- SB 4 (Gonzalez, Chapter 671, Statutes of 2021) and AB 14 (Aguilar-Curry, Chapter 658, Statutes of 2021) updated and extended the California Advanced Services Fund (CASF) by increasing speed standards for CASF broadband projects, expanding eligibility for last mile broadband grants, and extending CASF's operation and funding until 2032.
- SB 28 (Caballero, Chapter 673, Statutes of 2021) required the CPUC to collect granular data from cable franchises on the actual locations they serve and adopt customer service requirements for cable franchises.
- AB 2256 (Quirk-Silva, Chapter 779, Statutes of 2022) expanded the membership of the Middle Mile Broadband Initiative Oversight Committee to include two representatives from local governments.
- AB 2752 (Wood, Chapter 801, Statutes of 2022) CPUC broadband mapping data collection requirements to ensure reporting of actual locations served by broadband providers.

CPUC actions to implement broadband legislation. As part of two rulemakings (R. 20-08-021 and R.20-09-001), the CPUC adopted the following decisions to implement recently enacted broadband legislation.

- Decision 22-02-026 adopted rules to implement the local agency technical assistance (LATA) grant program.
- Decision 22-04-055 adopted rules for the Federal Funding Account.
- Decision 22-05-029 updated program rules and provided funding allocations for subaccounts within the CASF, including the Broadband Public Housing Account, Broadband Adoption Account, and the Regional Broadband Consortia Account.
- Decision 22-11-023 adopted rules for the CASF broadband infrastructure grant account.

STATE-OWNED MIDDLE MILE IMPLEMENTATION

Middle Mile vs. Last Mile. Last mile broadband networks carry data to consumers' homes and businesses. Middle mile broadband infrastructure connects these last mile networks by carrying larger amounts of data over longer distances. Networks with insufficient middle mile infrastructure and low levels of fiber in the last mile may not be able to deliver higher internet speeds that consumers use for functions like streaming video and interactive applications, such as telehealth applications. The absence of sufficient middle mile infrastructure in a community may discourage new last mile internet service providers (ISPs) from serving the community because insufficient middle mile limits service offerings and costs to lease access to or construct privately-owned middle mile may be prohibitive for certain ISPs.

Status of the Middle Mile: Everything, Everywhere, All at Once? To help CDT meet short ARPA encumbrance and expenditure deadlines, SB 156 provided CDT with streamlined contracting abilities and a limited exemption to the California Environmental Quality Act (CEQA) for middle mile broadband deployment in state-owned rights-of-way. In addition to establishing CDT's duties to oversee the construction of the state owned middle mile broadband network, SB 156 also tasked the CPUC with identifying unserved and underserved communities prioritized for middle mile construction projects.

While the CPUC provided CDT with a map of these projects in fall 2021, CDT subsequently developed its own list of 18 initial projects (identified in the table below).

Project	Approved
1 – Siskiyou area	47.9 miles of fiber construction routes
2 – Plumas area	132.3 miles of fiber construction routes
3 – Lake area	107.8 miles of fiber construction routes
4 – Colusa area	23.1 miles of fiber construction routes
5 – Alpine area	176.9 miles of fiber construction routes
6 – Amador area	42.0 miles of fiber construction routes
7 – Calaveras area	11.0 miles of fiber construction routes
8 – Oakland area	24.1 miles of fiber construction routes
9 – Central Coast	48.4 miles of fiber construction routes
10 – West Fresno	83.2 miles of fiber construction routes
11 – Inyo Area	214.4 miles of fiber construction routes
12 – Kern area	97.3 miles of fiber construction routes
13 – San Luis Obispo	132.9 miles of fiber construction routes
14 – San Bernadino	47.6 miles of fiber construction routes
17 – Coachella Valley	20.5 miles of fiber construction routes
18 – Riverside / San Diego area	227.8 miles of fiber construction routes
Total	1,437.2 miles of fiber construction

Source: March 3, 2022, CDT Preliminary Approval of Middle Mile Projects

Since identifying these initial 18 projects in March 2022, CDT has expanded the scope of the Middle Mile Broadband Initiative to encompass 10,000 miles. CDT is in the process of soliciting bids for a number of contracts related to the middle mile, including leases and joint construction contracts; however, the scope of the middle mile remains unclear. Additionally, the initial 18 projects proposed by CDT no longer appear to be prioritized. On February 21, 2023, CDT announced its first joint construction contract for a portion of the middle mile. This first joint build project is intended to construct middle mile infrastructure between Los Angeles and Needles, California. While this project represents progress in deploying middle mile infrastructure, the proposed route for this project is not included in the list of initial 18 prioritized projects.

It remains unclear if sufficient funding exists to build or gain access to the proposed 10,000 miles of infrastructure. It is also uncertain where and when middle mile will be available either through construction of state-owned facilities or through leases of third-party infrastructure. Without greater clarity on where and when construction of new middle mile facilities will occur, it is not clear how last mile providers will be able to plan last local networks to interconnect with the middle mile. Additionally, lack of clarity regarding the location and timing of construction for segments of the middle mile may limit the degree to which local governments can plan permitting for these mile projects at the local level. To the extent that local networks intend to rely on the state-owned middle mile for broadband service, the lack of clarity around the scope and timing of construction and leases may delay last mile projects.

LAST MILE BROADBAND FUNDING IMPLEMENTATION

Status of last mile infrastructure investments: hurry up and wait. In addition to establishing a framework for funding state-owned middle mile broadband infrastructure, SB 156 also created the Federal Funding Account at the CPUC to fund last mile broadband infrastructure projects. SB 156 requires the CPUC to allocate this \$2 billion in last mile funding to rural and urban counties to ensure a geographically diverse selection of projects. The following table outlines these rural and urban allocations.

Urban Counties	Rural Counties
\$1 billion total	\$1 billion total
\$5 million initial allocation for each county	\$5 million initial allocation for each county
Balance of \$1 billion to be allocated to each county based on its proportionate share of households unserved by broadband at speeds of 100/20 Mbps.	Balance of \$1 billion to be allocated to each county based on its proportionate share of households unserved by broadband at speeds of 100/20 Mbps.

To maximize the use of federal funds, SB 156 provides the CPUC with the flexibility to re-allocate any Federal Funding Account monies that remain unspent as of June 30, 2023, without regard to the rural and urban allocation formula.

The CPUC has adopted several decisions to implement SB 156 through its broadband deployment rulemaking (R. 20-09-001). In April 2022, the CPUC adopted a decision (D. 22-04-055) establishing rules for Federal Funding Account; however, the CPUC has not yet started accepting applications for these infrastructure grants. The CPUC has stated that it does not expect to approve Federal Funding Account grants before June 30, 2023. Consequently, none of the Federal Funding Account grants will be made before the statutory rural and urban allocation requirement expires. The CPUC has indicated that since these existing rural and urban county allocations were adopted in CPUC decisions establishing the funding rules, these allocations will remain beyond June 30, 2023. However, nothing in statute expressly requires the CPUC to allocate Federal Funding Account monies to geographically diverse projects after June 30, 2023.

There is high demand for local broadband planning grants. While the CPUC has not issued broadband infrastructure grants from the Federal Funding Account, the CPUC has focused on awarding LATA funding. SB 156 provided the CPUC with \$50 million to fund local and tribal governments’ broadband planning activities. Below is the status of LATA applications as of January 26, 2023:

Applications Received	Applications Awarded	Total Funding Requested	Total Funding Awarded
116	81	\$52,458,536	\$36,354,525
Total LATA Funding		\$50,000,000	\$50,000,000
Balance		-\$2,458,536	\$13,645,475

Source: CPUC Local Agency Technical Assistance – Grant Applications Received as of Jan. 26, 2023

Information from the CPUC shows that the CPUC has received more LATA funding than the total \$50 million allocated to the LATA program. The demand for LATA funding may also be a factor in CPUC decisions to limit grants to certain local government entities. The CPUC has declined to approve grants from several large metropolitan planning organizations (MPOs), including the Southern California Associations of Governments and the Santa Barbara County Association of Governments. The CPUC declined these grants due to a strict interpretation of “local agencies” that excludes MPOs. The CPUC also declined these applications to prevent counties with MPOs from potentially receiving planning grants at the county level and the overlapping MPO level.

Proposed budget funding deferrals could further delay funds for last mile projects. The last mile infrastructure monies overseen by the CPUC pursuant to SB 156 are comprised of both federal ARPA funds and General Fund dollars. In response to slower projected economic growth for the next fiscal year, the Governor’s proposed 2023-24 Budget recommends a number of funding reductions and deferrals. These proposals include deferring more than \$1.1 billion in General Funds administered by the CPUC for last mile broadband projects. To the extent that the state lacks sufficient General Fund to backfill these deferrals in future fiscal years, these deferrals may delay or reduce state investments in last mile broadband infrastructure.

BROADBAND MAPPING AND FUTURE FUNDING OPPORTUNITIES

Broadband mapping hampered by delays, omissions, and errors. Mapping broadband access is necessary to identify and target funds to unserved and underserved communities. Currently, the CPUC is the only state agency empowered to collect data from broadband providers to support these maps. However, the CPUC’s efforts to produce maps to help target broadband funds have been fraught with delayed access to data, data omissions, errors, and concerns about the extent to which the maps address digital equity needs.

In January 2023, the CPUC released initial maps identifying priority areas for the Federal Funding Account grants. While much of the Los Angeles Basin is excluded from the map of prioritized areas, many commercial, high-income, and already served facilities are marked as prioritized areas on the map. For example, John Wayne Airport, Pepperdine University, and the Montecito Valley Club are all marked as priority areas; however, communities with higher rates of low-income residential households such as Watts, Chinatown, and Pico-Union are not included in any priority areas. Within the City of San Diego and the surrounding towns, the only priority area is the San Diego International Airport. Many of the priority areas appear in rural parts of the state, but a substantial amount of these priority areas are also marked as locations with no residential population.

The lack of prioritization for lower income communities, particularly non-white lower-income communities, may be the result of criteria used to identify unserved communities where broadband investments would generate higher broadband service adoption. The CPUC contracted with CostQuest Associates to analyze data and develop the broadband map priority areas. CostQuest’s analysis includes a prioritization of areas based on the business case for investing in those areas. CostQuest’s analysis states:

To determine how to allocate the funds, we must look at several factors. From an Internet Service Provider's perspective, these factors include where costs are preventing deployment, likely subscription rates, and potential return on investments. To accomplish this, CostQuest performed a 10-year business case for each census block. The census block level results were aggregated through a clustering process where the results determine funding areas and potential funding needed. The result of this analysis breaks up the eligible areas into priority areas that blend low cost and high-cost eligible areas with served areas to produce logical geographic areas that may be used as funding areas.

CostQuest's analysis incorporates likely subscription rates for census blocks to create priority areas where broadband adoption rates support the business case for broadband investments. Historically, broadband adoption rates closely track with income, and communities with higher average incomes generally experience higher broadband adoption rates. To the extent that CostQuest relied on historical adoption data to estimate subscription rates, historically economically disadvantaged areas may be excluded from priority areas.

The long, slow battle for broadband data. As part of its duties to implement legislation to map broadband access in the state, the CPUC submitted data requests to broadband providers starting in March 2022. Between June and October 2022, broadband providers disputed the extent to which these requests violated data privacy limitations. In October 2022, the CPUC followed its data requests with administrative subpoenas to obtain the outstanding broadband data information. Despite the passage of multiple bills aimed at improving access to broadband data, the CPUC's maps identifying unserved and underserved communities remain incomplete.

Future digital equity investments may rely on resolving broadband mapping concerns. In November 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA), which included \$42 billion in broadband infrastructure funding. The National Telecommunications and Information Administration (NTIA) will allocate this \$42 billion to states through its Broadband Equity, Access and Deployment (BEAD) Program. Each state's BEAD funding will be based on that state's share of unserved households included in Federal Communications Commission (FCC) broadband maps. Under FCC rules, each state must designate a lead agency for broadband mapping and data verification. In May 2022, Governor Newsom designated the CPUC as the lead agency for broadband mapping and data verification in California. In addition to helping the state target existing funds to broadband projects, the CPUC's broadband maps are intended to help identify investment opportunities as California receives additional federal monies.

Good News: we still have opportunities to address equity concerns. While the CPUC has acknowledged that its existing broadband prioritization maps are incomplete, critiques of the maps have also provided additional policy suggestions to ensure that digital equity needs are given greater weight in funding priorities. Various stakeholders, including The Utility Reform Network (TURN) and the Public Advocate's Office (PAO), have crafted recommendations and maps to demonstrate how using alternative criteria can better support investments in lower-income communities. Both TURN, PAO, and several other organizations have recommended that the CPUC adjust the priority areas map using existing state data regarding disadvantaged communities to better target funds to unserved communities with a higher proportion of low-income households. Reliance on ARPA funding for last mile investments may necessitate balancing the need for these additional policy changes against the looming deadlines to spend ARPA monies. To the extent that recommended solutions do not require substantially more time to adjust funding eligibility and prioritization, the CPUC may modify the broadband priority maps without jeopardizing federal funds.