

State of California Five-Year Action Plan Broadband Equity, Access, and Deployment (BEAD) Program

Final Initial Draft | July 13, 2023



California Public Utilities Commission

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1. Executive summary

The California Public Utilities Commission (CPUC), the Eligible Entity for the State of California, is pleased to present this Broadband Equity, Access, and Deployment (BEAD) Program Five-Year Action Plan, which comprises a needs assessment (including the needs of covered populations and underrepresented communities) and establishes California's goal of ensuring universal broadband service availability for all residents, businesses, and institutions.

This Plan is aligned and coordinated with the CPUC's ongoing efforts to achieve broadband equity in the State. The CPUC is also fully coordinating its BEAD activities with the California Department of Technology (CDT), which is the State of California's designated entity for the Digital Equity elements of the Infrastructure Investment and Jobs Act.

This Plan follows NTIA's template and meets all requirements established in the BEAD Notice of Funding Opportunity (NOFO).

1.1 Vision

This Five-Year Action Plan establishes California's broadband goals and priorities for the BEAD program—and presents a needs assessment that will inform the State's Initial Proposal.

This Plan aligns with California's Broadband for All¹ initiative, which reflects Governor Gavin Newsom's significant commitment to close the digital divide in California. This is exemplified in the Broadband for All Action Plan,² prepared in response to Executive Order N-73-20,³ and in the once-in-a-lifetime investments authorized under Senate Bill 156 (Chapter 112, Statutes of 2021)⁴ which committed \$6 billion toward development of a statewide open-access middle-mile network and grants for last-mile infrastructure and technical assistance.

Under the banner of Broadband for All—California's commitment to closing the digital divide—the CPUC seeks to realize a vision where all Californians have access to affordable, high-performing broadband service at home, schools, libraries, and businesses.

¹ "California Broadband for All," <u>https://broadbandforall.cdt.ca.gov/</u>.

² "California Broadband for All Action Plan," California Broadband Council, 2020, <u>https://broadbandcouncil.ca.gov/wp-content/uploads/sites/68/2020/12/BB4All-Action-Plan-Final.pdf</u>.

³ "Executive Order N-73-20," State of California, August 14, 2020, <u>https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf</u>.

⁴ "Senate Bill 156," <u>https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB156</u>.

1.2 Current state of broadband and digital inclusion

Broadband access is available throughout most of the State (see Section 3.3.1), including through wired infrastructure, public Wi-Fi, and cellular connectivity. The CPUC contracted with CostQuest Associates (CostQuest) to estimate the number of unserved addresses and the investment required to bring broadband to areas in California lacking service using the Federal Funding Account program eligibility requirements adopted in CPUC Decision 22-04-055.

By analyzing data on service availability using California's definition for unserved, CostQuest determined there are 996,302 unserved and underserved locations lacking access to broadband speeds of at least 100 Megabits per second (Mbps) downstream and 20 Mbps upstream through a reliable wireline connection, defined as fiber-to-the-premises or using DOCSIS 3.0 or greater technology.⁵ Analysis indicates that many of the remaining unserved and underserved locations throughout the State are some of the most difficult and expensive to serve.

The CPUC has been administering broadband grant programs for more than a decade (see Section 3.1) and is well positioned to leverage the lessons from this work into the administration of its planned BEAD-funded grant program to seek to fill these gaps.

1.3 Obstacles or barriers

The CPUC has identified potential obstacles or barriers that it will seek to mitigate as it implements this Plan and the aligned goals of the California Broadband for All Action Plan. As discussed in Section 4, these include:

Funding availability: The CPUC estimates it has approximately \$4 billion in funding available (including NTIA's BEAD allocation and funds allocated by the State Legislature); while significant, this amount will not enable deployment of broadband infrastructure to all unserved locations in the State (see Section 5.6). The CPUC also will not have enough funding to address the needs of underserved locations or community anchor institutions (CAI) that lack 1 gigabit service.

Timeline: Given California's large size, it may be a challenge for some of the CPUC's BEADfunded subgrantees to deploy broadband infrastructure within the required timeline.

Capacity to deploy broadband: Given the scope of infrastructure buildout contemplated by this Plan, the CPUC recognizes that developing sufficient capacity may be a challenge for some potential subgrantees, including small ISPs and localities and other entities.

⁵ "California Broadband Investment Model – Last Mile Funding Analysis: Process Overview and Methods," CostQuest Associates, April 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-</u> <u>division/documents/broadband-implementation-for-california/ffa-webpages/ca-broadband-investment-</u>

model_04212023.pdf. CostQuest notes that it also excluded locations from the unserved total where infrastructure projects are funded by CASF and where projects are presumed to be funded by the federal Rural Digital Opportunities Fund.

Permitting: Given the size of the State and the multiple permitting entities form which grantees will need to gain approval, permitting for infrastructure projects will represent a major challenge.

1.4 Implementation plan

This Plan presents the CPUC's estimated costs, timeline, and strategies for its BEAD-funded grant program and work toward achieving universal service in alignment with the California Broadband for All Plan—along with strategies related to remedying inequities in digital inclusion (see Section 5).

1.4.1 Stakeholder engagement process

The CPUC has implemented extensive processes to identify stakeholders and stakeholder groups, conduct inclusive engagement with a broad range of communities, and facilitate engagement with stakeholders across the State. The CPUC intends to continue its stakeholder engagement and outreach efforts around broadband deployment and digital equity in the State—particularly to engage with covered populations and stakeholders that historically may not have had as much representation in public planning processes.

As part of the preparation process for the Five-Year Action Plan and the BEAD program more generally, the CPUC partnered with CDT to jointly conduct 17 Broadband for All, Digital Equity, and BEAD Planning Regional-Local Workshops in communities across California. These events were attended by more than 2,000 community members, local officials, and interested parties, and provided a forum for attendees to learn about planning for their communities, accessing programs to create digital equity, submitting feedback on how the State's efforts to close the digital divide could be improved or made more inclusive, and connecting with members of their communities who are passionate about digital equity in California.

1.4.1.1 TRIBAL CONSULTATION

In addition to the 17 Regional-Local Workshops, the CPUC and CDT conducted three in-person Broadband for All, Digital Equity, and BEAD Regional Tribal Consultations with representatives of Tribes in Northern, Central, and Southern California, as well as an additional virtual consultation. The CPUC is also conducting government-to-government consultations with 20 individual Tribes that requested individual consultations to further discuss the BEAD program and the individual Tribe's specific circumstances.

1.4.1.2 CPUC COORDINATION WITH CDT

The CPUC has also participated extensively in the process of crafting the State Digital Equity Plan, led by CDT, including participating in the quarterly Statewide Planning Group, attending meetings of the Outcome Area Working Groups, and engaging with CDT to support solicitation of input for the State Digital Equity Survey and Digital Equity Ecosystem Mapping (DEEM) Tool.

1.4.2 Priorities

The State's priority for broadband deployment is to serve all unserved locations—which aligns with the principal focus of the BEAD Program.⁶ Upon the approval of the State's Initial Proposal, which will be delivered to NTIA by no later than December 27, 2023, the CPUC may award sub-grants competitively to subgrantees to carry out the following broadband deployment activities, consistent with the BEAD NOFO: 1) unserved service projects; 2) underserved service projects; 3) projects connecting eligible community anchor institutions; 4) broadband data collection, mapping, and planning; 5) installing internet and Wi-Fi infrastructure or providing reduced-cost broadband within a multi-family residential building; 6) broadband adoption programs; and 7) other activities determined by NTIA.⁷

While the BEAD NOFO provides clear guidance on federal rules and minimum standards for the program, it also provides for State discretion on additional requirements and priorities. Under its own rules, the CPUC is required to gather public input in an open public proceeding to design and craft these additional requirements and determine how the BEAD funds will be offered to qualified subgrantees.

On February 23, 2023, the CPUC opened a rulemaking proceeding⁸ to gather input on potential additional requirements, guidelines, and priorities. The proceeding remains open and the Commission has yet to publish potential draft rules as of the writing of this Plan.

Digital equity priorities are being developed through a parallel effort conducted by CDT.

1.4.3 Estimated timeline and cost for universal service

CostQuest used a series of forward-looking cost models to estimate the investment required to deploy a fiber-to-the-premises network to all unserved locations. Based on the modeling, an estimated \$9.78 billion investment will be needed for new fiber and equipment to serve all unserved locations with a fiber-to-the-premises network design, including plans for additional hardening for locations in high fire threat districts. This estimate assumes no re-use of existing infrastructure (e.g., poles, conduit, manholes, etc.) in the total investment.⁹ The timeline for universal service with fiber-

⁸ "CPUC To Consider Rules for Federal Broadband Funding," CPUC, February 23, 2023, Press Release, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-to-consider-rules-for-federal-broadband-funding-2023</u>. *See also*: "Order instituting rulemaking (OIR)," <u>https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M502/K359/502359503.PDF</u>. For full details on the proceeding, see: "R2302016 - Proceeding," CPUC,

https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2302016.

⁶ "NOFO: BEAD Program," NTIA, <u>https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf</u>, at p. 7.

⁷ "Infrastructure Investment and Jobs Act," U.S. Congress, <u>https://www.congress.gov/bill/117th-congress/house-bill/3684/text</u>, at §60102(f).

⁹ "California Broadband Investment Model – Last Mile Funding Analysis: Process Overview and Methods," CostQuest Associates, April 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-</u> <u>division/documents/broadband-implementation-for-california/ffa-webpages/ca-broadband-investment-</u>

to-the-premises would extend beyond the BEAD funding timeline and require additional federal and State funding.

Guided by the BEAD program requirements, the California Broadband for All Action Plan, and the outcome of the CPUC's open BEAD proceeding, the CPUC is working to develop and administer a grant program with a goal of achieving universal broadband service in California that may use a mix of technologies to fit within the BEAD allocation of \$1,864,136,508.93. The CPUC recognizes that this estimated timeline may be affected by the lack of sufficient funding or other considerations.

1.5 Confirmation that this BEAD Five-Year Action Plan meets minimum requirements

This Five-Year Action Plan meets minimum requirements as outlined in the NOFO and summarized in Section 7.1 of the NTIA's "Five-Year Action Plan: Guidance" document:

Requirement	Section in this Plan
1. Details of existing broadband program or office within the Eligible Entity	Section 3
2. Funding the Eligible Entity has available	Section 3
3. Existing efforts funded by the federal government	Section 3
4. Employees and contract support	Section 3
5. Obstacles or barriers	Section 4
6. Asset inventories	Section 3
7 Description of external encourant process	Section 3
7. Description of external engagement process	Section 5.1
8 Broadband availability and adoption data	Section 3
8. Droadband availability and adoption data	Section 5
0 Broadband sorvice peeds and gaps	Section 3
9. Droadband service needs and gaps	Section 5
10. Comprehensive, high-level plan, including estimated timeline and cost for universal service	Section 5
	Section 2
11. Digital equity and inclusion needs, goals, and implementation strategies ¹⁰	Section 3
	Section 5
12. Alignment of the Plan with other State efforts and priorities	Section 5
13. Technical assistance and capacity needed for successful implementation	Section 5

<u>model_04212023.pdf</u>. CostQuest notes that it also excluded locations from the unserved total where infrastructure projects are funded by CASF and where projects are presumed to be funded by the federal Rural Digital Opportunities Fund.

¹⁰ The CPUC is fully coordinating its BEAD activities with the California Department of Technology (CDT), which is the State of California's designated entity for the Digital Equity elements of the Infrastructure Investment and Jobs Act.

2. Overview of the Five-Year Action Plan

2.1 Vision

This Five-Year Action Plan establishes California's broadband goals and priorities—and presents a needs assessment that will inform the State's Initial Proposal.

This Plan aligns with California's <u>Broadband for All</u> initiative, which reflects Governor Gavin Newsom's significant commitment to close the digital divide in California. This is exemplified in the <u>Broadband for All Action Plan</u>, prepared in response to <u>Executive Order N-73-20</u>, and in the oncein-a-lifetime investments authorized under <u>Senate Bill 156</u> (Chapter 112, Statutes of 2021) which committed \$6 billion toward development of a statewide "open-access" middle-mile network and grants for last-mile infrastructure and technical assistance.

Under the banner of <u>Broadband for All</u>, California's commitment to closing the digital divide, the CPUC seeks to realize a vision where all Californians have access to affordable, high-performing broadband service at home, schools, libraries, and businesses.

California understands that access to broadband is not a luxury, but an essential service necessary to participate in everyday life:

- Broadband access enables individuals, including in rural communities and Tribal communities, to work, study, communicate, apply for government services, operate home-based businesses, receive emergency information, and access health care.
- Broadband powers the State's most critical systems, from its electrical grid to its water supply systems, its public safety and emergency response networks. Broadband underpins modern life.
- Broadband has helped ensure California's ability to compete on the world stage for years. Broadband enables communities to build thriving economies by attracting talent and businesses. It powers California's advancement and success in industries from higher education to manufacturing and agriculture, and in the service economy.

The Broadband, Equity, Access and Deployment (BEAD) program is part of the Biden-Harris Administration's efforts to realize the vision of "Internet for All" – which aligns perfectly with the State's existing goals—and will help California augment and expand our existing efforts to ensure every Californian is served by affordable and reliable broadband.

The State's digital equity vision is being developed through a parallel effort conducted by the California Department of Technology (CDT).

2.2 Goals and objectives

The State of California developed the <u>Broadband for All Action Plan</u> with the understanding that equity warrants broadband access that is affordable and reliable for every California. The CPUC's goals for this Five-Year Action Plan—which are aligned with the principal focus of the BEAD Program¹¹—are as follows:

- Ensure every Californian has access to quality, reliable, high-speed internet, no matter where they live, whether that be in rural communities, in cites or suburbs, or on sovereign Tribal lands.
- Make quality, reliable, high-speed internet more affordable across California, particularly for individuals living on limited incomes.
- Support the sovereignty of Tribal Nations by partnering with interested California Tribes to develop Tribal-owned broadband networks.
- Empower local and Tribal governments across California to develop and implement reliable, high-performance broadband infrastructure to support local community goals and needs.
- Strengthen partnerships and coordinate initiatives that will promote access to tools for digital inclusion, including affordable devices, technical assistance, and training.

To seek to achieve these goals, the CPUC will advance the following objectives:

- Establish a data-driven strategy to map and assess unserved and underserved locations in California so we can effectively target resources to close deployment gaps.
- Leverage all available federal and State sources of broadband funding to achieve California's broadband deployment goals, including but not limited to the California Advanced Services Fund (CASF) and broadband programs created under California SB 156.
- Create a holistic approach and framework for California's broadband infrastructure funding programs to encourage and support projects that will advance equal access to affordable, high-performance broadband and also include the devices, training, and skills necessary for digital inclusion of all Californians.
- Provide technical assistance and support to California Tribes, local governments, and other entities to help them prepare to leverage federal and State funding opportunities related to broadband.

¹¹ "NOFO: BEAD Program," NTIA, <u>https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf</u>, at p. 7.

3. Current state of broadband and digital inclusion

This section describes the current state of broadband and digital inclusion in California, as documented through rigorous and comprehensive data collection and stakeholder outreach efforts. It begins with an overview of the State's past and current efforts to promote broadband deployment and digital equity; describes the resources and relationships available to the CPUC; presents detailed asset inventories related to broadband deployment, adoption, affordability, and access, and digital equity activities; and presents a needs and gaps assessment (including a needs assessment for underrepresented communities).

3.1 Existing programs

In addition to the guidance established by the State's Broadband for All Action Plan—which lays out California's vision, goals and objectives for broadband access, deployment, and digital equity—the CPUC has significant experience administering broadband grant programs, collecting data, and mapping.

This section addresses item 1 in the Five-Year Action Plan requirements: Details of existing broadband program or office within the Eligible Entity.

3.1.1 California Advanced Services Fund

The CPUC authorized the <u>California Advanced Services Fund (CASF</u>) by adopting Decision 07-12-054 in accordance with Public Utilities (P.U.) Code § 701. The Commission adopted the CASF application requirements, timelines, and scoring criteria for parties to qualify for broadband project funding in <u>Resolution T-17143</u> in June 2008. The Legislature reaffirmed the Commission's creation of the CASF program in <u>Senate Bill (SB) 1193</u>, which then Governor Schwarzenegger signed on September 2008, and codified the program as <u>P.U. Code § 281</u>.

Currently, there are six programs under the CASF to help support broadband deployment, adoption and technical assistance. (See brief descriptions of each in the table below—and complete overviews on the CPUC's website.)¹² Because the CASF programs are funded using surcharges on the revenues collected by telecommunications carriers, these programs are ongoing and accept applications on a quarterly to annual basis, depending on the program. As a result, the CPUC has been administering broadband grant programs for over a decade and is well poised to leverage the lessons from this work into the administration of the BEAD program.

¹² "California Advanced Services Fund (CASF)," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund</u>.

One of the six CASF programs—the Broadband Infrastructure Grant Account—is intended to approve funding for broadband infrastructure projects that will provide broadband access to no less than 98 percent of California households and locations in each consortia region, as identified by the Commission, by December 31, 2032. The Legislature directed the Commission to be responsible for achieving the goals of the program. The Commission may only fund projects that "deploy infrastructure capable of providing broadband access at minimum speeds of 100 Mbps downstream and 20 Mbps upstream or the most current broadband access speed is greater...."¹³ Since its inception in 2008, as of December 2021, \$348 million has been awarded to support 108 projects potentially benefiting 327,957 households across 43 counties.

3.1.2 Broadband for All (Senate Bill 156)

As part of the 2021-2022 budget, California invested \$6 billion in federal and State funding over three years to expand broadband infrastructure, increase affordability, and enhance access to broadband for all Californians. Senate Bill 156 (Chapter 112, Statutes of 2021) outlined four new CPUC programs and made wide-ranging changes to the CASF statute. Funding is allocated for the following:

- \$3.25 billion for an open-access statewide broadband middle-mile network,
- \$2 billion for broadband last mile infrastructure projects,
- \$750 million for a loan loss reserve to support local government broadband infrastructure development, and
- \$50 million for local agency technical assistance grants including funding for Tribal entities.¹⁴

The programs are designed to address various challenges to ensuring all Californians have access to broadband service.

Open-access middle-mile – The State of California will design, build, maintain and operate an essential open-access statewide middle-mile network, which will be overseen by the California Department of Technology (CDT).

Last mile infrastructure projects – The broadband investment includes funding for a comprehensive strategy to build last-mile infrastructure to provide Californians with access to high-

¹³ California Public Utilities Code §281(f)(5).

¹⁴ CPUC, "Broadband Implementation for California," <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/broadband-implementation-for-california</u>.

speed broadband service in coordination with federal and State universal service programs, such as those to connect schools, disabled users, and low-income households.¹⁵

Loan Loss Reserve Fund – The fund will assist local governments, Tribes, and non-profits in securing enhanced private financing to construct and operate new public broadband infrastructure networks. The Fund will provide collateral to local governments to enable better borrowing rates and terms for bonds issued to deploy broadband infrastructure. The Fund provides explicit authority to enable local governments to participate in the CASF to enable public broadband infrastructure, which can be a cost-effective and revenue-generating solution for providing high-speed broadband in communities with limited or no broadband access that improves access, lowers costs, and improves customer service.

Local Agency Technical Assistance – The grants enable local and tribal governments to receive support for pre-project related costs and other work that facilitates broadband network deployment projects in communities that lack adequate broadband access. This work can include the possible formation of coalitions among municipal entities and agreements for financing of broadband infrastructure. This funding can also be used to create Joint Powers Authorities and other public organizations to deploy broadband infrastructure and for environmental permitting, engineering, and design activities.¹⁶

3.1.3 Infrastructure funding for small ILECs

The California High-Cost Fund A (CHCF-A) program provides financial support to small incumbent local exchange carriers (Small ILECs) to provide voice and broadband service in high-cost rural areas of the State.¹⁷ Small ILECS are rural telephone corporations subject to commission regulation. Currently, the CHCF-A supports 10 independent Small ILECs. The fund helps offset the high cost of providing service in the Small ILECs' territories, which are often rural areas, sparsely populated, and face geographic barriers.

As a condition of receiving CHCF-A support, a Small ILEC is subject to rate-of-return regulation and must file a General Rate Case (GRC) application—a formal proceeding used to recover costs of operating and maintaining a telephone corporation's plant and equipment, as well as providing the opportunity to achieve a reasonable rate of return.

3.1.4 California Interactive Broadband Map

The CPUC collects broadband deployment and subscriber data once a year and displays validated deployment data on the California Interactive Broadband Map to provide Californians with a means

¹⁵ CPUC, "Last-Mile Broadband Fact Sheet," <u>https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/telecommunications/broadband--fact-sheet_083021.pdf</u>.

¹⁶ CPUC, "Last-Mile Broadband Fact Sheet," <u>https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/documents/telecommunications/broadband--fact-sheet_083021.pdf</u>.

¹⁷ California Public Utilities Commission §§275, 275.6.

to look up broadband speeds and service providers in their area.¹⁸ The Map also provides information on funding eligibility by location for California Advanced Services Fund Infrastructure Account applicants. Equally important, the data inform public policies looking to bridge the digital divide in California.



Figure 1: Sample of California Interactive Broadband Map

The CPUC collects broadband data¹⁹ as of the end of the prior calendar year from all communications providers certificated and/or registered with the CPUC in early April. The California Interactive Broadband Map is updated by December the same year. It includes a public feedback tool where people may report lack of service or slow service. That data is used to validate the next round of data in the following year and may be used to evaluate grant applications.

¹⁸ California Interactive Broadband Map, <u>https://www.broadbandmap.ca.gov/</u>.

¹⁹ Pursuant to legislation, including SB 156, SB 4, AB 41, SB 28, and AB 2752 codified in Public Utilities Code Sections 281(b)(4), 281.6 and 5895.

Locations where broadband is not available²⁰ at served speeds of at least 25 Mbps download and 3 Mbps upload may be eligible for a California Advanced Services Fund (CASF) grant to offset the costs of deploying network infrastructure. Providers that fail to submit their broadband data risk having their areas funded for new broadband deployment projects by other providers.

3.1.5 CalSPEED mobile broadband speed testing

In addition to the annual broadband data collection, the CPUC also administers a semi-annual statewide mobile field-testing program called "CalSPEED." CalSPEED uses the latest smartphones from the major mobile providers to measure mobile broadband at nearly 4,000 locations in California. Data points are interpolated across surfaces to estimate service performance and quality throughout the State. Results are shown in layers on the California Interactive Broadband Map. CalSPEED's software code is open source, and available to others to use or modify.

3.1.6 Summary table: The CPUC's current and past programs

The table below identifies the CPUC's current and recent activities and programs (including stakeholder engagement conducted for purposes of the BEAD Five-Year Plan); its previous statewide plans comprising goals for the availability of broadband; and its prior experience awarding broadband deployment grants. Additional details on all programs, accounts, and proceedings are available on the CPUC's website.

Activity name	Description	Intended outcome(s)
California Broadband for All Action Plan	Resulting from Executive Order N-73-20, this Plan was developed by the California Broadband Council, including designees from 12 diverse legislative and administrative California agencies and stakeholders. The Plan includes three long-term goals that all Californians have:	Serves as a roadmap for how to achieve California's long- term goals for broadband access and deployment. Includes actionable deliverables for various State agencies, including the CPUC as it relates to performance standards, leveraging assets, reliability standards,
	1. High-performance broadband available at	attordability, partnerships, data and mapping, and more.

Table 1: Current and past activities of the CPUC

²⁰ The definition of "Serviceable Locations" in reference to the Broadband Data Collection is locations where providers have built out their broadband network infrastructure and to which they either currently provide service or could perform a standard broadband installation. A standard installation is defined in the Broadband DATA Act passed by Congress in 2020 as "[t]he initiation by a provider of fixed broadband internet access service [within 10 business days of a request] in an area in which the provider has not previously offered that service, with no charges or delays attributable to the extension of the network of the provider."

Activity name	Description	Intended outcome(s)
	 home, schools, libraries, and businesses. 2. Access to affordable broadband and necessary devices. 3. Access to training and support to enable digital inclusion. 	The BEAD program aligns with the State's existing Broadband for All Action Plan and will augment and expand the State's existing efforts to ensure every Californian is served by affordable and reliable broadband.
<u>California Advanced Services</u> <u>Fund – Infrastructure Grant</u> <u>Account</u>	A competitive grant program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To provide broadband access to no less than 98% of California households in each consortia region. The program provides grants to subsidize the cost of last-mile, and some middle-mile, infrastructure to expand the State's broadband network.
California Advanced Services Fund – Line Extension Program	A competitive grant program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To help individual household and/or property owner that meets a qualifying income threshold offset the costs of connecting a household or property to an existing or proposed facility-based broadband provider.
<u>California Advanced Services</u> <u>Fund – Public Housing</u> <u>Account</u>	A program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To provide grants and low-cost loans to build networks offering free broadband service for residents of low- income communities including but not limited to, publicly supported housing developments, and other housing developments or mobile home parks with low- income residents.

Activity name	Description	Intended outcome(s)
California Advanced Services Fund – Broadband Adoption Account	A competitive grant program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To increase publicly available or after-school broadband access and digital inclusion education through use of tools such as grants for digital literacy training programs and public education to communities with limited broadband adoption. The CPUC is required to give preference to programs and projects in communities with demonstrated low broadband access, including low-income communities, senior citizen communities, and communities facing socioeconomic barriers to broadband adoption.
California Advanced Services <u>Fund – Rural and Urban</u> <u>Regional Broadband Consortia</u> <u>Grant Account</u>	A program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To provide grants to eligible consortia to facilitate deployment of broadband services by assisting CASF broadband infrastructure grant applicants in the project development or application process.
<u>California Advanced Services</u> <u>Fund - Tribal Technical</u> <u>Assistance</u>	A program administered by the CPUC that is funded via a surcharge rate on the revenues collected by telecommunications carriers from end-users.	To provide grants to assist California Tribes in developing market studies, feasibilities studies, and/or business plans, which support Tribes in their pursuit of improved communications and broadband.
<u>Middle-Mile Broadband</u> <u>Initiative (MMBI)</u>	A \$3.25 billion program administered by the California Department of Technology (CDT) to create an open- access middle-mile network.	To build the necessary infrastructure to bring internet connectivity to homes,

Activity name	Description	Intended outcome(s)
	Responsible entities are CDT and the Office of Broadband and Digital Literacy, the CPUC, Caltrans, and GoldenStateNet. Network design and construction is monitored by the 12-member Middle-Mile Advisory Committee (MMAC).	businesses, and community institutions. The MMBI is an essential component of the State's Broadband for All efforts and will enable last-mile broadband infrastructure projects through reducing costs and providing middle-mile infrastructure where none exists.
		The CPUC is a participant in the MMAC, along with 11 other diverse State and local government agency members representing finance, transportation, and local government interests.
Last-Mile Federal Funding Account	A \$2 billion competitive grant program administered by the CPUC and funded via SB 156.	To provide grants for last-mile broadband connectivity to unserved communities across California. Funding will be distributed across all California counties to ensure broad opportunities to advance both statewide and local broadband deployment goals.
Loan Loss Reserve Fund	A credit enhancement program administered by the CPUC and funded via SB 156.	To assist local governments, Tribes, and non-profits in securing enhanced private financing to construct and operate new public fiber networks.
Local Agency Technical Assistance	A grant program administered by the CPUC to support local capacity building.	Provides grants support to Tribes and local agencies in their efforts to expand broadband service to unserved and underserved Californians. For planning work that will facilitate high-speed

Activity name	Description	Intended outcome(s)
		broadband infrastructure projects.
<u>Broadband Internet</u> <u>Caseworkers</u>	CPUC field staff working across California to support local governments, Tribes, and community-based organizations considering applying to the CPUC's broadband programs.	Caseworkers provide seminars and expertise about grants, project planning, data and mapping, business models, and regulations.
California Broadband Council	The CPUC participates as a member of the 12-member Council which is facilitated by the California Department of Technology's Office of Broadband and Digital Literacy. The Council provides support through its member entities to further implementation of the California Broadband for All initiative.	The Council jointly developed the Broadband for All Action Plan that serves as the playbook for implementing the California Broadband for All initiative. The Council identifies State resources, encourages public and private partnerships, and recommends strategic policy to establish effective structures for providing world-class high- speed internet access throughout California. The CPUC is a member of this multi-agency Council that includes stakeholders from the Legislature, transportation, finance, public safety, agriculture, government services, Tribal, education, and libraries.
Data Collection and Mapping: <u>California Interactive</u> Broadband Map	The CPUC collects broadband availability data once a year and displays it on	The Map provides information on funding eligibility by location for CASF
<u>Federal Funding Account</u> <u>Public Map</u>	the <u>California Interactive</u> <u>Broadband Map</u> and the Federal Funding Account Public Map to provide Californians a means to look up broadband speeds and	Infrastructure Account applicants, based on that program's specific eligibility criteria. Equally important, the data inform public policies

Activity name	Description	Intended outcome(s)
	service providers in their area and to support applications for funding for broadband deployment projects. The CPUC also uses confidential subscriber data collected to validate deployment data submitted to FCC by service providers.	looking to bridge the digital divide in California. The CPUC also maintains a <u>Federal Funding Account</u> <u>Public Map</u> , which identifies unserved locations using the criteria established for that specific last-mile funding program.
Broadband Grants Portal	Established to serve as a complete life-cycle grant application and management platform for the \$2 billion Last-Mile Federal Funding Account.	The CPUC plans on building- out the Portal, to develop additional modules for other SB 156 programs and CASF Programs. Likewise, the CPUC will build a module in this platform to manage BEAD applications and grants.
CalSPEED	Semi-annual statewide mobile field-testing program, uses the latest smartphones from the major mobile providers to measure mobile broadband at nearly 4,000 locations in California.	Estimate service performance and quality throughout the State. Results are shown in layers on the California Interactive Broadband Map.
<u>California LifeLine Program</u>	Provides monthly subsidy to low-income qualified participants for wireline or mobile voice and broadband services. Two LifeLine pilot programs launched in June 2023 – one for wireline broadband services and one for wireless broadband services – enable service providers to combine	Works in tandem with federal Lifeline program, aiding broadband affordability.

Activity name	Description	Intended outcome(s)
	the California LifeLine and federal ACP subsidies. ²¹	
<u>California Teleconnect Fund</u>	Provides 50 percent discount on advanced communication services to qualifying K-12 schools, libraries, community colleges, government-owned hospitals/health clinics, and community-based organizations.	Spurs broadband affordability.
California Broadband For All Portal ²²	Per the Broadband For All Action Plan, the Broadband for All Portal was established to be a central repository of information for broadband efforts in California. Currently managed by CDT to allow interested stakeholders to track each Broadband for All initiative and find planning resources and information.	Includes information on the State's broadband efforts to support transparency and capacity building. Includes detailed descriptions of last- mile funding programs, the middle-mile initiative, affordability programs, and work on the State's Digital Equity Plan. Also includes links to multiple broadband maps, funding opportunities, a speed test, planning toolkits, and environmental and permitting review resources.
Affordable Connectivity Program enrollment tracker ²³	Tracks numbers of California households eligible for and enrolled in ACP statewide, by county, and by ZIP code.	Provides ACP enrollment data for planning and outreach efforts.

²¹ "CPUC Advances Broadband Affordability and Access in California," CPUC, June 8, 2023, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-affordability-and-access-in-california-2023</u>.

²² "California Broadband for All," <u>https://broadbandforall.cdt.ca.gov/</u>.

²³ "California Broadband for All: ACP enrollment tracker," <u>https://broadbandforall.cdt.ca.gov/affordable-connectivity-program/acp-enrollment/</u>.

3.1.7 Summary table: The CPUC's program staffing

The CPUC's staff has managed proceedings, needs assessments, and grant programs designed to identify and close the State's digital divide. The tables below identify a conceptual approach to the current and planned full- and part-time employees and contractors who will assist in implementing and administering BEAD-funded activities and programs to achieve the CPUC's goals and objectives.

Because of the nature of the BEAD program—most notably, how quickly the program needs to be administered—and the CPUC's own decision-making process, the CPUC will need to staff up quickly to develop the infrastructure and systems necessary to run the challenge process and the BEAD grant-making process. The CPUC anticipates expanding its staffing through the application evaluation process, and likely will reduce staffing as it enters the grant management phase.

CPUC plans to expand staff using existing Commission funds to the extent possible so as to maximize the impact of BEAD funding through grant-making. In addition to the three existing staff positions funded by BEAD Initial Planning Funds, the CPUC anticipates adding approximately 17 full-time staff to handle tasks related to program management, program design, data analysis, application review, grant compliance.

This table addresses item 4 in the Five-Year Action Plan requirements: Employees and contract support.

Current/ planned	Full-time/ part-time	Position	Description of role
Current (Funded by BEAD-IPF Grant Award # 05-20-B278)	FT	Program and Project Supervisor	The Program and Project Supervisor (PPS) position will handle supervisory and project management duties for the BEAD planning activities. The position duties will include day- to-day project activities to oversee development of the 5- Year Action Plan, create and submit the Initial and Final Proposals, manage the contractor(s) and deliverables tied to each activity, and assist with hiring for a separate BEAD branch within the CPUC's Communications Division.

Table 2: Current and planned full-time and part-time employees

Current/ planned	Full-time/ part-time	Position	Description of role
Current (Funded by BEAD-IPF Grant Award # 05-20-B278)	FT	Public Utilities Regulatory Analyst V	The Senior Analyst position's duties will include hiring new staff, as well as serving as the lead analyst for the rulemaking that will define the rules and procedures for the BEAD subgrantee program.
Current (Funded by BEAD-IPF Grant Award # 05-20-B278)	FΤ	Staff Services Manager I (Outreach Coordinator)	The Outreach Coordinator position, Staff Services Manager I Specialist (SSM I) duties will include managing the public outreach activities (BEAD-IPF Activity 3); coordinating regularly with CDT; building relationships and strengthening existing partnerships with State, local, and regional stakeholders; developing communications and engagement materials; coordinating with subrecipients on any needed trainings and resources; and maintaining internal social media presence and messaging.
Planned	FT	17 staff members (estimated)	Limited-term employees who will be part of the CPUC's BEAD implementation team over the course of the program.

Table 3: Current and planned contractor support

Current/ planned	Full-time/ part-time	Position	Description of role
	FT	BEAD Program (BEAD-IPF	Support the CPUC in writing its
Current		Grant): Five-Year Plan and	BEAD Five-Year Action Plan
		Initial Proposal Primary	and Initial Proposal. The Scope
		Contractor. (CPUC Agreement	of Work for this issued
		# 93788, issued to Columbia	Agreement includes\ research,
		Telecommunications	analysis, strategic guidance, and

Current/ planned	Full-time/ part-time	Position	Description of role
		Corporation, dba CTC Technology & Energy, of Kensington, MD, 06/30/23).	coordination with CPUC staff and other retained contractors on broadband and socioeconomic data and mapping production.
Current	FT	BEAD Program (BEAD-IPF Grant): Geographic Information Services (GIS) Consulting for Multi-Program Alignment. (CPUC Purchase Order # 6530 issued to Sunstoneit LLC of Roseville, CA, 06/23/23).	GIS analysis, data handling, data stewardship, and multi-site alignment and coordination within an ArcGIS environment.
Planned	FΤ	BEAD Program (BEAD-IPF Grant): Data processing, production of datasets, data analytics, production of public facing websites, dashboards, and mapping production.	Data processing contractor to support the CPUC's production requirements of the Five-Year Action Plan and identified elements of the Initial Proposal.
Planned	FT	BEAD Program (BEAD-IPF Grant): Updates to the California Broadband Cost Model required for BEAD planning phase, including analysis of High-Cost, Extremely High-Cost, and associated data, with dataset production, GIS information, and policy advisory services as required.	IT-related professional services to support CPUC's BEAD planning requirements relating to California Broadband Cost Model updates as required in the listed phases of the BEAD Program.
Planned	FT	IT platform contractor	Contractor to develop the CPUC's grant management system, to accommodate both the Federal Funding Account (FFA), and the BEAD Program.
Planned	FT	IT platform contractor	Contractor to develop the CPUC's State Challenge Process Portal.

Current/ planned	Full-time/ part-time	Position	Description of role
Planned	FΤ	Communications specialist	Contractor to support communications and engagement.

3.1.8 Summary table: The CPUC's available funding

The table below identifies the CPUC's currently available funding for broadband deployment and other broadband-related activities. For all SB 156 Programs and CASF Account Programs, the information provided in the table is based on an 'as of date' of July 1, 2023.

The CPUC received grant applications for the Infrastructure Grant Account on June 1, 2023, and will be evaluating applications for funding, with a Commission decision on applications by late 2023.

In addition, the CPUC received grant applications for the Adoption Account, the Public Housing Account, and Tribal Technical Assistance on July 3, 2023. The CPUC will consider these applications over the coming months and will make a funding determination by the end of 2023.

The Last-Mile Federal Funding Account opened its first round of funding on June 30, 2023, with the window remaining open until September 29, 2023. The CPUC has 180 days from the time the window closes to make determinations regarding all applications received.

Source	Purpose	Total	Expended	Available
CPUC Federal Funding Account*	Fund last-mile broadband infrastructure projects in every county. Must be allocated by the CPUC by December 31, 2026, and available for encumbrance, expenditure, and liquidation until December 31, 2028.	\$252,693,000 for FY 23/24 (Roughly \$2 billion is available over the life of the program)	\$0	\$252,693,000 for FY 23/24 (Roughly \$2 billion is available over the life of the program)
CPUC Loan Loss Reserve**	Enable local governments, Tribal entities, and nonprofits to secure financing for broadband infrastructure	\$175,000,000 for FY 23/24 (\$750 million is available over the life of the program)	\$0	\$175,000,000 for FY 23/24 (\$750 million is available over the life of the program)

Table 4: Broadband funding

Source	Purpose	Total	Expended	Available
CPUC CASF Infrastructure Account ***	Subsidies to build broadband infrastructure in unserved parts of California, particularly in areas with barriers to access	\$37,769,000	\$0	\$37,769,000
CPUC CASF Line Extension Account ***	Helps individual household and/or property owner offset the costs of connecting a household or property to an existing or proposed facility-based broadband provider	\$688,000	\$0	\$688,000
CPUC CASF Public Housing Account ***	Grants to build broadband offering free service for low- income communities including publicly supported housing developments, and other housing developments or mobile home parks with low-income residents	\$15,000,000	\$0	\$15,000,000
CPUC CASF Adoption Account***	Grants for broadband access and digital inclusion education, such as grants for digital literacy training programs and public education to communities with limited broadband adoption	\$20,024,000	\$0	\$20,024,000
CPUC CASF Tribal Technical Assistance***	Grants to assist California Tribes in developing market studies, feasibilities studies, and/or business plans, which support Tribes in their pursuit of improved communications and broadband	\$2,300,000	\$0	\$2,300,000
CPUC Local Agency	Grants support Tribes and local agencies in their efforts to expand broadband service	\$50,000,000	\$50,000,000	\$0

Source	Purpose	Total	Expended	Available
Technical Assistance	to unserved and underserved Californians. For planning work that will facilitate high- speed broadband infrastructure projects		(As of July 1, 2023, all funds have been allocated or requested.)	
NTIA Broadband Equity, Access, and Deployment —Initial Planning Funding	The NTIA issued funds to the CPUC on 12/01/22 under the Initial Planning Funding phase of the BEAD Program (BEAD-IPF). This award is for personnel resources at CPUC to build the capacity of Commission staff assigned to BEAD planning duties. Additionally, the funding will be used by the CPUC to retain contractors to assist in writing the BEAD Five-Year Action Plan, and the first elements of the BEAD Initial Proposal.	\$4,996,502	\$978,000	\$4.0 million
NTIA Broadband Equity, Access, and Deployment	BEAD funding allocation	\$1,864,136,508.93		\$1,864,136,508.93

*The Federal Funding Account opened for its first funding cycle on June 30, 2023, with the window staying open until September 29. The CPUC has up to 180 days from the time the window closes to make determinations on all applications.

**The Loan Loss Reserve is still in development by the Commission and is expected to begin accepting applications in later 2023.

***Assumes new fiscal year starting balances based on approved budget.

3.2 Partnerships

The table below identifies the CPUC's current and potential future partners in the development and implementation of this Plan. These partners include organizations already engaged in broadband

deployment and digital inclusion efforts (e.g., local governments, Tribes, K-12 schools, higher education, ISPs) and entities the CPUC has identified as potential future collaborators.

As noted elsewhere in this Plan, the CPUC is the Eligible Entity for the State's Five-Year Action Plan—while the California Department of Technology (CDT) is responsible for preparing the State's Digital Equity Plan. The CPUC and CDT are closely collaborating on these efforts, which naturally include joint outreach and engagement with local communities and other potential partners.

Some of the entities identified in this table are partners with which the CPUC is already working closely, while others are entities that the CPUC hopes will become strong partners. The table thus represents a sample of the range of potential partners and types of partners the CPUC will engage as it implements the Five-Year Action Plan. The CPUC also considers as partners the many entities to which it has awarded grant funding through current and past programs; details on those recipients are available on the CPUC's website.

Partners	Description of current or planned role in broadband deployment and adoption
California Department of Technology (CDT) ²⁴	CDT oversees the coordination and implementation of the Broadband for All program and initiatives through the California Broadband Council, which it chairs. Per the Action Plan, CDT leads statewide efforts to enhance permitting at all levels of government, leverage State contracting vehicles, leads efforts to promote and track adoption of low-cost service options and the Affordable Connectivity Plan, developed and manage a multi-level network of digital inclusion entities in the state, developed and maintains the State's Broadband For All Portal and provides guidance to State departments and agencies to incorporate broadband into their strategic plans. As directed by SB 156, CDT (through its Office of Broadband and Digital Literacy) is overseeing the acquisition and management of contracts for development, construction, operation, and maintenance of the Middle-Mile Broadband Network, and has retained a Third-Party Administrator (TPA) to manage the construction and operation of the network. CDT has also created

Table 5: Partners

²⁴ "About," CDT, <u>https://cdt.ca.gov/about/</u>.

Partners	Description of current or planned role in broadband deployment and adoption
	the nine-member Middle-Mile Advisory Committee to monitor the project. ²⁵
	Per Assembly Bill 2750, CDT is the State's Digital Equity Entity responsible for preparing the State's Digital Equity Plan administering the Digital Equity program.
California Department of Education (CDE)	CDE is a member of the California Broadband Council and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
California State Library (CSL)	CSL is a member of the California Broadband Council and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
	CSL conducts extensive digital equity initiatives in the State, including a Digital Navigator Program and California Library Connect, a high-speed broadband infrastructure program aimed at connecting all California libraries to gigabit speeds.
California Department of Housing and Community Development (HCD)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
	Per Action Item 15 of the Broadband for All Action Plan, HCD leads the effort to leverage existing Housing and Community

²⁵ "Middle-Mile Broadband Initiative," Broadband for All, <u>https://broadbandforall.cdt.ca.gov/middle-mile-broadband-initiative/</u>.

Partners	Description of current or planned role in broadband deployment and adoption
	Development programs to provide free broadband service for tenants in newly built housing and publicly subsidized units.
Governor's Office of Business and Economic Development (GO-Biz)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
	Per Action Item 2 of the Broadband for All Action Plan, Go-Biz leads the effort to Identify alternative financing opportunities with government and philanthropic partners to maximize funding for new infrastructure.
California State Transportation Agency (CalSTA)	CalSTA is a Broadband Council member and supports the implementation of the Broadband for All Action Plan. Per Action Items 4 and 5 CalSTA was directed to and completed the development a statewide Dig Smart policy and improved State encroachment permitting processes and rights-of-way management. ²⁶
	The California Department of Transportation (Caltrans) within CalSTA will also work with the Third-Party Administrator to manage construction of the Middle-Mile Broadband Network along State highways and rights-of-way.
Department of General Services (DGS)	DGS is a members of the California Broadband Council and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion). Per Action Item 7, DGS is leading the State's effort to Identify State property for possible use for broadband infrastructure.

²⁶ "Wired Broadband Facilities on State Highway Right of Way," Caltrans, <u>https://dot.ca.gov/programs/design/wired-broadband</u>.

Partners	Description of current or planned role in broadband deployment and adoption
California Office of Emergency Services (OES)	OES is a member of the California Broadband Council and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses). Per Action Item 8, OES Regularly coordinates and convenes with jurisdictions implementing next-generation 9-1-1 to expand broadband infrastructure.
California Department of Aging (CDA)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion). Per Action Item 15, CDA leads the effort to analyze the needs of the aging population for access to affordable, reliable, high-speed broadband, and identify programmatic and partnership opportunities to meet these needs.
California Government Operations Agency (GovOps)	GovOps is the parent agency to CDT and many executive branch entities and provides advice and guidance on the State's Broadband for All program.
California Department of Public Health (CDPH)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
	CDPH is a member of the Statewide Digital Equity Planning and Implementation Group.
California Department of Social Services (DSS)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).

Partners	Description of current or planned role in broadband deployment and adoption
	DSS is a member of the Statewide Digital Equity Planning and Implementation Group.
California Department of Food and Agriculture (CDFA)	CDFA is a member of the California Broadband Council and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
California Labor and Workforce Development Agency (LWDA)	LWDA is a member of the Statewide Digital Equity Planning and Implementation Group and supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high-performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
<u>California Workforce</u> <u>Development Board</u>	Supports workforce development support and innovation, policy development, and driven by objectives from California's Unified Strategic State Plan to foster skills attainment programs, enable upward mobility for all Californians and coordinating programs and services to this end. The Workforce Development Board administers the "High Road Training Partnerships" initiatives designed to develop partnerships strategies for industry-based, worker-focused training and skills building programs that promote innovation and investment in human capital.
Governor's Office of Planning and Research (OPR)	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
California Natural Resources Agency (CNRA)	Supports the implementation of the Broadband for All Action Plan and plays a key role in Action Item 6 to enhance permitting processes at all levels of government.

Partners	Description of current or planned role in broadband deployment and adoption
California Environmental Protection Agency (Cal EPA)	Supports the implementation of the Broadband for All Action Plan.
California Business, Consumer Services and Housing Agency	Supports the implementation of the Broadband for All Action Plan. Responsibilities include Goal 1 (All Californians have high- performance broadband available at home, schools, libraries, and businesses), Goal 2 (All Californians have access to affordable broadband and the devices necessary to access the internet), and Goal 3 (All Californians can access training and support to enable digital inclusion).
University of California	The University of California improves the lives of people in California and around the world through world-class educational opportunities, groundbreaking research, top-rated health care and agricultural expertise. UC consists of ten campuses, six academic health centers, three research laboratories, and 294,309 students. UC was a significant contributor in the joint Digital Equity and BEAD planning process and will be a critical implementation partner.
California State University (CSU)	The nation's most diverse four-year university—ethnically, economically and academically—consists of 23 campuses and educates nearly 460,000 students annually. CSU was a significant contributor in the CPUC and CDT's joint Digital Equity and BEAD planning process and will be a critical implementation partner.
California Community Colleges (CCC)	With 1.8 million students attending 116 colleges, CCC's mission is to provide students with the knowledge and background necessary to compete in today's economy. CCC was a significant contributor in the CPUC and CDT's joint Digital Equity and BEAD planning process and will be a critical implementation partner.
Corporation for Education Network Initiatives in California (CENIC)	Established in 1997, CENIC operates the <u>California Research and</u> <u>Education Network (CalREN)</u> , a high-capacity computer network with more than 8,000 miles of optical fiber. The network serves over 20 million users across California, including the vast majority of K-20 students together with educators, researchers, and individuals at other vital public-serving institutions.

Partners	Description of current or planned role in broadband deployment and adoption
California Emerging Technology Fund (CETF)	A non-profit corporation for the purpose of achieving ubiquitous access to broadband and advanced services in California by forging strategic partnerships and collaboration with civic leaders and community organizations; CETF focuses on:
	• Rural communities that lack broadband infrastructure.
	• Urban poor and disadvantaged communities that lack computers and affordable connections to the Internet with relevant applications.
	• Disabled populations that lack technology accessibility (which will be addressed in part by promoting universal design of all technology to be accessible and integrating accessibility into all efforts). ²⁷
	CETF is a member of the California Broadband Council and contributes to the implementation of the Broadband for All Action Plan.
	CTEF co-leads the State's Get Connected! California Affordable Connectivity Program statewide mobilization effort in partnership with CDT, CPUC, and other California Broadband Council members.
Internet service providers	The CPUC received dozens of proposals in June 2023 for projects to be funded by the CASF infrastructure Account—demonstrating the potential range of ISPs interested in partnering on broadband deployment across the State. ²⁸
	ISPs have also been a critical part of the public input and dialogue regarding State policy and planning for broadband deployment and they are expected to continue their participation going forward.
Broadband Consortium of the Pacific Coast ²⁹	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of California Emerging Technology Fund (CETF) grant

²⁷ "Mission and History," CETF, <u>https://www.cetfund.org/about-us/mission-and-history/</u>.

²⁸ "CASF Infrastructure Project Summaries," CPUC, June 1, 2023, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-infrastructure-project-summaries</u>.

²⁹ Broadband Consortium of the Pacific Coast, <u>http://pcbroadband.org/</u>.
Partners	Description of current or planned role in broadband deployment and adoption
	from the CPUC to augment California Advanced Services Fund (CASF) work. ³⁰
Central Coast Broadband	A group of local civic organizations that support broadband
Consortium	deployment and can play a key role in outreach and engagement.
	Disseminates information about ACP, Lifeline, and public Wi-Fi.
	Recipient of CASF grant from the CPUC. ³²
Central Sierra Economic	A group of local civic organizations that support broadband
Development District ³³	deployment and can play a key role in outreach and engagement.
	Recipient of CASF grant from the CPUC. ³⁴
Connected Capital Area	A group of local civic organizations that support broadband
Broadband Consortium ³⁵	deployment and can play a key role in outreach and engagement.
	Activities include support for ACP enrollment. Recipient of CASF grant from the CPUC. ³⁶

³⁰ "Annual Work Plan and Performance Metrics Plan," Broadband Consortium Of The Pacific Coast, January 12, 2023, https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-andaccess/consortia/t17778-documents/bcpc-t17778-work-plan.pdf.

³¹ Central Coast Broadband Consortium, <u>https://centralcoastbroadbandconsortium.org/</u>.

³² "Annual Work Plan and Performance Metrics Plan," Central Coast Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/ccbc-t17778-work-plan.pdf</u>.

³³ Central Sierra Economic Development District, <u>https://www.csedd.org/.</u>

³⁴ "Annual Work Plan and Performance Metrics Plan," Central Sierra Economic Development District, January 13, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/csbuz-t17778-work-plan.pdf.</u>

³⁵ Connected Capital Area Broadband Consortium, <u>https://www.valleyvision.org/projects/connected-community-initiative/</u>.

³⁶ "Annual Work Plan and Performance Metrics Plan," Connected Capital Area Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/ccabc-t17778-work-plan.pdf</u>.

Partners	Description of current or planned role in broadband deployment and adoption
Gold Country Broadband Consortium ³⁷	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ³⁸
Inland Empire Regional Broadband Consortium ³⁹	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁴⁰
Inyo-Mono Broadband Consortium ⁴¹	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁴²
Los Angeles Digital Equity Action League ⁴³	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁴⁴

³⁷ Gold Country Broadband Consortium, <u>https://www.sierrabusiness.org/archives/gold-country-broadband-consortium/</u>.

³⁸ "Annual Work Plan and Performance Metrics Plan," Gold Country Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/gcbc-t17778-work-plan.pdf</u>.

³⁹ Inland Empire Regional Broadband Consortium, <u>http://www.iebroadband.com/</u>.

⁴⁰ "Annual Work Plan and Performance Metrics Plan," Inland Empire Regional Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/ierbc-t17778-work-plan.pdf</u>.

⁴¹ Inyo-Mono Broadband Consortium, <u>https://escog.ca.gov/inyomono-broadband-consortium</u>.

⁴² "Annual Work Plan and Performance Metrics Plan," Inyo-Mono Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/imbc-t17778-work-plan.pdf</u>.

⁴³ Los Angeles Digital Equity Action League, <u>https://ladeal.org/</u>. Convened by Los Angeles County Economic Development Corporation (LAEDC) (https://laedc.org/) and UNITE-LA (<u>https://www.unitela.com/</u>).

⁴⁴ "Annual Work Plan and Performance Metrics Plan," Los Angeles Digital Equity Action League, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/ladeal-t17778-work-plan.pdf</u>.

Partners	Description of current or planned role in broadband deployment and adoption
North Bay/North Coast Broadband Consortium ⁴⁵	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁴⁶
Northeastern California Connect Consortium ⁴⁷	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁴⁸
Redwood Coast Connect Broadband Consortium ⁴⁹	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁵⁰
San Joaquin Valley Regional Broadband Consortium ⁵¹	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁵²

⁴⁵ North Bay / North Coast Broadband Consortium, <u>https://www.nbncbc.org/home</u>.

⁴⁶ "Annual Work Plan and Performance Metrics Plan," North Bay / North Coast Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/nbncbc-t17778-work-plan.pdf</u>.

⁴⁷ Northeastern California Connect Consortium, <u>https://necalbroadband.org/</u>.

⁴⁸ "Annual Work Plan and Performance Metrics Plan," Northeastern California Connect Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/neccc-t17778-work-plan.pdf</u>.

⁴⁹ Redwood Coast Connect, <u>https://redwoodcoastruralaction.org/the-work/redwood-coast-connect/</u>.

⁵⁰ "Annual Work Plan and Performance Metrics Plan," Redwood Coast Connect Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/rcbc-t17778-work-plan.pdf.</u>

⁵¹ San Joaquin Valley Regional Broadband Consortium, <u>http://www.sjvpartnership.org/work-groups/advanced-communications-services/</u>.

⁵² "Annual Work Plan and Performance Metrics Plan," San Joaquin Valley Regional Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/sjvrbc-t17778-work-plan.pdf.</u>

Partners	Description of current or planned role in broadband deployment and adoption
Southern Border Broadband Consortium ⁵³	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC. ⁵⁴
Tahoe Basin Project's Connected Tahoe project ⁵⁵	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC for Connected Tahoe project. ⁵⁶
Upstate California Connect Consortium ⁵⁷	A group of local civic organizations that support broadband deployment and can play a key role in outreach and engagement. Recipient of CASF grant from the CPUC for Connected Tahoe project. ⁵⁸
Rural County Representatives of California (RCRC)	RCRC is a 40-member service organization that champions policies on behalf of California's rural counties. RCRC provides the rural county perspective on a myriad of issues during the legislative and regulatory process, including land use, water and natural resources, housing, transportation, wildfire protection policies, and health and human services. The core of RCRC's mission is to improve the ability of small, rural California county government to provide services by reducing the burden of state and federal mandates, and promoting a greater understanding among policy makers about the unique challenges that face California's small population counties. ⁵⁹

⁵³ Southern Border Broadband Consortium, <u>https://www.ivedc.com/initiatives/broadband</u>.

⁵⁴ "Annual Work Plan and Performance Metrics Plan," Southern Border Broadband Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/sbbc-t17778-work-plan.pdf</u>.

⁵⁵ "Connected Tahoe," Tahoe Prosperity Center, <u>https://tahoeprosperity.org/connected-tahoe/</u>.

⁵⁶ "Annual Work Plan and Performance Metrics Plan," Tahoe Basin Project, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/tbp-t17778-work-plan.pdf</u>.

⁵⁷ Upstate California Connect Consortium, <u>https://upcalbroadband.org/</u>.

⁵⁸ "Annual Work Plan and Performance Metrics Plan," Upstate California Connect Consortium, January 12, 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-adoption-and-access/consortia/t17778-documents/uccc-t17778-work-plan.pdf</u>.

⁵⁹ RCRC, <u>https://www.rcrcnet.org/about-rcrc</u>.

3.3 Asset inventory

This section catalogs and describes a sample of broadband deployment (infrastructure), broadband adoption, broadband affordability, broadband access, and digital equity activities across the State of California. These inventories comprise agencies that have hard assets, such as utility poles and land, and soft assets such as programs and activities that aim to close the digital divide.

These inventories are not exhaustive in their scope; rather, they focus on the types of assets the CPUC believes may play a role in implementing this Plan. Additional asset inventory data, including for digital equity activities, are included in Appendix A.

This section addresses item 6 in the Five-Year Action Plan requirements: Asset inventories.

3.3.1 Broadband deployment

The table below lists examples of the types of State-owned structures, land, rights-of-way, utility poles, conduit, fiber, and other assets that might be leveraged to implement the Five-Year Action Plan. As the CPUC continues its broadband data gathering and deployment planning, it will reach out to key State agencies to coordinate opportunities to leverage these assets in critical unserved areas of the State. A discussion of available workforce assets to deploy broadband is in Section 3.4.1.

Asset name	Description
California Middle-Mile	Fiber strands will be available on the State's planned open-access
Broadband Network (MMBN)	statewide Middle-Mile Broadband Network (MMBN); ISPs will be
	able to lease backbone fiber throughout the State. MMBN project
	direct focus on uncorrect areas, and are also in locations with
	middle-mile infrastructure that currently lacks sufficient open
	access, capacity, and affordable rates.
State-owned land	Land owned by State entities may be available for placement of
	huts or other broadband infrastructure. Per Action Item / of the
	California Broadband for All Action Plan, the Department of
	General Services (DGS) is leading the State's effort to Identify
	State property for possible use for broadband infrastructure.
State-owned buildings	Buildings owned by State entities may be available for placement of
	network electronics or other broadband infrastructure. Per Action
	Item 7 of the California Broadband for All Action Plan, the
	Department of General Services (DGS) is leading the State's effort
	to Identify State property for possible use for broadband
	infrastructure.

Table 6: Broadband deployment assets

Asset name	Description
State-owned and utility towers	Towers owned by the State and other entities such as public and investor-owned utility companies and telecommunications companies may be available for placement of antennas or other broadband infrastructure.
Rights-of-way	Rights-of-way controlled by the State may be available for placement of fiber, huts, or other broadband infrastructure.

In addition, to meet objectives of the Broadband for All Action Plan goal of broadband availability, the California State Transportation Agency has implemented a Dig Smart policy to install conduit as part of any appropriate and feasible State-funded transportation project in strategic corridors, as well as improving State encroachment permitting processes and rights-of-way management, as needs or opportunities are identified, to accelerate broadband deployment.⁶⁰ Additionally, the State Legislature has directed all State agencies to work in cooperation to expedite delivery and permitting of the MMBN and has developed a streamlined process for procurement and State contracting to support MMBN and the State's related broadband policy goals.⁶¹

3.3.2 Broadband adoption

This section describes the current state of broadband adoption (i.e., the percentage of residents who have adopted broadband) and identifies broadband adoption assets. This section addresses item 8 in the Five-Year Action Plan requirements: Broadband availability and adoption data.

According to the most recent NTIA data (November 2021), 76.4 percent of California residents use internet at home⁶² and 81.2 percent of residents use internet at any location.⁶³

The table below lists a sample of programs that promote broadband adoption—such as through digital literacy and digital skills training, public computing labs, device and hotspot loans, K-12 schools with one-to-one computer programs, computer refurbishing efforts, and other broadband awareness and outreach efforts. These assets are available to most covered populations and historically underrepresented communities. Additional assets are included in Appendix A.

⁶⁰ "Action Plan progress tracker," California Broadband for All, <u>https://broadbandforall.cdt.ca.gov/progress-tracker/</u>.

⁶¹ California Government Code §§11549.55, 11549.56 (SB 156).

⁶² "Digital Nation Data Explorer: Internet Use at Home," NTIA, November 2021 data, <u>https://ntia.gov/other-publication/2022/digital-nation-data-explorer</u>.

⁶³ "Digital Nation Data Explorer: Internet Use (Any Location)," NTIA, November 2021 data, <u>https://ntia.gov/other-publication/2022/digital-nation-data-explorer</u>.

The California Department of Technology (CDT) is also developing broadband adoption asset inventories as part of its parallel effort to develop the State's Digital Equity Plan. Additional broadband adoption assets will be identified by CDT in that Plan.

Table 7: Broadband adoption assets

Asset name	Description
Broadband Adoption Account	Provides grants to increase publicly available or after-school broadband access and digital inclusion.
Broadband Public Housing Account	Awards grants to low-income communities to finance projects to connect broadband networks that offer free broadband service.
Rural and Urban Regional Broadband Consortia Account	Facilitates deployment of broadband services by assisting CASF infrastructure grant applicants in project development.
Deaf and Disabled Telecommunications Program	Provides specialized telecommunications equipment, speech generating devices, and relay services to qualified Californians.
Get Connected CA! Statewide ACP Mobilization	Led by CDT, CPUC, CETF, and other Broadband Council members this efforts is driving and tracking enrollment in the FCC's Affordable Connectivity Program.
FCC ACP Outreach Grants	15 State and local entities have received almost \$6 million in FCC ACP outreach grants to raise awareness, conduct direct notification, and provide enrollment assistance in the ACP program. CDT, CETF, and numerous local entities are grant recipients.
Oakland Public Library	Offers Wi-Fi hotspot loans ⁶⁴ and has computers available for use. ⁶⁵
Tech Exchange	This Bay Area organization provides affordable computers, technology support, and digital literacy training, and helps community members access the internet. It accepts donations and resells refurbished devices at a discount. ⁶⁶
San Diego Futures Foundation	Offers low-cost refurbished computers for under-resourced community members and nonprofits in San Diego, as well as adaptive technology and digital skills training. ⁶⁷

⁶⁴ "Borrow a Wi-Fi Hotspot," Oakland Public Library, <u>https://oaklandlibrary.org/borrow-a-wifi-hotspot/</u>.

⁶⁵ "Use a Computer at the Library," Oakland Public Library, <u>https://oaklandlibrary.org/computers/</u>.

⁶⁶ "Green Computers, Connected Community," Tech Exchange, <u>https://www.techexchange.org/</u>.

⁶⁷ "Low-Cost Computer for Qualified Individuals," San Diego Futures Fund, <u>https://sdfutures.org/about-us/</u>.

Asset name	Description
Stockton-San Joaquin County Public Library	Offers free Wi-Fi and computers available for community use. ⁶⁸
OurCycle LA	Refurbishes computers and distributes them to underserved members of the Los Angeles community, as well as providing affordable internet service options. ⁶⁹
San Francisco Human Services Agency (SF Connected Program)	The SF Connected program offers no-cost digital skills and literacy classes for older adults and adults with disabilities, covering skills including social media use to help older adults avoid social isolation and managing finances online. Classes are offered in English, Spanish, Vietnamese, Russian, and Chinese. ⁷⁰
Los Angeles Public Library	Offers computer skills classes and free basic learning tools, ⁷¹ as well as Chromebook and internet hotspot bundles for long-term usage. ⁷²
iFoster	Offers free phones and low-cost computers for youth in foster care in California and provides education and support to sign up for affordability programs, helping to bridge the digital divide for youth within the child welfare system. ⁷³
Anza Electric Cooperative (AEC)	AEC received a grant from the Broadband Adoption Account in 2023 to offer digital literacy services to residents within its service area (the rural Anza Valley and surrounding areas). ⁷⁴
Napa County Public Library	The Library offers a computer lab for public use. ⁷⁵

^{68 &}quot;Computers," Stockton-San Joaquin County Public Library, https://www.ssjcpl.org/using/computers.html

⁶⁹"OurCycle LA," City of Los Angeles, <u>https://ita.lacity.gov/news/ourcycle-la</u>.

⁷⁰ "SF Connected Program," San Francisco Human Services Agency, <u>https://www.sfhsa.org/services/disability-aging-services/community-activities/sf-connected</u>.

⁷¹ "Computer Skills," Los Angeles Public Library, <u>https://www.lapl.org/collections-resources/web-resources/computer-skills</u>.

⁷² "Computer Bundles," Los Angeles Public Library, <u>https://www.lapl.org/tech2go/computer-bundles</u>.

⁷³ "Bridging the Digital Divide," iFoster, <u>https://www.ifoster.org/bridging-the-digital-divide/</u>.

⁷⁴ "CPUC Advances Broadband Access and Equity in State," CPUC news release, April 27, 2023, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-access-and-equity-in-state-2023</u>.

⁷⁵ "Public Computers," Napa County Library, <u>https://www.countyofnapa.org/678/Public-Computers</u>.

Asset name	Description
Butte County Library – Access to Technology (ATT) program	ATT offers lessons for older adults and adults with disabilities to increase digital literacy. The program provides device loans and free Wi-Fi connectivity. ⁷⁶
Palo Alto City Library	The Library lends Chromebooks and offers workshops centered on digital skills. ⁷⁷
Imperial County Office of Education (ICOE) – BorderLink	ICOE is deploying a private wireless network to connect students in the County to high-speed internet outside of schools, and providing students, teachers, and other education workers with devices to access the internet. ⁷⁸
SD Access 4 All	A comprehensive internet connectivity program that connects people in San Diego to numerous tech resources. These include laptops and mobile hotspots for checkout at libraries, low-cost computers, free individual tech support, and public Wi-Fi. ⁷⁹
Building Skills Partnership	This Los Angeles-based nonprofit, which provides workforce development and other support for property service workers, has digital literacy programs which include access to Chromebooks and other tech devices. ⁸⁰

The CPUC's **Broadband Adoption Account**⁸¹ provides grants to increase publicly available or after-school broadband access and digital inclusion, such as digital literacy training programs and public education to communities with limited broadband adoption including low-income communities, senior communities and communities facing socioeconomic barriers to broadband adoption.

In total, \$7.2 million has been awarded for 174 digital literacy projects serving 46,472 participants, \$1.1 million has been awarded for 28 broadband access projects serving 176,304 participants, and \$3.4 million has been awarded for five call center projects serving 19,836. Altogether, total funding of \$11.7 million for 207 projects in 30 counties has been provided. Additionally, \$5 million was

⁷⁶ "Access to Technology," Butte County, <u>https://www.buttecounty.net/1650/Access-to-Technology-ATT</u>.

⁷⁷ "Technology," Palo Alto City Library, <u>https://library.cityofpaloalto.org/technology/</u>.

⁷⁸ "BorderLink," ICOE, <u>https://www.icoe.org/about-icoe/borderlink</u>.

⁷⁹ "SD Access 4 All," City of San Diego, <u>https://www.sandiego.gov/sdaccess</u>.

⁸⁰ "Digital Literacy," Building Skills Partnership, <u>https://www.buildingskills.org/digital-literacy</u>.

⁸¹ "Broadband Adoption Account," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-adoption-account.</u>

provided to the California Department of Education for the provision of over 13,000 computers and hotspots to students in 12 low-income schools and school districts.

The CPUC's **Rural and Urban Regional Broadband Consortia Account** facilitates the deployment of broadband services by assisting CASF infrastructure grant applicants in the project development or grant application process or assisting broadband deployment projects related to programs created under SB 156 and AB 164. In total, \$18.7 million has been awarded (i.e., a total of 47 grants) to support 17 consortia groups formed to serve 54 counties to advance broadband access, deployment, and adoption.

The CPUC's **Broadband Public Housing Account** is aimed at connecting broadband networks that offer free broadband service that meets or exceeds State standards, as determined by the Commission for residents of low-income communities that do not have access to any broadband service provider that offers free broadband service that meets or exceeds State standards. Between 2013 and 2021, \$9.27 million has been awarded for infrastructure to support 322 projects connecting 21,268 affordable housing units across 32 counties. In addition, \$4.67 million has been awarded for adoption to provide digital literacy training to 128 locations with 29,101 residents. In 2022, the CPUC adopted programmatic changes for publicly supported housing developments as authorized by SB 156 and allocated \$15 million for the next fiscal year for this funding program.

The CPUC's **Deaf and Disabled Telecommunications Program** (DDTP) provides specialized telecommunications equipment, speech generating devices, and relay services to qualified Californians. While the program itself provides equipment that can work with both traditional telephone service and IP-based service, the program's California Relay Service is becoming less relevant as IP-based apps and texting are readily available. Additionally, some DDTP participants find affordability of broadband service to be an impediment, because DDTP does not offer a broadband subsidy (although California LifeLine does allow data plans for wireless subscribers). As such, some DDTP participants are unable to upgrade to newer IP-enabled services, such as those offered with cellular smart phones.

3.3.3 Broadband affordability

As of July 2023, a total of 2,252,562 households in the State are enrolled in the FCC's Affordable Connectivity Program (ACP),⁸² representing about 40 percent of the 5.6 million households

⁸² "ACP Enrollment and Claims Tracker," USAC, <u>https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/#enrollment-by-state</u> (accessed July 6, 2023).

estimated to be eligible.⁸³ California's enrollments also account for nearly 12 percent of nationwide ACP enrollments.⁸⁴

The goal of the CPUC's Low-Income programs, such as California LifeLine, is to meet California's universal service commitment by assuring the continued affordability and widespread availability of high-quality communications services to all Californians. The California LifeLine Program provides discounted home phone and wireless phone services to qualified households. Discounts have expanded the wireless marketplace with wireless resellers offering competitive bundling of broadband access with wireless voice services, helping consumers lower the cost of their phone bills while increasing access to services. The CPUC is also considering the impact of recent federal programs that provide broadband benefits on California's Low-Income programs; details on this pilot programs are in the table below.

The table below also identifies a sampling of ISPs' discounted service and device programs for lowincome subscribers and related broadband affordability assets in the State. These assets are available to most covered populations and historically underrepresented communities.

The California Department of Technology (CDT) is developing broadband affordability asset inventories as part of its parallel effort to develop the State's Digital Equity Plan.

Asset name	Description
California LifeLine Program	Provides a maximum monthly subsidy of \$17.90 to low-income qualified participants for wireline or mobile voice and broadband services. ⁸⁵ The program works in tandem with the federal Lifeline program, which provides a monthly subsidy of up to \$9.25 for telephone and broadband services and is administered by the Federal Communications Commission
	Two LifeLine pilot programs launched in June 2023 – one for wireline broadband services and one for wireless broadband services – enable service providers to combine the California

Table 8: Broadband affordability assets

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⁸³ "California Bipartisan Infrastructure Law Fact Sheet," White House Briefing Room, July 2022, <u>https://www.whitehouse.gov/wp-content/uploads/2022/08/California-BIL-Fact-Sheet.pdf</u>.

[&]quot;ACP Enrollment Tracker," California Broadband for All, <u>https://broadbandforall.cdt.ca.gov/affordable-connectivity-program/acp-enrollment/</u>.

⁸⁵ Administrative Letter, Notice of Specific Support Amount for 2023 (November 9, 2022), <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/lifeline/notices-for-carriers/admin-letters/ssa/ssaadministrativeletter2023.pdf</u>.

Asset name	Description
	LifeLine and federal ACP subsidies. ⁸⁶ Pilot participants may access up to \$57.15 (and up to \$127.15 on Tribal lands) of combined federal and state support for standalone broadband service or bundled broadband and voice service plans. The pilots test whether the California LifeLine can leverage federal programs to support new types of services, increase program participation, and offer higher-quality services than would otherwise have been possible.
California Teleconnect Fund	Provides a 50 percent discount on advanced communication services (including Internet access and broadband services) to qualifying K–12 schools, libraries, community colleges, government-owned hospitals/health clinics, and community-based organizations.
CPUC Rulemaking to Establish a Framework and Processes for Assessing the Affordability of Utility Service (R.18-07-006) ⁸⁷	Declares that consumers need affordable utility services, including communications services, to ensure health, safety, and participation in society; examines the impact of service charges for essential services on residential households at various socioeconomic statuses.
	Adopts minimum standards defining communications "essential service" and a mechanism for updating the standards as consumer needs and technology advances. Develops a framework for monitoring the affordability of communications essential service, including analysis of the CPUC's communications public purpose programs that support affordability and adoption and applying adopted affordability metrics to measure the effectiveness of the programs.
	CPUC to publish an Annual Affordability Report using data regarding rates and service offerings for voice and broadband reported by communications service providers, Census Bureau

⁸⁶ "CPUC Advances Broadband Affordability and Access in California," CPUC, June 8, 2023, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-affordability-and-access-in-california-</u>2023.

⁸⁷ Order Instituting Rulemaking, R.18-07-006 (Filed, July 12, 2018),

https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M218/K186/218186836.PDF; See also, CPUC Affordability Rulemaking website, https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability.

Asset name	Description
	data, and socioeconomic data including the CalEnviroScreen vulnerable communities analysis. ⁸⁸
Comcast Internet Essentials program	Comcast, an ISP, offers the Internet Essentials plan, priced at \$9.95 per month, which is available to qualifying low-income and other households in California. ⁸⁹ Comcast Internet Essentials delivers speeds up to 50 Mbps and Comcast Internet Essentials Plus delivers up to 100 Mbps for \$29.95 per month. ⁹⁰ Households that subscribe to Internet Essentials can purchase a new Dell laptop or Chromebook for \$149.99 plus tax. ⁹¹
Verizon Forward Program	The Verizon Forward Program provides an additional discount on Verizon Home Internet plans for customers enrolled in the ACP, offering Verizon 5G Home Internet at no cost where available. ⁹²
City Communications Inc./Tone Communications	Offers ACP-enrolled customers free internet service and a free device through Tone Communications Low-Cost Internet, Free Internet Essentials, and Tone Communications Tablet services. ⁹³
Cox Communications ConnectAssist and Connect2Compete plans	The ConnectAssist plan offers qualifying low-income customers 100 Mbps service for \$30 per month, or no cost with ACP subsidy. The Connect2Compete plan offers qualifying low-income families with at least one K-12 student 100 Mbps service for \$9.95 per month, or no cost with ACP subsidy. Other discounted plans are also available to those who may not qualify for ConnectAssist and Connect2Compete. ⁹⁴

⁹¹ Comcast, "Low-Cost Computer," <u>https://internetessentials.com/low-cost-computer</u>.

⁸⁸ CalEPA CalEnviroScreen, <u>https://oehha.ca.gov/calenviroscreen</u>.

⁸⁹ Comcast, application for Internet Essentials plan, <u>https://apply.internetessentials.com/</u>.

⁹⁰ Comcast, "Internet Essentials," <u>https://www.xfinity.com/learn/internet-service/internet-essentials</u>.

⁹² "Free Internet with the Verizon Forward Program and ACP," Verizon, <u>https://www.verizon.com/home/free-verizon-internet/</u>.

⁹³ "Home," City Communications, Inc., <u>https://citycom.co/</u>.

⁹⁴ "Get Low-Cost Internet Options As Low As Free," Cox Communications, <u>https://www.cox.com/residential/internet/low-cost-internet-plans.html</u>.

Asset name	Description	
Mediacom LLC Connect2Compete Plus	Connect2Compete Plus (C2C+) offers 100 Mbps download speeds for \$30 per month, or \$0 with ACP subsidy and includes a modern in-home Wi-Fi, unlimited data, and self-installation. ⁹⁵	
Spectrum/Charter	Spectrum Internet Assist provides low-income households with discounted services and a free modem for approximately \$30 a month and, when combined with the ACP program discounts, can provide no cost broadband services. ⁹⁶	
AT&T Access	AT&T Access offers up to 100 Mbps for \$0 with the ACP subsidy. ⁹⁷	
Frontier Communications	The Frontier Fundamental Internet plan offers 12 Mbps service for \$19.99 or \$0 with ACP subsidy. ⁹⁸	
Fresno State Connect	The Fresno State Connect Initiative conducts outreach to rural communities in the San Joaquin Valley about programs that can offer low-cost internet services. ⁹⁹	
United Ways of California	The United Ways of California provide assistance with finding and enrolling in low-cost internet services and the ACP. ¹⁰⁰	
Education SuperHighway – Connect San Francisco	This national nonprofit, based in San Francisco, works to close the digital divide through a series of initiatives focused on bridging the affordability gap for unconnected households—including ACP outreach campaigns in partnership with State and local governments. ¹⁰¹ The organization partnered with the San Francisco Mayor's Office of Housing and Community Development (MOHCD) and over two dozen community organizations to	

⁹⁵ "Mediacom is proud to participate in the Affordable Connectivity Program (ACP) and help more people connect with high-speed internet," Mediacom Cable, <u>https://mediacomcable.com/acp/</u>.

⁹⁶ Spectrum Internet Assist, https://www.spectrum.com/internet/spectrum-internet-assist.

⁹⁷ "Access from AT&T," AT&T, <u>https://www.att.com/internet/access/</u>.

⁹⁸ "Fundamental Internet," Frontier Communications, <u>https://frontier.com/fundamental-internet</u>.

⁹⁹ "Fresno State Connect Initiative," Fresno State,

https://academics.fresnostate.edu/oced/initiatives/connectinitiative.html.

¹⁰⁰ "Get Connected to a Low-Cost Internet Program," United Ways of California, <u>https://broadband.unitedwaysca.org/resources</u>.

¹⁰¹ EducationSuperHighway, <u>https://www.educationsuperhighway.org/</u>.

Asset name	Description
	launch a local ACP enrollment initiative ("Connect San Francisco") in May 2023. ¹⁰²
Foundation for California Community Colleges – California Connects	Through a partnership with T-Mobile, students, staff, and faculty of the California community colleges can purchase internet service via a 4G LTE mobile hotspot for \$19.99 per month with a one-time device cost of \$99; a cap of 30 GB of data per month; and no contract. ^{103, 104}
Affordable Service Program finder ¹⁰⁵	 The California Broadband for All poral includes an affordability portal to help Californians find: Low-cost internet service Computer offers Digital skills training (like computer and internet basics)

3.3.4 Broadband access

The following table identifies examples of public Wi-Fi networks, cellular connectivity (mobile broadband), and open-access middle-mile networks in the State. These assets are available to most covered populations and historically underrepresented communities. Additional broadband access assets are included in Appendix A.

Table 9: Broadband access assets

Asset name	Description
AT&T cellular service (mobile	AT&T delivers cellular connectivity (mobile broadband)
broadband)	throughout most of California
T-Mobile cellular service	AT&T delivers cellular connectivity (mobile broadband)
(mobile broadband)	throughout most of California

¹⁰² "Mayor's Office of Housing and Community Development Launches Citywide Initiative to Increase Affordable Connectivity Adoption Program," City of San Francisco news release, May 11, 2023, <u>https://sf.gov/news/mayors-office-housing-and-community-development-launches-citywide-initiative-increase</u>.

¹⁰³ "California Connects," Foundation for California Community Colleges, <u>https://foundationccc.org/our-</u>work/system-support/providing-affordable-products-and-technology-to-colleges-and-students/california-connects/.

¹⁰⁴ "CalConnects with CollegeBuys.org," <u>https://shop.collegebuys.org/articles/calconnects_landing.htm</u>.

¹⁰⁵ "Affordable service programs," California Broadband for All, <u>https://broadbandforall.cdt.ca.gov/affordable-service-programs/</u>.

Asset name	Description
Verizon Wireless cellular	AT&T delivers cellular connectivity (mobile broadband)
service (mobile broadband)	throughout most of California
California Middle-Mile	The State is constructing a statewide open access middle-mile
Broadband Network	network that will support last-mile services, with a focus on areas that are unserved
Free public Wi-Fi San Diego	The SD Access 4 All program offers open public Wi-Fi access at over 300 locations in the City. ¹⁰⁶
Angeleno Connectivity Trust	The Angeleno Connectivity Trust is offering up to 18,000 free Wi- Fi hotspots to K 12 students "experiencing homelessness in foster
	care at-risk youth students with a disability and those who may
	have dropped out of school or [are] at risk of dropping out due to
	lack of connectivity." ¹⁰⁷
Sacramento Park Wi-Fi	The City of Sacramento provides free Wi-Fi internet access at 27
	parks throughout the City from sunrise to sunset. ¹⁰⁸
San José free public Wi-Fi	The City is offering 24/7 high-speed public Wi-Fi service for
	downtown areas, all City libraries, select community centers, and
	some Near East Side Union High School District attendance areas. ¹⁰⁹
Nevada County free Wi-Fi	The County offers free Wi-Fi access at public libraries, the County
	government center, courthouses, and other locations. ¹¹⁰
San Mateo County Wi-Fi	The County's public Wi-Fi program offers internet access at "park
Program	& connect," indoor, and outdoor locations. ¹¹¹
LA County Library Wi-Fi	Unlimited free Wi-Fi access is offered at all library locations and parking lots. ¹¹²

¹⁰⁶ "Open Public Wi-Fi in San Diego," SD Access 4 All, <u>https://www.sandiego.gov/sdaccess</u>.

¹⁰⁷ "Angeleno Connectivity Trust Wi-Fi Hotspot For K-12 Students," Los Angeles, <u>https://getconnectedlosangeles.lacity.org/</u>.

¹⁰⁸ "City Of Sacramento Park Wi-Fi," City of Sacramento, <u>https://www.cityofsacramento.org/WiFi</u>.

¹⁰⁹ "Free Public Wi-Fi Access," City of San José, <u>https://www.sanjoseca.gov/residents/digital-inclusion/borrow-tech-devices-free-public-wi-fi</u>

¹¹⁰ "Free Wi-Fi Locations," Nevada County, <u>https://nevadacountyca.gov/1500/Free-Wi-Fi-Locations</u>.

¹¹¹ "San Mateo County Digital Equity Portal," San Mateo County, <u>https://www.smcgov.org/smc-digital-equity-portal</u>.

¹¹² "Unlimited Access," LA County Library, <u>https://lacountylibrary.org/wifi/</u>.

Asset name	Description
City of Gonzales – Internet for All	The City partnered with T-Mobile to give away free 4G LTE Wi-Fi hotspots to residents as a part of the Internet for All initiative. Hotspots would offer unlimited high-speed internet access for up to 12 connections at once. ¹¹³
City of Stockton digital equity program	The City utilized ARPA funds to purchase and distribute 1,550 Chromebooks, hotspots, and 500 tablets. Three years of prepaid internet service were included with devices. ¹¹⁴
City of Los Angeles free Wi-Fi	The City is offering free public Wi-Fi access in six City parks and downtown LA. ¹¹⁵
OAK Wi-Fi	The City of Oakland provides free internet in areas of East and West Oakland, Uptown, and Downtown. ¹¹⁶
Los Angeles Unified School District (LAUSD) – All Families Connected	LAUSD launched a program called "All Families Connected" to ensure students have reliable broadband access at school and home. Parents/guardians complete a survey of their device and connectivity needs, and LAUSD works with service providers to arrange a solution for home internet service at no cost to the family. ¹¹⁷
City of Watsonville public library Wi-Fi	The City's public library offers free internet access for cardholders above the age of 18 through mobile hotspots. Mobile hotspots can be borrowed for three weeks. ¹¹⁸
Los Angeles Public Library – Tech2go	Through the Tech2go program, individuals without broadband access can check out mobile hotspots from the Los Angeles Public Library. ¹¹⁹

¹¹³ "Internet For All," City of Gonzales, <u>https://gonzalesca.gov/residents/internet-all</u>.

¹¹⁴ "Digital Equity Project," City of Stockton,

https://www.stocktonca.gov/government/departments/communityServices/digitalequityproject.html.

¹¹⁵ "Free Wi-Fi Access In Los Angeles," Discover Los Angeles, <u>https://www.discoverlosangeles.com/things-to-do/free-wi-fi-access-in-los-angeles</u>.

¹¹⁶ City of Oakland, <u>https://www.oaklandca.gov/topics/oakwifi</u>.

¹¹⁷ "LAUSD is providing free in-home internet access to families in need," LAUSD Unified, <u>https://www.lausd.org/site/default.aspx?PageType=3&ModuleInstanceID=64777&ViewID=7b97f7ed-8e5e-4120-848f-a8b4987d588f&RenderLoc=0&FlexDataID=118508&PageID=16569.</u>

¹¹⁸ "WiFi Hotspots," City of Watsonville Public Library, <u>https://www.cityofwatsonville.org/2139/WiFi-Hotspots</u>.

¹¹⁹ Tech2go, Los Angeles Public Library, <u>https://www.lapl.org/tech2go/mobile-hotspots</u>.

Asset name	Description
Cruzio Internet, Community	A partnership between Cruzio Internet and the Community
Foundation Santa Cruz	Foundation of Santa Cruz County with the stated goal of delivering
County – Equal Access Santa	broadband access to "every family in the Santa Cruz community,
Cruz County	regardless of income level." ¹²⁰ The ISP currently has several
	deployment projects underway in the County. ¹²¹

3.3.5 Digital equity

The following table identifies representative digital equity assets in the State of California, including workforce development training and employment services related to broadband adoption; technical assistance programs aimed at supporting digital inclusion; and partnerships and coalitions that work toward digital equity. These assets are available to all covered populations and underrepresented communities. Additional assets are included in Appendix A.

The California Department of Technology (CDT) is also developing digital equity asset inventories as part of its parallel effort to develop the State's Digital Equity Plan.

Asset name	Description
Digital Nest	Technology learning center for youth that provides mentoring, classes, and opportunities for digital skill development. Locations in Watsonville, Salinas, and Gilroy; Modesto and Stockton to come. ¹²²
California State Library CAreer Pathways	A variety of workforce development training platforms for all Californians through their public libraries and available to jobseekers and learners of all levels
California Community Foundation (CCF)	CCF's Digital Equity Initiative, centered around community education and empowerment, strives to build awareness about digital access inequity within Los Angeles County's historically marginalized minority communities as a springboard for future active action. ¹²³

Table 10: Digital equity assets

¹²⁰ "Equal Access Santa Cruz County," Equal Access Santa Cruz, <u>https://equalaccesssantacruz.com/</u>.

¹²¹ "Current Projects," Equal Access Santa Cruz, <u>https://equalaccesssantacruz.com/current-projects/</u>.

¹²² "Impact," Digital Nest, <u>https://digitalnest.org/digital-nest-impact/</u>.

¹²³ "Digital Equity Initiative," California Community Foundation, <u>https://www.calfund.org/digital-equity-initiative/</u>.

Asset name	Description
California Alliance for Digital Equity (CADE)	CADE is a statewide group of advocates that push for public policy to enhance the state of digital equity in California through means such as device acquisition, improved digital literacy, and broadband access. ¹²⁴
LA Digital Equity Action League (LA DEAL) Santa Clara County Office of	The LA DEAL consortium aims to "address broadband access in a systemic and equitable way through true community representation and a strong infrastructure of civic leaders representing business, education, nonprofits, and government, so that both unserved and underserved communities have equal access to affordable, reliable, and high-speed internet service, and the devices and training to optimize their use." ¹²⁵ Beginning in April 2020, SCCOE launched an initiative to bridge
Education (SCCOE)	the digital divide amongst students and their families that raised \$14.5 million in funding to provide 20,800 computing devices; 14,200 hotspots; and internet service to 16,000 students. Support was provided by funding and in-kind contributions by local governments, ISPs, businesses, community organizations, and philanthropic organizations. ¹²⁶
Dev/Mission	Youth technology training program that connects under-resourced young adults with career opportunities in the tech industry. The Community Technology Associate (CTA) program provides affordable housing communities in San Francisco with free tech support and digital literacy training provided by CTA interns, who visit locations in partnered neighborhoods to teach individuals one-on-one. ¹²⁷
San José Digital Inclusion Partnership	\$18 million cross-sector fund that will support grants with the goal of closing the City's digital divide over the next 10 years. The program aims to provide 50,000 San José households with universal device access and connectivity, as well as resources to

¹²⁴ "About Us," California Alliance for Digital Equity, <u>https://cade.nextgenpolicy.org/home/#about</u>.

¹²⁵ "About Us," LA DEAL, <u>https://ladeal.org/misson/</u>.

¹²⁶ "Digital Equity-Bridging the Digital Divide," Santa Clara County Office of Education, <u>https://www.sccoe.org/covid-19/digital-divide/Pages/digital-equity.aspx</u>.

¹²⁷ "Community Technology Associate," Dev/Mission, <u>https://devmission.org/cta/</u>.

Asset name	Description
	advance digital literacy skills. The City engaged CETF to administer grant-making. ¹²⁸
ClosingTheDivide	Nonprofit organization based in the Bay Area focused on bringing technological tools to under-resourced communities, including building computer labs and donating devices. The organization strives to combat the environmental effects of device production by reducing E-waste and offering device repair classes, and also offers various workshops to promote and expand digital literacy. ¹²⁹
Sourcewise – Connections,	Offered in partnership with the California Department of Aging,
(CLLAT) Drogram	the CHAT program aims to reduce social isolation of older adults who live along by providing access to a logner iPad and tailored
(CHAT) Program	training through one-on-one support or virtual learning sessions. ¹³⁰
Capital Region Coalition for	When Sacramento Public Library hosted the Sacramento Digital
Digital Inclusion	Inclusion Summit in January 2019, the Coalition was formed.
	Partnering with a variety of businesses/organizations, it works to
	increase digital access through affordable devices and access, as well as digital literacy training. In addition, its website provides a
	portal with an accessible and comprehensive list of resources for
	digital inclusion. ¹³¹
California State Library and	Connects Californians with Digital Navigators who can help in
Southern California Library	many areas of tech access and affordability, such as locating low-
Cooperative (SCLC) –	cost internet and devices, signing up for digital skills classes, and
Connected California	more. Services are free and available in English and Spanish. ^{152, 155}

3.4 Needs and gaps assessment

¹²⁸ "About," San José Digital Inclusion Fund, <u>https://www.sjdigitalinclusion.org/about</u>.

¹²⁹ ClosingTheDivide, <u>https://www.closingthedivide.foundation/</u>.

¹³⁰ "Digital Inclusion; Connections, Health, Aging, and Technology Program," Sourcewise, <u>https://mysourcewise.com/programs-services/digital-inclusion/</u>.

¹³¹ "Our Story," Capital Region Coalition for Digital Inclusion, <u>https://digitalinclusionsac.org/our-story/</u>.

¹³² "Welcome to Connected California," Connected California, <u>https://connectedca.org/</u>

¹³³ "Connected California Program Launches to Bridge the Digital Divide," SCLC news release, PR Newswire, December 8, 2022, <u>https://www.prnewswire.com/news-releases/connected-california-program-launches-to-bridge-the-digital-divide-301698916.html.</u>

This section describes the gaps between the current state of broadband and digital inclusion and the needs of residents and community anchor institutions in California, as documented through rigorous and comprehensive data collection and stakeholder outreach efforts.

The needs and gap assessment will be further described in the State's Digital Equity Plan, which is in progress in a parallel effort led by the California Department of Technology (CDT).

This section addresses item 8 in the Five-Year Action Plan requirements: Broadband availability and adoption data. This section also addresses item 9 in the Five-Year Action Plan requirements: Broadband service needs and gaps.

The needs assessment documented in this Plan reflects the CPUC's evaluation of the range of data sources identified by NTIA as well as data and insights gathered through the comprehensive stakeholder engagement process described in Section 5. The CPUC and CDT will also continue their stakeholder engagement efforts on an ongoing basis to assess relative needs after submittal of this Plan.

3.4.1 Broadband deployment

The CPUC and the State Legislature have identified a lack of sufficient access to affordable, nondiscriminatory middle-mile network services as a gap in broadband deployment in California. SB 156 allocated \$3.25 billion in funding for the State to construct the Middle-Mile Broadband Network (MMBN), an open access statewide middle-mile network that will support last-mile deployment, with a focus on unserved areas of the State. This investment is fundamentally designed to deliver open access middle-mile fiber within proximity to the State's unserved locations—thus minimizing the cost of last-mile service to connect those addresses.

SB 156 defines an open access network as one that provides "equal non-discriminatory access to eligible entities on a technology and competitively neutral basis, regardless of whether the entity is privately or publicly owned."¹³⁴ Benefits of an open access model can include reduced transport costs, increased reliability, greater access to interconnection points, and opportunities for innovative business strategies¹³⁵ for last-mile providers, anchor institutions, and Tribal entities in the State.

¹³⁴ SB 156 (2021), Section 3, (Govt. Code Sec. 11549.50(e)); See,

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB156.

¹³⁵ "Broadband Factors for Last-Mile Connectivity," prepared by CTC Technology and Energy for the CPUC, December 2021, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-</u> <u>division/documents/broadband-implementation-for-california/caseworkers/ctc-report-to-cpuc---middle-mile-</u> <u>broadband-factors-for-last-mile-connectivity---20211228.pdf</u>.

In a November 2021 letter to CDT evaluating initial MMBN project locations, the CPUC President at the time, Marybel Batjer, noted that "the lack of available middle-mile broadband infrastructure has been a major barrier in connecting California's unserved and underserved communities."¹³⁶

Per the establishing statute, the CPUC was directed to identify locations for the network 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 Commission was also directed to identify priority locations that can be "built expeditiously," or have "no known middle-mile network access," are "underserved by middle-mile networks," or lack "sufficient capacity to meet future middle-mile needs."

Using the statutory criteria, the CPUC conducted an extensive analysis of the gaps in middle-mile access across the State and gathered detailed public comment, mapping data, financial analysis, and affordability data to recommend a comprehensive set of recommended routes and locations for open-access middle-mile deployment. Of these, the CPUC prioritized locations that enable last-mile connections to unserved residences¹³⁷—and also prioritized entities without "sufficient high-bandwidth connections" that include certain community anchor institutions and Tribal lands.¹³⁸

To support transparency and engagement of local and State stakeholders, the CPUC has crafted an information and resource portal within the State's MMBI portal that contains the CPUC's analyses, public comment, and data used to identify the locations.¹³⁹ This information continues to serve as the groundwork for efforts by multiple State agencies to support the MMBI process.

As the State contemplates the last-mile broadband buildout in this Plan, another key need is the broadband deployment workforce. The available data appear to indicate that California has at best an average level of workers with relevant skills.

A March 2023 report from the Public Policy Institute of California discusses labor shortages as one potential obstacle and cause for delays of broadband deployment projects in the State; it cites an Association of General Contractors' survey that finds 91 percent of construction firms have a hard time finding workers.¹⁴⁰ Labor shortages for broadband deployment projects are particularly

¹³⁶ Marybel Batjer, President, CPUC, to Amy Tong, Director and State Chief Information Officer, California Department of Technology; November 16, 2021; <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/broadband-implementation-for-california/broadband-middle-mile-initiative---phase-1---cpuc-transmittal-letter-11-16-21.pdf</u>.

¹³⁷ Defined by SB 156 as those that lack service of 25 Mbps downstream, 3 Mbps upstream.

¹³⁸ SB 156 (2021), Section 3, (Govt. Code Sec. 11549.54(a-d); See, <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=2021202208B156</u>.

¹³⁹ Broadband for All, Middle-Mile Broadband Initiative, CPUC Data & Analysis, <u>https://middle-mile-broadband-initiative.cdt.ca.gov/pages/data-and-analysis</u>.

¹⁴⁰ "Achieving Universal Broadband in California," Public Policy Institute of California (March 2023), page 21, https://www.ppic.org/publication/achieving-universal-broadband-in-california/.

pronounced on Tribal lands as Tribal governments in California compete for qualified workers with other projects being planned in the State.¹⁴¹

Data from sources such as the Bureau of Labor Statistics show that California has an average number of telecommunications deployment professionals given the size of California's population.

For example, according to the Bureau of Labor Statistics, California employs the second largest quantity of telecommunications installers and repairers in the U.S. (after Texas), with 12,700. However, the location quotient of telecommunications installers and repairers in California is 0.99, meaning that the ratio of the area concentration of occupational employment to the national average concentration is 99 percent, or almost exactly average.¹⁴²

While imperfect, these data suggest that California will need to train additional telecommunications workers as this Plan increases the pace of last-mile broadband deployment.

3.4.2 Broadband adoption

According to the most recent NTIA data (November 2021), 76.4 percent of California residents use internet at home¹⁴³ and 81.2 percent of residents use internet at any location.¹⁴⁴

The California Department of Technology (CDT) is developing broadband adoption data and insights as part of its parallel effort to develop the State's Digital Equity Plan.

3.4.3 Broadband affordability

Affordability is a barrier to broadband adoption for some California residents. The map below illustrates median household income across the State, which highlights areas where the barrier of broadband affordability may be most pronounced.

The CPUC's ongoing effort to collect data and identify solutions in this regard are represented by the CPUC Rulemaking to Establish a Framework and Processes for Assessing the Affordability of Utility Service (R.18-07-006).

The Affordability rulemaking declares that consumers need affordable utility services, including communications services, to ensure health, safety, and participation in society; examines the impact

¹⁴¹ "After federal investment, supply chain jams and labor shortages still hinder tribal broadband access," Marketplace (April 6, 2023) Comments by Southern California Tribal Chairmen's Association broadband advisor. https://www.marketplace.org/2023/04/06/tribal-broadband-access-supply-chain-jams-labor-shortages/.

¹⁴² "Occupational Employment and Wages, May 2022: 49-9052 Telecommunications Line Installers and Repairers," U.S. Bureau of Labor Statistics, last modified April 25, 2023, <u>https://www.bls.gov/oes/current/oes499052.htm</u>.

¹⁴³ "Digital Nation Data Explorer: Internet Use at Home," NTIA, November 2021 data, <u>https://ntia.gov/other-publication/2022/digital-nation-data-explorer</u>.

¹⁴⁴ "Digital Nation Data Explorer: Internet Use (Any Location)," NTIA, November 2021 data, <u>https://ntia.gov/other-publication/2022/digital-nation-data-explorer</u>.

of service charges for essential services on residential households at various socioeconomic statuses. It adopts minimum standards defining communications "essential service" and a mechanism for updating the standards as consumer needs and technology advances. It also develops a framework for monitoring the affordability of communications essential service, including analysis of the CPUC's communications public purpose programs that support affordability and adoption and applying adopted affordability metrics to measure the effectiveness of the programs.

Analysis conducted for this Plan found that discounted broadband services and subsidy programs are available to many California residents but there is low awareness of and participation in these programs.





About 40 percent of eligible households in the State are enrolled in the FCC's Affordable Connectivity Program (ACP)¹⁴⁵—meaning that many more households could benefit from the program.

Table 11: Overview of California household enrollment in ACP

	State of California
Total enrollment (households)	2,252,562
Estimated eligible households	5,600,000
Portion of eligible households enrolled	40%

The California Department of Technology (CDT) is also developing broadband affordability data and insights as part of its parallel effort to develop the State's Digital Equity Plan; the CDT's effort is anticipated to include details on Tribal participation in ACP.

3.4.4 Broadband access

Broadband access is available throughout most of the State (see Section 3.3.1), including through wired infrastructure, public Wi-Fi, and cellular connectivity. Analysis indicates that many of the remaining unserved and underserved locations throughout the State are some of the most difficult and expensive to serve.

By analyzing data on service availability using California's definition for unserved, CostQuest determined there are 996,302 unserved locations lacking access to broadband speeds of at least 25 Megabits per second (Mbps) downstream and 3 Mbps upstream through a reliable wireline connection.¹⁴⁶

The following three maps illustrate potential broadband access in the State using the FCC's current Broadband Data Collection (BDC) data. (The percentages indicated also do not reflect State adjustments or the potential impact of previously awarded federal grants, which are illustrated in Figure 6, below.)

¹⁴⁵ Enrollment data from "ACP Enrollment and Claims Tracker," USAC, <u>https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/#enrollment-by-state</u> (accessed July 6, 2023); eligibility estimate per "California Bipartisan Infrastructure Law Fact Sheet," White House Briefing Room, July 2022, <u>https://www.whitehouse.gov/wp-content/uploads/2022/08/California-BIL-Fact-Sheet.pdf</u>.

¹⁴⁶ "California Broadband Investment Model – Last Mile Funding Analysis: Process Overview and Methods," CostQuest Associates, April 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-</u> <u>division/documents/broadband-implementation-for-california/ffa-webpages/ca-broadband-investment-</u> <u>model_04212023.pdf</u>.





CALIFORNIA PUBLIC UTILITIES COMMISSION







Figure 5: Map of potential unserved locations



Figure 6: Map of areas covered by federal grant awards

3.4.5 Digital equity

Stakeholder engagement efforts and other data collected by the CPUC and CDT for this Plan and other Broadband for All efforts indicate that California's digital equity needs include access to affordable broadband services and increased enrollment in broadband service subsidy programs, device access, and digital literacy training.

The California Department of Technology (CDT) is also developing data and insights as part of its parallel effort to develop the State's Digital Equity Plan. For example, Tribal communities may lack internet access because of a need for middle-mile network connections. According to CENIC, nearly 20 percent of California's federally recognized Tribes connect to existing CENIC and Pacific Wave middle-mile networks, but more Tribal communities will have access to middle-mile networks once MMBN is complete.¹⁴⁷ Tribal broadband gaps are not unique to California: FCC data from 2019 show that over 99 percent of housing units in U.S. urban areas have access to broadband service, but only 65 percent of housing units on rural American Indian and Alaska Native (AI/AN) lands have the same level of access, according to the U.S. Bureau of Indian Affairs (BIA).¹⁴⁸

The CPUC expects the MMBN project (a middle-mile initiative that is not funded by BEAD) to positively impact Tribal communities. CDT conducted Tribal engagement in February 2023 to explain the MMBN project.¹⁴⁹

The CPUC is also working to educate Tribal communities and support their broadband initiatives. Comments received as part of the CPUC's open proceeding reinforced the understanding that the digital divide is "particularly acute" for Tribal Nations and that lack of broadband access has been an impediment to Tribal members.¹⁵⁰ The CPUC maintains a Tribal broadband support staff because of a recognized need. The staff includes a dedicated CPUC Tribal Advisor and a California Tribal Liaison as well as ad hoc surge staffing from the CPUC Broadband Caseworker Team.¹⁵¹

The California Department of Technology (CDT) is also developing digital equity data and insights as part of its parallel effort to develop the State's Digital Equity Plan.

¹⁴⁷ "Middle Mile Network Access for California Tribes," CENIC, <u>https://cenic.org/initiatives/broadband-for-california-tribes</u>. MMBI is administered by GOLDENSTATENET, a California LLC. "About," GOLDENSTATENET, <u>https://goldenstatenet.org/about</u>.

¹⁴⁸ "Expanding Broadband Access," BIA, <u>https://www.bia.gov/service/infrastructure/expanding-broadband-access</u>.

¹⁴⁹ "MMBI Regional Tribal Engagement Series: (Session 3: Districts 5, 6, 9, & 10)," CDT, February 2, 2023, <u>https://cdt.ca.gov/wp-content/uploads/2023/02/regional-tribal-engagement-series-session-3_2-2-23.pdf</u>. Caltrans maintains a Native American Cultural Studies Branch to facilitate Tribal heritage preservation efforts for transportation project development throughout California. "Native American Cultural Studies," Caltrans, <u>https://dot.ca.gov/programs/environmental-analysis/cultural-studies/native-american-cultural-studies</u>.

¹⁵⁰ Yurok Tribe (p. 5), <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522560.PDF</u>.

¹⁵¹ "Broadband Resources for Tribes in California," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/broadband-implementation-for-california/v2-tribal-broadband-resources</u>.

4. Obstacles or barriers

This section describes known or potential obstacles or barriers related to broadband deployment and digital equity—which might impede the successful implementation of California's Broadband for All Action Plan and the State's BEAD program.

This Five-Year Action Plan represents a needs assessment that will guide the State's Initial Proposal. Through the process of developing this Plan (including the CPUC's open rulemaking), the CPUC has identified potential obstacles or barriers that it will seek to mitigate. Successfully working through these potential barriers will be critical to achieving the State's vision of universal broadband service and digital equity as established in the California Broadband for All Action Plan.

In addition to the potential issues described below, the CPUC notes the following concerns about BEAD Plan implementation and, more generally, the equitable deployment of broadband infrastructure in the State:

Funding availability: The CPUC estimates it has approximately \$4 billion in funding available (including NTIA's BEAD allocation and funds allocated by the State Legislature); while significant, this amount will not enable deployment of broadband infrastructure to all unserved locations in the State (see Section 5.6). The CPUC also will not have enough funding to address the needs of underserved locations or community anchor institutions (CAI) that lack 1 gigabit service.

Timeline: Given California's large size, it may be a challenge for some of the CPUC's BEADfunded subgrantees to deploy broadband infrastructure within the required timeline.

Capacity to deploy broadband: Given the scope of infrastructure buildout contemplated by this Plan, the CPUC recognizes that developing sufficient capacity may be a challenge for some communities. Providing support to potential subgrantees, including small ISPs, localities, and other entities will be an important step to building sufficient capacity. The CPUC's Local Agency Technical Assistance program may help mitigate this challenge by supporting tribes and local agencies in their efforts to expand broadband service to unserved and underserved Californians. Established by the CPUC according to Senate Bill 156, the program has a \$50 million budget for grants including a \$5 million set-aside for tribes. Technical assistance funding is for planning work that will facilitate high-speed broadband infrastructure projects.

4.1 Legislative and regulatory barriers

The Governor, the State Legislature, the CPUC, and its many partners in State government are committed to Broadband for All. Thus, while legislative and regulatory processes could have an impact on implementation of broadband infrastructure deployment, the CPUC is confident that these issues will not pose a barrier.

To that point, the CPUC recognizes the importance of efforts to streamline State and local permitting in such a way as to protect the State's interests while also ensuring effective and efficient broadband construction permitting.¹⁵² Given the size of the State and the multiple permitting entities form which grantees will need to gain approval, permitting for infrastructure projects will represent a major challenge. Indeed, the Commission requested comment on this issue in the CPUC's open rulemaking proceeding and public comments from service providers echo this point and urge the CPUC to address this issue directly in its Initial Proposal by adopting strategies that further streamline access to utility poles and State-owned right-of-way.¹⁵³

The CPUC partnered with the California Governor's Office of Business and Economic Development, the California Department of Technology, and the California Emerging Technology Fund to produce the "State of California Local Permitting Playbook" in 2022.¹⁵⁴

That guide also benefited from the engagement and collaboration of a range of local and regional entities across the State—reinforcing the statewide commitment to streamlining permitting for the benefit of broadband deployment. Those partners included Rural County Representatives of California (RCRC), California State Association of Counties (CSAC), League of California Cities (Cal Cities), California Forward (CA FWD), and California's regional Metropolitan Planning Organizations (MPO), including Southern California Association of Governments (SCAG) and San Diego Association of Governments (SANDAG).

In addition, to meet objectives of the Broadband For All Action Plan goal of broadband availability, the California State Transportation Agency has implemented a Dig Smart policy to install conduit as part of any appropriate and feasible State-funded transportation project in strategic corridors, as well as improving State encroachment permitting processes and rights-of-way management, as needs or opportunities are identified, to accelerate broadband deployment.¹⁵⁵ Additionally, the State Legislature has directed all State agencies to work in cooperation to expedite delivery and permitting of the MMBN and has developed a streamlined process for procurement and State contracting to support MMBN and the State's related broadband policy goals.¹⁵⁶

The State Legislature is also looking to address potential obstacles and barriers and create a framework for facilitating broadband infrastructure deployment projects that fits within the State's broader public policy goals. As an example, the Legislature is considering a bill that will allow the

¹⁵² Lindsay McKenzie, "NTIA chief says states have 'homework assignments' on broadband permits," *State Scoop*, March 16, 2023, <u>https://statescoop.com/alan-davidson-ntia-state-broadband-permits/</u>.

¹⁵³ California Broadband and Video Association (pp. 59-61), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522558.PDF.

¹⁵⁴ "State of California Local Permitting Playbook," August 2022, <u>https://broadbandforall.cdt.ca.gov/wp-content/uploads/sites/19/2022/09/California-Local-Jurisdiction-Permitting-Playbook-1.pdf</u>.

¹⁵⁵ "Action Plan progress tracker," California Broadband for All, <u>https://broadbandforall.cdt.ca.gov/progress-tracker/</u>.

¹⁵⁶ California Government Code §§11549.55, 11549.56 (SB 156).

lease of real property under the jurisdiction of a state agency or department, with only certain exceptions for transportation, parks, and conservation land, at an amount less than fair market value for last mile and middle mile broadband network projects, as long as the CPUC or CDT makes a written finding that such lease will serve a public benefit.¹⁵⁷

4.2 Labor shortages

National experts report the pool of skilled workers for broadband deployment is smaller than necessary for the broadband projects that BEAD will fund nationwide.¹⁵⁸ As described elsewhere in this Plan, the State plans to use new and existing relationships to promote workforce development efforts and to use its grant program to encourage service providers to hire and train employees as part of their BEAD-funded projects. Workforce development efforts supported by Digital Equity Act funding might further enhance BEAD projects by providing a larger, more diverse pool of talent, which is also an acknowledged need and priority.

The CPUC has received public feedback that equitable workforce development, fair labor practices and high-quality job opportunities are a significant obstacle to widely deploying broadband networks and support underrepresented communities and that the CPUC should place high priority on grant applications that pledge to dedicated resources from their project to address these issues through quantifiable public interest benefits, including local hiring, apprenticeship programs and prevailing wage commitments.¹⁵⁹

Labor groups specifically weighed in that long-term wage stagnation in the telecommunications industry has been more pronounced than it has on the economy as a whole, creating barriers to hiring and retaining skilled workers and slowing growth in the labor market for this sector.¹⁶⁰ Comments from labor groups also suggest that, currently, there are limited opportunities for workforce development and training, creating safety issues and services quality issues, as well as lost opportunities for advancement and growth. The identification of these barriers result in recommendations by these groups for the CPUC to prioritize labor considerations in program

¹⁵⁷ California State Legislature, SB 387 (Dodd, 2023), https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB387.

¹⁵⁸ See, for example: Will Feuer, "The U.S.'s \$42.5 Billion High-Speed Internet Plan Hits a Snag: A Worker Shortage," *Wall Street Journal*, April 23, 2023, <u>https://www.benton.org/headlines/us%E2%80%99s-425-billion-high-speed-internet-plan-hits-snag-worker-shortage</u>.

¹⁵⁹ County of Los Angeles (p.3). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K169/506169960.PDF; Joint Advocates (Electronic Frontier Foundation and Center for Accessible Technology) (pgs. 7, 11, 20). https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523096.PDF.

¹⁶⁰ Communications Workers of America District 9, Jobs with Justice San Francisco, Labor Network for Sustainability, United Steelworkers District 12, United Steelworkers Local 675, (pg. 3-8, 10-11), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522994.PDF.

design including fair and transparent labor practices, workforce development programs and training.¹⁶¹

Public comments also acknowledge that the CPUC has had a longstanding commitment to collect data and monitor utilities' diverse contracting and supplier practices and urges the Commission to expand this consideration to other workforce practices as it reviews requests for project funding.¹⁶² Comments also address specific considerations related to labor shortages on Tribal lands, and the goals and objectives for equitable workforce development, training, and local hiring requirements for Tribal members and specifically supported by Tribal governments.¹⁶³

A March 2023 report from the Public Policy Institute of California discusses labor shortages as one potential obstacle and cause for delays of broadband deployment projects in the State; it cites an Association of General Contractors' survey that finds 91 percent of construction firms have a hard time finding workers.¹⁶⁴ Labor shortages for broadband deployment projects are particularly pronounced on Tribal lands as Tribal governments in California compete for qualified workers with other projects being planned in the State.¹⁶⁵

4.3 Supply chain issues and materials availability

The extensive funding allocated to broadband infrastructure deployment by Congress—and the current and planned investments by state and local governments and ISPs nationwide¹⁶⁶—has caused a spike in demand for labor and materials. This increased demand compounded an already disrupted market still recovering from Covid-19 caused factory closures and other issues in the supply chain.

Supply chain challenges in general reached unprecedented levels during the Covid-19 pandemic and have not disappeared. "Given that there are multiple new risk factors on the horizon, it is hard to envision trust in the system being restored to pre-Covid-19 levels any time soon," according to a

¹⁶¹ Communications Workers of America District 9, Jobs with Justice San Francisco, Labor Network for Sustainability, United Steelworkers District 12, United Steelworkers Local 675, (pg. 10-11),

<u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522994.PDF</u> (citing specifically to the High Road Training Partnerships initiative administered by the CA Workforce Development Board).

¹⁶² Joint Advocates (Electronic Frontier Foundation and Center for Accessible Technology) (pg. 11) <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523096.PDF</u>.

¹⁶³ Yurok Tribe (pg. 4), <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522560.PDF</u>.

¹⁶⁴ "Achieving Universal Broadband in California," Public Policy Institute of California (March 2023), page 21, <u>https://www.ppic.org/publication/achieving-universal-broadband-in-california/</u>.

¹⁶⁵ "After federal investment, supply chain jams and labor shortages still hinder tribal broadband access," Marketplace (April 6, 2023) Comments by Southern California Tribal Chairmen's Association broadband advisor. <u>https://www.marketplace.org/2023/04/06/tribal-broadband-access-supply-chain-jams-labor-shortages/</u>.

¹⁶⁶ Diana Goovaerts, "Editor's Corner: Is the fiber hangover real?" *Fierce Telecom*, March 15, 2023, <u>https://www.fiercetelecom.com/broadband/editors-corner-fiber-hangover-real</u>.

2023 S&P Global Intelligence report,¹⁶⁷ citing both geopolitical risks such as Ukraine and Taiwan and transportation risks including labor unrest and unanticipated cargo surges.

According to recent research, there is a nine- to 12-month waiting period¹⁶⁸ on orders of new fiber. The allocation of BEAD funding may exacerbate the situation.

During 2023, the impact of inflation on materials costs also remains a potential barrier. "Even though inflation started to cool toward the end of 2022, it is still unclear how long it will take to return to its long-run average—that is, if currently high inflation will persist," the Federal Reserve Bank of St. Louis said.¹⁶⁹

For example, the fiber optic cable producer price index from the Federal Reserve Bank of St. Louis rose more than 20 percent between January 2020 and January 2023, the most recent date for which data are available as of the writing of this Plan, as shown below.¹⁷⁰



Figure 7: Fiber optic cable producer price index, January 2020 to January 2023

¹⁶⁸ "Strategies to Mitigate Bottlenecks in the Current Fiber Broadband Supply Chain," Fiber Broadband Association, October 2022, <u>https://www.fiberbroadband.org/d/do/4495</u>.

¹⁶⁹ Michael McCracken and Trần Khánh Ngân, Federal Reserve Bank of St. Louis, *On the Economy Blog*, "Will High Inflation Persist?" January 10, 2023, <u>https://www.stlouisfed.org/on-the-economy/2023/jan/will-high-inflation-persist</u>.

¹⁶⁷ Peter Tirschwell, "Risk Will Define Supply Chains for Years To Come," S&P Global Market Intelligence, January 13, 2023, <u>https://www.spglobal.com/en/research-insights/featured/special-editorial/look-forward/risk-will-define-supply-chains-for-years-to-come</u>.

¹⁷⁰ Federal Reserve Bank of St. Louis, "Producer Price Index by Industry: Fiber Optic Cable Manufacturing: Fiber Optic Cable, Made from Purchased Fiber Optic Strand (PCU3359213359210)" for the period January 2020 to January 2023, <u>https://fred.stlouisfed.org/graph/fredgraph.png?g=10yYm</u> (note that the hyperlink connects to the most recent data and therefore may link to a more recent version of the graph).
The CPUC will monitor these supply chain and materials challenges—including limited availability and higher prices—and will seek to advise ISPs and other stakeholders that are planning broadband deployment projects on best practices for purchasing and planning procurement, including those identified by the Fiber Broadband Association in its recent white paper, "Strategies to Mitigate Bottlenecks in the Current Fiber Broadband Supply Chain."¹⁷¹

4.4 Industry participation

As the CPUC's experience in broadband grant-making illustrates, industry participation—that is, commitments by ISPs to share the cost and risk of last-mile broadband deployment in exchange for partial public funding—will be an important factor in closing the State's digital divide.

As demonstrated by the CPUC's extensive history of grant-making to industry partners, the CPUC is confident that industry participation will be an asset, not a barrier, to the implementation of this plan. For example, the CPUC received dozens of proposals in June 2023 for projects to be funded by the CASF infrastructure Account—demonstrating the potential range of ISPs interested in partnering on broadband deployment across the State.¹⁷²

Further, ISPs have also been a critical part of the public input and dialogue regarding State policy and planning for broadband deployment and they are expected to continue their participation going forward.

That said, the CPUC also recognizes that the ability of municipal providers and smaller ISPs to build capacity could limit their ability to deploy grant-funded broadband infrastructure within the timeline that will be required by BEAD funding. The CPUC is actively soliciting feedback on this and related topics in its open rulemaking—and will consider this input as it develops its BEAD program. For example, public comments acknowledge the need and opportunity to support participation by smaller entities and public entities and urge the Commission to prioritize projects that include letters of support from local governments or community organizations and opportunities for public ownership. Comments also urge the Commission to prioritize projects on Tribal lands that have participation by the Tribal government.¹⁷³

The CPUC also requested comment on the appropriate scope and criteria for funding sources to satisfy the requirement that BEAD projects include matching funding. Public comments support a set of broad criteria to satisfy the matching funding requirements, including State funding sources to

¹⁷¹ "Strategies to Mitigate Bottlenecks in the Current Fiber Broadband Supply Chain," Fiber Broadband Association, October 2022, <u>https://www.fiberbroadband.org/d/do/4495</u>.

¹⁷² "CASF Infrastructure Project Summaries," CPUC, June 1, 2023, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-infrastructure-project-summaries</u>.

¹⁷³ County of Los Angeles (pg. 3-4)

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K169/506169960.PDF. Yurok Tribe (pg. 4) https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522560.PDF.

the extent permitted by law and possible exemption criteria for underrepresented communities such as applications from Tribal entities, that will enable smaller entities to meet this requirement more easily.¹⁷⁴ Other public comments urge the Commission to craft its rules so as to encourage grantees to provide matching with their own funds, leaving other government funding sources for use on separate projects.¹⁷⁵

4.5 Topography

California's widely varied topography includes mountains, desert, waterways, and other geographic features that will create challenges for the deployment of broadband infrastructure. The CPUC and its partners across many State agencies are deeply familiar with these issues because they have an impact on the deployment and maintenance of utilities and roads, and the delivery of other critical services.

The CPUC's potential partners in local government are also keenly aware of the barriers created by topography in their regions. For example, the government of Nevada County, California, noted this in its online "frequently asked questions" about broadband access:

The CPUC will consider topography (and its impact on extremely high-cost locations and other challenging locations) as it designs its BEAD program. The CPUC requested comment in its open proceeding on the definition "extremely high-cost locations" for its grant program design. Several comments acknowledged the barrier of topography and other factors that impose high costs to serve a particular area and urged the Commission to develop a definition that addresses high-cost factors such as topography in a flexible way that will allow a mix of technology options to encourage applications even in the hardest to reach areas of the State, while taking care to meet the needs of

Question: "Why do so many residents in Nevada County lack broadband or high-speed internet?"

Answer: "Topography: it's more difficult and expensive to build a network in rugged terrain."¹⁷⁶

¹⁷⁴ County of Los Angeles (pg. 5-6)

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K169/506169960.PDF. Yurok Tribe (pg. 6) https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522560.PDF.

¹⁷⁵ California Broadband and Video Association (pp.32-34),

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522558.PDF; AT&T (p. 6), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523427.PDF.

¹⁷⁶ "Broadband in Nevada County: FAQs," Nevada County, California, <u>https://www.nevadacountyca.gov/3496/Frequently-Asked-Questions-FAQs</u>.

the communities in high-cost areas with a framework that will support robust, reliable and affordable services.¹⁷⁷

4.6 Climate

Climate-related issues could have an impact on the deployment of broadband infrastructure in the State; the CPUC's planned mitigation efforts will include ensuring best practices in the engineering, design, and construction of BEAD-funded projects.

According to a 2019 analysis by the Legislative Analyst's Office (LAO),¹⁷⁸ California is prone to natural disasters, with flooding and fires being the most common: 40 percent of State of Emergency declarations issued by the Governor from 1950 to 2017 were related to floods, and 30 percent were related to fires.

Wildfires have become more frequent and severe in recent decades. While the State received less than five federal Fire Management Assistance Grant (FMAG) declarations per decade in the 1970s through the 1990s (issued for a large wildfire at risk of becoming a major disaster), the average has risen to 10 per year since 2000.¹⁷⁹ LAO found that the majority of the State's most destructive and largest fires had occurred within the past two decades.

The Public Policy Institute of California found that 2.7 million Californians live in areas deemed very high risk for wildfire, and millions more are at risk for heavy snow, landslides, ice, flooding, high winds, and earthquakes, putting the communications networks that serve these residents at high risk of failure when the residents need it the most- during a natural disaster.¹⁸⁰

The increasing number and intensity of wildfires, as well as Public Safety Power Shutoff events, impact the State's communications networks. The CPUC has been preparing reports and assessments of these impacts and implementing new requirements designed to provide the public with information about communication service outages.

Pursuant to Senate Bill 341 (McGuire, 2021), the CPUC worked with the California Office of Emergency Services to develop requirements for public service outage maps that are maintained by

¹⁷⁷ Joint Advocates (Electronic Frontier Foundation and Center for Accessible Technology) (p. 2-4) <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523096.PDF; Fiber Broadband Association (p. 4), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523264.PDF; CTIA- The Wireless Association (p.5-6), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522555.PDF.</u>

¹⁷⁸ "Main Types of Disasters and Associated Trends," California Legislative Analyst's Office, January 10, 2019, <u>https://lao.ca.gov/Publications/Report/3918</u>.

¹⁷⁹ The LAO report notes that, "Additionally, the Congressional Research Services' report Stafford Act Declarations 1953-2016: Trends, Analyses, and Implications for Congress identifies some changes in federal policies for declaring disasters."

¹⁸⁰ "Achieving Universal Broadband in California," Public Policy Institute of California (March 2023), page 20, <u>https://www.ppic.org/publication/achieving-universal-broadband-in-california/</u>.

communications service providers on their website. The maps, reports, and assessments are provided to CPUC Commissioners, State lawmakers, local officials and the public to alert them to communications outages and to inform potential statutory and policy changes focused on ensuring that Californians have access to these critical resources during times of wildfire or power shutoffs.

An independent report¹⁸¹ commissioned by the CPUC on considerations related to technical criteria and network design of the MMBN also noted that plant construction in the State must take into account risks from wildfires. According to the report, installing cables underground can provide protection against heat damage in areas prone to fire: research indicates that cables can withstand temperatures up to 80 degrees Celsius without experiencing significant degradation,¹⁸² and soil at a depth of 60 cm or below is unlikely to experience temperatures above 60 degrees Celsius during a wildfire.¹⁸³

The report also noted that telecommunications infrastructure design and construction in the State should take into account potential risks from seismic activity. While major earthquakes are a less frequent event than fires or floods according to the LAO analysis, making up 7 percent of emergency declarations by the State, the State has experienced multiple destructive earthquakes over the past five decades. Several major fault lines run through the State, putting surrounding areas—including some of the most populated areas in the State such as the Los Angeles area and San Francisco Bay area—at risk for damage.

4.7 Affordability

The affordability of broadband services is recognized as a barrier to broadband adoption for some Californians. In terms of helping individual Californians, the CPUC aggregates and publicizes information about low-cost internet service and subsidies that might be available to low-income households.¹⁸⁴

The CPUC and the State's Broadband for All initiative are also seeking to mitigate this challenge through a number of statewide efforts.

Two California LifeLine pilot programs launched in June 2023—one for wireline broadband services and one for wireless broadband services—are intended to address affordability issues. These pilots

¹⁸¹ "Broadband Factors for Last-Mile Connectivity," California Public Utilities Commission, December 2021, https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/broadband-implementation-for-california/caseworkers/ctc-report-to-cpuc---middle-mile-broadband-factors-for-last-mile-connectivity---20211228.pdf.

¹⁸² Y. Chen, K. Lewis, Beyond 850 C: Thermal Aging Impact on Optical Fiber with Corning CPC Coatings, June 2017, White Paper 4250, <u>https://www.corning.com</u>.

¹⁸³ H.K. Preisler et.al.: Modeling and risk assessment for soil temperatures beneath prescribed forest fires; Environment and Ecological Statistics 7, 239-25, 2000.

¹⁸⁴ "California Low Cost Internet Plans," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-low-cost-internet-plans</u>.

enable service providers to combine the California LifeLine subsidy (usually applicable to home phone and cellular service) and federal Affordable Connectivity Program (ACP) subsidies.¹⁸⁵ Pilot participants may access up to \$57.15 (and up to \$127.15 on Tribal lands) of combined federal and state support for standalone broadband service or bundled broadband and voice service plans. The pilots test whether the California LifeLine can leverage federal programs to support new types of services, increase program participation, and offer higher-quality services than would otherwise have been possible.

The CPUC's California Advanced Services Fund (CASF) Public Housing Account¹⁸⁶ is another way in which the CPUC intends to mitigate this obstacle during the implementation of the BEAD program. provides grants and loans to build broadband networks offering free broadband service for residents of low-income communities including but not limited to, publicly supported housing developments, and other housing developments or mobile home parks with low-income residents.

In 2018, the CPUC opened a rulemaking proceeding to adopt methodologies and metrics for assessing affordability of essential utility service, including communications services, to allow the CPUC to consider the relative impact on affordability of the Commission's proceedings, policies, and initiatives.¹⁸⁷

The CPUC acknowledges that consumers need affordable utility services, including communications services, to ensure health, safety, and participation in society and has used the proceeding to examine the impact of service charges for essential services on residential households at various socioeconomic statuses. The Commission noted that monitoring affordability and the impact of essential service rates on California households may help the Commission close the digital divide.

As part of the proceeding, the CPUC adopted minimum standards defining communications "essential service" (1,000 min of voice, 25/3 Mbps service and 1,024 GB of data capacity)¹⁸⁸ and a mechanism for updating the standards as consumer needs and technology advances. The CPUC also developed a framework for monitoring the affordability of communications essential service, including an ongoing analysis of the CPUC's communications public purpose programs that support

¹⁸⁵ "CPUC Advances Broadband Affordability and Access in California," CPUC, June 8, 2023, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-affordability-and-access-in-california-2023</u>.

¹⁸⁶ "California Advanced Services Fund (CASF) Public Housing Account," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-public-housing-account</u>.

¹⁸⁷ Order Instituting Rulemaking, R.18-07-006 (Filed, July 12, 2018), <u>https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M218/K186/218186836.PDF</u>; See also, CPUC Affordability Rulemaking website, <u>https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/affordability</u>.

¹⁸⁸ Decision Adopting Metrics and Methodologies for Assessing the Relative Affordability of Utility Service, D.20-07-032 (R.18-07-006) at p. 26.

affordability and adoption and applying adopted affordability metrics to measure the effectiveness of the programs.

The CPUC also directs its staff to publish an Annual Affordability Report using data regarding rates and service offerings for voice and broadband reported annually by communications service providers,¹⁸⁹ in addition to Census Bureau data and socioeconomic data such as the CalEnviroScreen vulnerable communities analysis.¹⁹⁰ The annual data request for pricing and service offerings allows the CPUC to monitor pricing trends at a granular level as it impacts affordability in different areas throughout the State.

Further, the CPUC requested public comment on strategies and criteria it may consider for grant funding requirements as it designs its Initial Proposal. Many of the comments submitted in response to this inquiry focused on affordability. These comments urged robust requirements for funded projects to go beyond minimum obligations to participate in federal discount programs like the Affordable Connectivity Program, and to require low cost service plans for the life of the infrastructure that empowers households with robust and reliable services, flexibility to meet the needs of low income customers.¹⁹¹ This type of input will help the CPUC consider a variety of options to meet BEAD program requirements for affordability more generally, as well as tailor specific rules where the CPUC has been provided discretion to move beyond minimum standards.

The CPUC received comments from small business groups suggesting that access to affordable broadband services is a key element for their work in California to, in turn, promote economic development, workforce development and support businesses owned by underrepresented communities.¹⁹²

The CPUC also acknowledges that lack of open-access middle-mile and limited competition in unserved areas can lead to affordability challenges. In its open proceeding, the Commission received public comment directly linking the importance of open access policies with ensuring last mile affordability, not only for residential and small business end users, but for local governments,

¹⁸⁹ CPUC Annual Broadband Data Collection Process (pricing and service availability), <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/broadband-mapping-program/broadband-data-submission-guidelines-and-templates</u>.

¹⁹⁰ CalEPA CalEnviroScreen, <u>https://oehha.ca.gov/calenviroscreen</u>.

¹⁹¹ County of Los Angeles (pg. 6-7),

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K169/506169960.PDF; Joint Advocates (Electronic Frontier Foundation and Center for Accessible Technology), (pg. 16-17), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523096.PDF.

¹⁹² Small Business Utility Advocates (p 3, 9-10).

community anchor institutions, and Tribal governments.¹⁹³ Other comments counterbalance this thinking with suggestions for narrower open access requirements.¹⁹⁴

The California Department of Technology (CDT) is researching broadband affordability needs and barriers as part of its parallel effort to develop the State's Digital Equity Plan. Additional discussion of efforts to mitigate broadband affordability issues will be identified by CDT in that Plan.

4.8 Digital literacy

Lack of digital literacy is recognized as a barrier to broadband adoption for some Californians. The CPUC's California Advanced Services Fund (CASF) Adoption Account makes grant funding available to increase publicly available or after-school broadband access and digital inclusion, such as grants for digital literacy training programs and public education to communities with limited broadband adoption.¹⁹⁵ The Commission is required to give preference to programs and projects in communities with demonstrated low broadband access, including low-income communities, senior citizen communities, and communities facing socioeconomic barriers to broadband adoption.

In its open rulemaking proceeding, the Commission requested comment on how the nine goals of its current Environmental and Social Justice Action Plan¹⁹⁶ can address barriers faced by disadvantaged communities. The Action Plan includes commitments by the Commission to integrate equity and access considerations throughout its proceedings and other policy development efforts and to improve communications capabilities for underrepresented communities.

In response, comments urged the Commission to promote opportunities for participation in the planning process by underrepresented communities as reflected in goals of the Commission's Action Plan, such as additional opportunities for public comments on BEAD program documents to ensure concerns about digital literacy and affordability are addressed. Comments also urged the Commission to prioritize projects that advance partnerships with community organizations and Tribal entities working with covered populations and underrepresented communities to support

https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523001.PDF.

¹⁹³ Joint Advocates (Electronic Frontier Foundation and Center for Accessible Technology), (pg. 14-15), <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523096.PDF;</u> Schools, Health, and Libraries (SHLB) Coalition (pg.2-4, 9), <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K523/506523210.PDF;</u> Next Centuries Cities (pg. 3.5), <u>https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522661.PDF;</u> The Utility Reform Network (pg. 15-17),

¹⁹⁴ California Broadband and Video Association, (pg. 2), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522558.PDF.

¹⁹⁵ "California Advanced Services Fund (CASF) Adoption Account," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/california-advanced-services-fund/casf-adoption-account</u>.

¹⁹⁶ CPUC, Environmental and Social Justice Action Plan (v. 2.0, April 7, 2022) <u>https://www.cpuc.ca.gov/ESJactionplan/</u>.

digital literacy and inclusion that will advance the goals of the Action Plan and the CPUC's overall broadband deployment goals.¹⁹⁷

As part of these calls for the CPUC to address gaps and barriers for underrepresented communities, the Commission received comments from the small business groups noting that small businesses also represent key opportunities to enhance opportunities for digital inclusion and economic development and advance the goals of the CPUC's Social Justice Action Plan for communities of color, veterans, those with disabilities among other underrepresented populations.¹⁹⁸

The California Department of Technology (CDT) is researching digital literacy needs and barriers as part of its parallel effort to develop the State's Digital Equity Plan. Additional discussion of efforts to mitigate digital literacy issues in the State will be identified by CDT in that Plan.

¹⁹⁷ New Century Cities (pg. 6-7); l Yurok Tribe (pg. 8-9), https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M506/K522/506522560.PDF.

¹⁹⁸ Small Business Utility Advocates (pg. 2-3).

5. Implementation plan

This section describes the State's comprehensive stakeholder engagement process; its priorities, planned activities, and strategies in terms of implementing the BEAD Five-Year Action Plan; and the estimated cost and timeline for achieving universal service in California.

This section addresses item 10 in the Five-Year Action Plan requirements: Comprehensive, high-level plan, including estimated timeline and cost for universal service.

5.1 Stakeholder engagement process

This section describes the comprehensive external engagement process the CPUC conducted in preparation of this Plan. The CPUC intends to continue its stakeholder engagement and outreach efforts around broadband deployment and digital equity in the State—particularly to engage with covered populations and stakeholders that historically may not have had as much representation in public planning processes.

As discussed elsewhere in this Plan, the California Department of Technology (CDT) is responsible for preparing the State's Digital Equity Plan—and, as such, has conducted its own parallel stakeholder engagement process related to broadband affordability, broadband adoption, and other elements of digital equity.

This section addresses item 7 in the Five-Year Action Plan requirements: Description of external engagement process. It addresses the five local coordination criteria identified in the NOFO Section IV.C.1.c, as well as CPUC's commitment to public deliberative rulemaking.

California has implemented extensive processes to identify stakeholders and stakeholder groups, conduct inclusive engagement with a broad range of communities, and facilitate engagement with stakeholders across the State.

As part of the preparation process for the Five-Year Action Plan and the BEAD program, the CPUC partnered with the California Department of Technology (CDT) to jointly conduct 17 Broadband for All, Digital Equity, and BEAD Planning Regional-Local Workshops in communities across California. These events were attended by more than 2,000 community members, local officials, and interested parties, and provided a forum for attendees to learn about planning for their communities to access programs to create digital equity, submit feedback on how the State's efforts to close the digital divide could be improved or made more inclusive, and connect with members of their communities who are passionate about digital equity in California.

In addition, the CPUC conducted Tribal consultations, as described in Section 5.1.2 below.

The CPUC has also participated extensively in the process of crafting the State Digital Equity Plan, led by CDT, including participating in the quarterly Statewide Planning Group, attending meetings

of the Outcome Area Working Groups, and engaging with CDT to support solicitation of input for the State Digital Equity Survey and Digital Equity Ecosystem Mapping (DEEM) Tool.

5.1.1 Public deliberative rulemaking

To develop rules for BEAD subgrantees, the CPUC is engaging in a public deliberative rulemaking and soliciting extensive feedback from stakeholders, similar to the process that the CPUC must take to form the basis of any CPUC-adopted decision establishing program rules, as governed by statute.¹⁹⁹ This is in addition to requirements in NTIA's BEAD NOFO. This means the CPUC will provide multiple additional opportunities for stakeholders and members of the public to provide input on the implementation of BEAD through the formal rulemaking process.

The CPUC initiated this process by adopting Order Instituting Rulemaking (OIR) 23-02-016 on February 23, 2023. As of the writing of this Plan, 28 parties filed written comments in response to the 14 issues and questions identified in the OIR. (See Section 5.2.) On May 31, 2023, the CPUC held a prehearing conference to solicit stakeholder input on the scope of issues to be included within the proceeding and the timeline and process for receiving additional feedback within the context of the CPUC's public deliberative process. The assigned Commissioner for R. 23-02-016 issued a Scoping Memo in July 2023, refining the issues in the scope of the proceeding and discussing the anticipated schedule.

As part of its public deliberative process, in July 2023, the CPUC is issuing a draft of this Five-Year Action Plan for public comment. The public comments filed will be appended to the revised final version of the Five-Year Action Plan prior to submission to NTIA.

The comments on the Five-Year Action Plan will inform the development of the forthcoming draft Initial Proposal, as will all other feedback received from the Local-Regional Engagements, prehearing conference, and written comments submitted in response to the OIR. The CPUC also will host a technical workshop in Fall 2023 to solicit specific input from potential subgrantees and other stakeholders regarding the content of a staff proposal.²⁰⁰ Additionally, the Commission will

¹⁹⁹ California Public Utilities Code Section 1701.1 (c) requires the CPUC, upon initiating a quasi-legislative proceeding, to assign one or more commissioners to oversee the case and an administrative law judge. The assigned commissioner shall prepare and issue by order or ruling a scoping memo that describes the issues to be considered and the applicable timetable for resolution and that, consistent with due process, public policy, and statutory requirements, determines whether the proceeding requires a hearing.

Section1701.2 (d) requires the assigned commissioner or the administrative law judge to prepare and file a decision setting forth recommendations, findings, and conclusions at least 30 days prior to a CPUC vote meeting, to allow for public comment.

Section 1701.2 (e) requires that a CPUC decision be supported by findings of fact on all issues material to the decision, and the findings of fact shall be based on the record developed during the proceeding.

Section 1701.1 (e) (8) requires the CPUC to render its decisions based on the law and on the evidence in the record.

²⁰⁰ Rule 7.5 of the CPUC's Rules of Practice and Procedure requires, for rulemaking proceeding similar to R. 23-02-016, the issuance of a staff report that contains recommendations on how to resolve the issues identified in the scoping

host a public participation hearing to solicit comments from the general public. The Commission will consider additional opportunities for the public to provide comment and engage in this process. The revised staff proposal will form the basis of the forthcoming Initial Proposal as it is crafted prior to its submission to NTIA.

Prior to submitting the Initial Proposal to NTIA for its required review by the end of 2023, the CPUC will issue a draft version of the Initial Proposal later this year to receive comments from stakeholders and members of the public on the proposed program design, including the BEAD-specific eligibility map, Challenge Process, Subgrantee Selection Process, project affordability requirements, labor and workforce requirements, and all other required elements of the Initial Proposal necessary to describe the proposed implementation of BEAD.

In response to those comments, the draft Initial Proposal may be revised and then submitted by the CPUC to the NTIA for its approval. Following the NTIA's approval of the Initial Proposal, the CPUC will issue a Proposed Decision formalizing these rules. Parties will have the opportunity to file comments on the Proposed Decision before the CPUC adopts it.²⁰¹

5.1.2 Tribal consultation

In addition to the 17 Regional-Local Workshops, the CPUC and CDT conducted three in-person Broadband for All, Digital Equity, and BEAD Regional Tribal Consultations with representatives of Tribes in Northern, Central, and Southern California, as well as an additional virtual consultation. (See Appendix C.) The CPUC is also conducting government-to-government consultations with 20 individual Tribes that requested individual consultations to further discuss the BEAD program and the individual Tribe's specific circumstances.

The CPUC has also had an appointed Tribal Advisor since 2020, who will support Tribal Nations in navigating and accessing the process for participation in the BEAD program. The Tribal Advisor will work with the CPUC's Communications Division and other entities to provide information to assist Tribes in maximizing opportunities to deploy affordable, reliable broadband service for Tribal communities utilizing strategies that respect Tribal sovereignty.

5.1.3 Full geographic coverage

The CPUC engaged the full geographic range of California through both stakeholder outreach and public engagement. As described above, the CPUC partnered with the California Department of

memo, at least one workshop providing an opportunity for the parties to the proceeding to have an interactive discussion on issues identified in the scoping memo, and at least one public engagement workshop to ensure that the issues are presented to members of the public who are not parties to the proceeding so they also have the opportunity to provide input.

²⁰¹ Rule 14.3 (a) of the CPUC's Rules of Practice and Procedure allows parties to file comments on a proposed decision within 20 days of the date of its service on the parties.

Technology (CDT) to jointly conduct 17 Broadband for All, Digital Equity, and BEAD Planning Regional-Local Workshops in communities across California.

The full list of Regional-Local Workshops is included in Appendix B. The full list of Tribal Consultations is included in Appendix C.

5.1.4 Meaningful engagement and outreach to diverse stakeholder groups

To organize each jointly conducted Regional-Local Workshop, the CPUC and CDT collaborated with a variety of partners to engage each region's diverse stakeholder groups. Partner organizations included:

- Regional Broadband Consortia
- Community-based organizations, philanthropy, and other nonprofit organizations
- Economic development organizations
- Local governments and associations of government

Workshop partners helped to outreach to community members and local organizations in each region, with an emphasis on members of communities identified as covered populations or underrepresented communities in Digital Equity Act and BEAD guidelines. More than 2,000 community members, local officials, and interested parties attended the workshops.

With the support of CPUC's dedicated Tribal Advisor, the CPUC and CDT invited Tribal leaders, Tribal technical staff and advisors, and Tribal community members to the formal Tribal Consultations in northern, central, and southern California.

The full list of Regional-Local Workshop partners is included in Appendix B.

5.1.5 Multiple awareness and participation mechanisms

Regional-Local Workshops and Tribal Consultations were shared on CDT's Broadband for All Portal, the CPUC's Events page, and the Broadband for All Eventbrite site for Digital Equity and BEAD Planning Workshops.²⁰² Partner organizations helped to raise awareness of the events and the overall BEAD planning process. Based on their experience and local knowledge, partners used outreach methods that were best suited to reach stakeholders in their regions. Methods included flyers, newsletters, social media, and local media. The CPUC and CDT also promoted the workshops and shared updates through their respective newsletters, reaching an audience of government, nonprofit, and private sector stakeholders and interested parties throughout the State.

Regional-Local Workshops and Tribal Consultations were held in person to allow for deeper engagement and interaction with stakeholders in each region. A virtual Tribal Consultation was held

²⁰² "Digital Equity and BEAD Planning Workshops," CDT Eventbrite, <u>https://www.eventbrite.com/cc/digital-equity-and-bead-planning-workshops-1979869</u>.

for any Tribes unable to attend the in-person consultations, and the CPUC anticipates conducting additional online workshops for stakeholder engagement to solicit input on crafting the Initial Proposal.

In addition to in-person and virtual events, the CPUC's public deliberative rulemaking proceeding on BEAD will also solicit extensive feedback from stakeholders and the public through written comments.

5.1.6 Clear procedures to ensure transparency

As described in Section 5.1.1 above, the CPUC ensured it followed clear procedures to ensure transparency around the BEAD proceeding. The BEAD proceeding, docketed as Rulemaking 23-02-016, was initiated via Order Instituting Rulemaking (OIR)²⁰³ approved at the CPUC's February 23, 2023, voting meeting. The OIR indicated that the CPUC would consider rules to determine grant funding, eligibility, and compliance for funds distributed to California under the federal BEAD program and invited interested parties to provide comments on the issues identified as part of the initial proceeding scope.

The CPUC received opening and/or reply comments on these initial issues and the appropriate proceeding scope from 32 parties, many of which represent a consortia or collaboration among different stakeholder groups including labor, ISPs, small businesses, educational professionals, and advocacy organizations.

After reviewing party comments and input received at the 17 Broadband for All, Digital Equity, and BEAD Planning Regional-Local Workshops, the assigned Administrative Law Judge for R. 23-02-016 issued a Scoping Memo in July 2023, finalizing the scope of issues to be considered in the proceeding and the timeline for resolving these issues. In conducting this proceeding, the CPUC will abide by its established Rules of Practice and Procedure,²⁰⁴ including the requirements governing *Ex Parte* communications with decisionmakers, to ensure that the public deliberative process is fully transparent. This is a rulemaking proceeding categorized as quasi-legislative so there are no ex-parte reporting requirements or restrictions for this proceeding.

As described in the Scoping Memo, the CPUC will hold at least one public technical workshop to solicit input on a draft BEAD Initial Proposal and will invite additional written comments on the draft Initial Proposal. The CPUC will formalize the BEAD program rules by voting on a Proposed Decision incorporating the Initial Proposal as approved by NTIA. Pursuant to the CPUC's rules, the

²⁰³ "Order Instituting Rulemaking Proceeding to Consider Rules to Implement the Broadband Equity, Access, and Deployment Program,," CPUC, March 1, 2023, https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M502/K991/502991618.PDF.

²⁰⁴ "Rules of Practice and Procedure," CPUC, May 2021, <u>https://www.cpuc.ca.gov/-/media/cpuc-</u> website/divisions/administrative-law-judge-division/documents/rules-of-practice-and-procedure-may-2021.pdf.

Proposed Decision will be available for public comment at least 30 days before being voted on by the full Commission.

5.1.7 Outreach and engagement of unserved and underserved communities

The CPUC actively sought to engage representatives of defined covered populations and historically underrepresented communities by consulting with CDT in the planning and execution of the 17 Broadband for All, Digital Equity, and BEAD Planning Regional-Local Workshops to ensure representation of defined covered populations, including specific sections of each workshop highlighting lived experiences from members of the covered populations.

The CPUC also conducted significant outreach to all California Tribes to invite participation in the regional and virtual Tribal engagements.²⁰⁵ The CPUC mailed a formal letter to all Tribal Leaders inviting each to participate in the Tribal engagements. The CPUC's Tribal Advisor coordinated with CPUC staff to follow up on this correspondence by making direct telephone calls to as many Tribes as could be reached.

The CPUC also advertised the Tribal engagements on its website, social media platforms, and in verbal conversations with stakeholders leading up to the events. The CPUC also held an online-only virtual engagement for any Tribes unable to attend the in-person regional engagements. Following these engagements, the CPUC received 20 requests for individual consultations from Tribes, which the CPUC is in the process of scheduling.

5.2 Priorities

Upon the approval of the State's Initial Proposal, which will be delivered to NTIA by no later than December 27, 2023, the CPUC may award sub-grants competitively to subgrantees to carry out the following broadband deployment activities, consistent with the BEAD NOFO: 1) unserved service projects; 2) underserved service projects; 3) projects connecting eligible community anchor institutions; 4) broadband data collection, mapping, and planning; 5) installing internet and Wi-Fi infrastructure or providing reduced-cost broadband within a multi-family residential building; 6) broadband adoption programs; and 7) other activities determined by NTIA.²⁰⁶

While the BEAD NOFO provides clear guidance on federal rules and minimum standards for the program, it also provides for State discretion on additional requirements and priorities. The CPUC is required to gather public input in an open public proceeding to determine specifically what these

²⁰⁵ Administrative Law Judge's Ruling Providing Notice of Tribal Consultations, Docket 23-02-016, May 22, 2023, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M509/K544/509544728.PDF.

²⁰⁶ "Infrastructure Investment and Jobs Act," U.S. Congress, <u>https://www.congress.gov/bill/117th-congress/house-bill/3684/text</u>, at §60102(f).

additional requirements might look like and how the BEAD funds will be offered to qualified subgrantees.

As discussed in Section 5.1.4, the Commission's rulemaking proceeding to gather input on potential additional requirements, guidelines, and priorities has collected public comment from a wide variety of stakeholders and remains open for further data, input, and comments—and for the Commission to publish draft rules. Below are the questions being considered in the initial scope of the proceeding:²⁰⁷

- 1. Extremely High-Cost Threshold. The NTIA's Notice of Funding Opportunity requires the CPUC to establish an "Extremely High Cost Per Location Threshold" in a manner that maximizes use of the best available technology while ensuring that the program can meet the prioritization and scoring requirements.²⁰⁸ The NTIA expects the Extremely High Cost Per Location Threshold to be set as high as possible to help ensure that end-to-end fiber projects are deployed wherever feasible. How should the Commission define the threshold for locations that constitute "extremely high cost" locations?
- 2. Geographic Level. The Notice of Funding Opportunity gives flexibility to states to solicit proposals from prospective subgrantees at the geographic level of their choosing—for example, on a per-location basis, per-census block basis, per-town, per-county or another geographic unit. States may alternatively solicit proposals for project areas they define or ask prospective subgrantees to define their own proposed project areas. What is the best, or most appropriate, geographic level for subgrantee proposals?
- **3. Overlapping Project Areas.** What mechanism should be used for overlapping proposals to allow for a like-to-like comparison of competing proposals?
- 4. Selection Among Priority Broadband Projects. In addition to the Primary Criteria and Secondary Criterion required in the Notice of Funding Opportunity, which additional prioritization factors should be considered?²⁰⁹ How should they each be measured, and should they be weighted in prioritization?

https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2302016. See also the preliminary scoping memo,

²⁰⁷ "California Broadband Equity, Access, and Deployment (BEAD) Program," CPUC, <u>https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/broadband-implementation-for-california/bead-program</u>. See also: "BEAD Rulemaking (R.23-02-016)," CPUC, <u>https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2302016</u>. See also the

https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M502/K991/502991618.PDF, at p.4.

²⁰⁸ "NOFO: BEAD Program," NTIA, <u>https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf</u>, Section IV.B.6.b.

²⁰⁹ Additional Criteria proposed are: Equitable Workforce Development and Job Quality, Open Access, and Local and Tribal Coordination.

- 5. Selection Among Other Last-Mile Broadband Deployment Projects. In addition to the Primary Criteria and Secondary Criteria required in the Notice of Funding Opportunity, which Additional Prioritization Factors should be considered?²¹⁰ How should they each be measured, and should they be weighted in prioritization?
- 6. Challenge Process. States must develop and implement a transparent, evidence-based, fair, and expeditious challenge process under which a unit of local government, nonprofit organization, or broadband service provider can challenge a determination made by states as to whether a particular location or community anchor institution within the jurisdiction of the Eligible Entity is eligible for grant funds. Among other things, the process must allow for challenges regarding whether a particular location is unserved or underserved as defined in the Infrastructure Act and Section I.C of the Notice of Funding Opportunity. What information²¹¹ should be provided by a challenger as a basis for asserting service already exists at a location, or at locations, that disqualify them from being called "unserved?"
- 7. Match Requirement. The IIJA expressly provides that matching funds for the BEAD Program may come from federal regional government entities and from funds that were provided to an Eligible Entity or a subgrantee for the purpose of deploying broadband service under the Families First Coronavirus Response Act, the CARES Act, the Consolidated Appropriations Act of 2021, or the American Rescue Plan Act of 2021, to the extent permitted by those laws. What State funding should also be allowed to be used as matching funds?
- 8. Statewide Middle-Mile. How should the Commission prioritize subgrantee project proposals that plan on utilizing the statewide open-access middle-mile network? Should the Commission require applicants proposing to build their own middle-mile infrastructure with BEAD funds to make their network open access? In the event the middle-mile portion of an application significantly overlaps the statewide middle-mile network, should the applicant be required to consult with the California Department of Technology?
- **9. Ministerial Review.** Should the Commission include a ministerial review process whereby the Commission delegates to staff the ability to approve BEAD subgrants that meet certain criteria? What should those criteria be?
- **10. Grant Conditions.** What conditions should the Commission impose on BEAD subgrantees—for example, workforce development (e.g., job training) or affordable plans?

²¹⁰ Additional Criteria proposed are: Equitable Workforce Development and Job Quality, Open Access, and Local and Tribal Coordination.

²¹¹ For context, refer to Decision 22-04-055, Section 19 at https://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&docid=470543650.

- 11. Grant Applications. How many application cycles should there be in a calendar year?
- 12. Payments. What payment milestones should the BEAD subgrantee program adopt?
- **13. Impacts on environmental and social justice communities**, including the extent to which BEAD Program subgrants will impact achievement of any of the nine goals of the Commission's Environmental and Social Justice Action Plan.
- 14. How should the Commission implement other issues for which it has discretion under the BEAD NOFO? Parties should specify the issues, including the statute or rule, and include specific recommendations.

The Commission will issue draft rules later this year for public comment. After adoption, these rules will be incorporated into the Initial Proposal and put out for public comment.

5.3 Planned activities

CPUC's plan for ensuring reliable, affordable broadband service to all residents will focus on developing and implementing a grant program that will efficiently and effectively distribute BEAD and other funding (as described in Section 3) to subgrantees to achieve universal service.

CPUC has an open rulemaking proceeding for its BEAD program as of the writing of this Plan (see Section 5.2); through this process, the CPUC will develop rules for using BEAD funding to award competitive grants to ISP partners to construct broadband infrastructure to unserved and underserved address locations. This activity will be complemented by the State's previously announced broadband deployment grants (e.g., CPUC's Federal Funding Account and California Advanced Services Fund).

The CPUC's planned activities also include extensive, ongoing public engagement and continued coordination and alignment with the State's Broadband for All efforts.

California's longstanding commitment to broad stakeholder engagement in advancing digital equity and broadband access is reflected in the California Broadband Council, established by statute in 2010 and consisting of 12 members representing the CPUC, CDT, the California Assembly and Senate, the nonprofit California Emerging Technology Fund, and other executive branch agencies. The California Broadband Council promotes broadband deployment in unserved and underserved areas of the State (as defined by the CPUC), and broadband adoption throughout the State. The Council identifies State resources, encourages public and private partnerships, and recommends policy to provide high-speed internet access throughout California.

In 2020, Governor Gavin Newsom issued Executive Order N-73-20 to take action to close the digital divide in California by improving connectivity around the State. The Executive Order also directed the California Broadband Council to develop a new Statewide Broadband Action Plan to

promote digital equity throughout California. Shortly after the Executive Order, the California Broadband Council released the Action Plan to achieve three long-term goals for all Californians:

- Create access to high-performance broadband at home, schools, libraries, and businesses everywhere in the State.
- Make available affordable broadband and the devices necessary to access the internet.
- Provide avenues for training and support to enable digital inclusion.

Since releasing the Broadband for All Action Plan, the California Broadband Council has worked diligently to leverage the State's full range of tools, including policy, programs, funding, partnerships, and collaborations with federal, local, and Tribal governments, to engage stakeholders and achieve the goals of the Broadband for All Action Plan.

In addition to any technical workshops in the proceeding to solicit input on crafting and refining the Initial Proposal prior to submission to NTIA, the CPUC anticipates undertaking extensive stakeholder engagement following submission of the Initial Proposal to maximize opportunities to share information, catalyze coordination between interested stakeholders, and support development of successful subgrant applications.

- The CPUC anticipates conducting informational webinars for prospective applicants at both the Challenge Process and subgrantee application phases, which will be preceded by extensive outreach to prospective attendees to ensure as many stakeholders as possible are prepared to attend.
- The CPUC will also seek to coordinate outreach for BEAD with outreach for other last-mile funding programs, including the Last Mile Federal Funding Account and California Advanced Services Fund, in order to encourage applicants of these other programs to also consider submitting complementary applications for BEAD funds as appropriate.
- The CPUC will also leverage existing networks of applicants for these programs and associated partners, including the Regional Broadband Consortia funded through the California Advanced Services Fund Rural and Urban Regional Broadband Consortia Account, to maximize opportunities for cross-promotion of programs and synergies between complementary activities and objectives.

The CPUC has also created a team of Broadband Internet Caseworkers to help local jurisdictions and other stakeholders navigate the complex landscape of strategies and funding for developing affordable high-speed internet for everyone. The caseworkers provide seminars and expertise about grants, project planning, data and mapping, business models, and regulations. This approach was informed by the Covid-19 pandemic where it became clear that community leaders and local governments needed help accessing connectivity programs and applying for grants. The Broadband Internet Caseworkers will continue providing direct support for community leaders and local governments seeking opportunities to leverage BEAD investments to provide affordable, reliable broadband service to unserved communities in California.

As noted above, the CPUC has also had an appointed Tribal Advisor since 2020, who will support Tribal Nations in navigating and accessing the process for participation in the BEAD program. The Tribal Advisor will work with the CPUC's Communications Division and other entities to provide information to assist Tribes in maximizing opportunities to deploy affordable, reliable broadband service for Tribal communities utilizing strategies that respect Tribal sovereignty.

5.4 Key strategies

The CPUC's strategies for implementing the BEAD Five-Year Action Plan will be informed by the open and transparent rulemaking process described above (including extensive opportunities for public comment and engagement at every step); aligned and coordinated with the CPUC's ongoing efforts and the State's Broadband for All Action Plan;²¹² and in full compliance with the NTIA's BEAD program requirements. These strategies will also build on the CPUC's long history of successful grant-making for the purpose of achieving broadband infrastructure deployment and digital equity in the State.

5.5 Estimated timeline for universal service

California has a long-standing commitment to providing connectivity and digital equity to everyone in the State. The CPUC recognizes such an undertaking requires short, medium and long-term planning. Long-term planning is likely to require additional federal and State funding beyond the BEAD funding because the cost estimate for universal service under a fiber-to-the-premises model, as noted in further detail in Section 5.6, exceeds NTIA's BEAD allocation.

Guided by the BEAD program requirements, the California Broadband for All Action Plan, and the outcome of the CPUC's open BEAD proceeding, the CPUC is working to develop and administer a grant program with a goal of achieving universal broadband service in California that may use a mix of technologies to fit within the BEAD allocation of \$1,864,136,508.93. The CPUC recognizes that this estimated timeline may be affected by the lack of sufficient funding or other considerations.

5.6 Estimated cost for universal service

This section presents the State's data-driven model of the costs to deliver universal broadband access to unserved locations in California.

The CPUC contracted with CostQuest Associates (CostQuest) to estimate the number of unserved addresses and the investment required to bring broadband to areas in California lacking service using

²¹² "California Broadband for All," https://broadbandforall.cdt.ca.gov/about/.

the Federal Funding Account program eligibility requirements adopted in CPUC Decision 22-04-055.

By analyzing data on service availability using California's definition for unserved, CostQuest determined there are 996,302 unserved and underserved locations lacking access to broadband speeds of at least 100 Megabits per second (Mbps) downstream and 20 Mbps upstream through a reliable wireline connection, defined as fiber-to-the-premises or using DOCSIS 3.0 or greater technology.

CostQuest used a series of forward-looking cost models to estimate the investment to deploy a fiber-to-the-premises network to unserved locations. Based on the modeling, an estimated \$9.78 billion investment will be needed for new fiber and equipment to serve all unserved locations with a fiber-to-the-premises network design and with additional hardening for locations in high fire threat districts. This estimate assumes no re-use of existing infrastructure (e.g., poles, conduit, manholes, etc.) in the total investment.²¹³

Even if the final number of unserved locations is reduced, California expects the cost to serve these locations to remain significantly higher than NTIA's BEAD allocation of \$1,864,136,508.93 and a high-cost allocation within that amount of \$605,239,464.61.²¹⁴ For example, in its analysis, CostQuest details that the top 12 percent most expensive locations account for 50.5 percent of the cost.

5.7 Alignment

This section addresses item 12 in the Five-Year Action Plan requirements: Alignment of the Plan with other State efforts and priorities.

The vision, goals, and proposed supporting actions within this Plan are fully aligned and coordinated with the State's priorities of expanding broadband deployment and adoption. According to the California Broadband for All Action Plan, the States broadband goals are:

- 1. All Californians have high-performance broadband available at home, schools, libraries, and businesses.
- 2. All Californians have access to affordable broadband and necessary devices.

²¹³ "California Broadband Investment Model – Last Mile Funding Analysis: Process Overview and Methods," CostQuest Associates, April 2023, <u>https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/broadband-implementation-for-california/ffa-webpages/ca-broadband-investment-model_04212023.pdf</u>.

²¹⁴ "Biden-Harris Administration Announces State Allocations for \$42.45 Billion High-Speed Internet Grant Program as Part of Investing in America Agenda," NTIA, Press Release, June 26, 2023, <u>https://ntia.gov/press-release/2023/biden-harris-administration-announces-state-allocations-4245-billion-high-speed</u>.

3. All Californians can access training and support to enable digital inclusion.

Each goal aligns with CPUC's funding opportunities that support last mile broadband infrastructure and deployment assistance, broadband affordability, and digital inclusion. The CPUC's Last Mile Federal Funding Account helps homes, schools, libraries, businesses, and other institutions with last mile broadband connectivity, potentially connecting to the State's Middle Mile Broadband Network. The California LifeLine Program provides monthly subsidies to low-income qualified residents to achieve broadband affordability. Also, the CPUCs Broadband Adoption Account provides funds to increase publicly available or after-school broadband access and digital inclusion in the form of grants for devices, digital literacy training programs, and public education for communities with limited broadband adoption.

This Plan and the CPUC's programs also align with the priorities of other key State entities in terms of broadband deployment. These include the following:²¹⁵

- 1. **California Department of Housing and Community Development:** Leverage existing Housing and Community Development programs to provide free broadband service for tenants in newly built housing and publicly subsidized units.
- 2. **California Department of Technology:** Promote existing State contractual vehicles with ISPs and vendors to support cost savings and efficient purchasing of broadband services and equipment.
- 3. **California Department of Education:** Lead statewide efforts to ensure that students have the computing devices and connectivity necessary for distance learning and online instruction.
- 4. **California Department of Aging:** Analyze the needs of aging population for access to affordable, reliable, high-speed broadband, and identify programmatic and partnership opportunities to meet these needs.

In addition to the CPUC's aligned efforts with other State entities, this Plan also aligns with the CPUC's Environmental and Social Justice (ESJ) Action Plan Version 2.0, adopted in 2022, which identified a specific objective of extending essential communications services to ESJ communities by ensuring implementation of new investments that offer ESJ communities' access to essential communications services at affordable rates. Specifically, the Action Plan committed the CPUC to ensuring that broadband investments are benefiting as many ESJ community members as possible, that essential speeds are more available, that ESJ communities meaningfully participate in the planning and implementation of the programs and investments, and to explore opportunities to leverage new investments to lower costs and increase essential speeds to address concentrations of unaffordability of communications services in ESJ communities.

²¹⁵ See also the list of State partners in Table 5: Partners.

The Five-Year Action Plan's intent to undertake extensive outreach and engagement with ESJ communities, to utilize BEAD investments to expand equity and access to reliable broadband service, and to leverage investments to ensure services are affordable to residents of ESJ communities align with the CPUC's existing commitment to this objective.

5.8 Technical assistance

This section addresses item 13 in the Five-Year Action Plan requirements: Technical assistance and capacity needed for successful implementation.

The CPUC, which is in regular contact with its Federal Program Officer, does not anticipate requesting any technical assistance from NTIA.

6. Conclusion

This Five-Year Action Plan establishes a BEAD program implementation plan for achieving California's broadband goals and priorities—and presents a needs assessment that will inform the State's Initial Proposal.

This Plan is aligned and coordinated with California's Broadband for All²¹⁶ initiative, which reflects Governor Gavin Newsom's significant commitment to close the digital divide in California. This is exemplified in the Broadband for All Action Plan,²¹⁷ prepared in response to Executive Order N-73-20,²¹⁸ and in the once-in-a-lifetime investments authorized under Senate Bill 156 (Chapter 112, Statutes of 2021)²¹⁹ which committed \$6 billion toward development of a statewide open-access middle-mile network and grants for last-mile infrastructure and technical assistance.

Under the banner of Broadband for All, California's commitment to closing the digital divide, the CPUC has developed the needs assessment and implementation plan presented in this document to advance the goal of ensuring *all Californians have access to affordable, high-performing broadband service at home, schools, libraries, and businesses.*

To develop rules for the BEAD grant-making process and its future subgrantees, the CPUC is engaging in a public deliberative rulemaking and soliciting extensive feedback from stakeholders, similar to the process that the CPUC must take to form the basis of any CPUC-adopted decision establishing program rules, as governed by statute. This is in addition to requirements in NTIA's BEAD NOFO. This means the CPUC will provide multiple additional opportunities for stakeholders and members of the public to provide input on the implementation of BEAD through the formal rulemaking process.

The CPUC is also fully coordinating its BEAD activities with the California Department of Technology (CDT), which is the State of California's designated entity for the Digital Equity elements of the Infrastructure Investment and Jobs Act.

On behalf of the State of California, the CPUC submits this Five-Year Action Plan.

²¹⁶ "California Broadband for All," <u>https://broadbandforall.cdt.ca.gov/</u>.

²¹⁷ "California Broadband for All Action Plan," California Broadband Council, 2020, <u>https://broadbandcouncil.ca.gov/wp-content/uploads/sites/68/2020/12/BB4All-Action-Plan-Final.pdf</u>.

²¹⁸ "Executive Order N-73-20," State of California, August 14, 2020, <u>https://www.gov.ca.gov/wp-content/uploads/2020/08/8.14.20-EO-N-73-20.pdf</u>.

²¹⁹ "Senate Bill 156," https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB156.

Appendix A: Additional asset inventory data

The following tables identify additional assets identified by the CPUC during preparation of this Plan, as well as assets identified by the California Department of Technology (CDT) in the course of its preparation of the State's Digital Equity Plan.

Additional asset inventory – broadband adoption assets

Entity name	Description
Build Hope, Inc.	Received a Broadband Adoption Account grant in 2023 to offer digital literacy classes and upgrade computer labs in public housing in Los Angeles and Watts through a partnership with the Housing Authority of the City of Los Angeles (HACLA.) ²²⁰
Computers for Classrooms	Computers for Classrooms, based in Chico, Calif., provides computers at a discount for low-income households and other eligible California residents. ²²¹
Shasta Public Libraries	Offer Chromebooks for in-person use. ²²²
Santa Cruz Public Libraries	Offer mobile Wi-Fi hotspot and device loans, including Chromebooks and Amazon tablets, ²²³ and several locations offer tech support and digital skills assistance. ²²⁴
Sonoma County Library	Offers technology training and instruction in using the internet and computers. ²²⁵

²²⁰ "CPUC Advances Broadband Access and Equity in State," CPUC news release, April 27, 2023, <u>https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-access-and-equity-in-state-2023</u>.

²²¹ Computers for Classrooms, <u>http://computersforclassrooms.org/requests-for-computers/</u>.

^{222 &}quot;Unique Items for Checkout," Shasta Public Libraries, https://www.shastalibraries.org/unique-items-for-checkout/.

²²³ "Library of Things," Santa Cruz Public Libraries, <u>https://www.santacruzpl.org/library-of-things/</u>.

²²⁴ "Digital Learning," Santa Cruz Public Libraries, <u>https://www.santacruzpl.org/digitallearning/</u>.

²²⁵ "Technology Training," Sonoma County Library, <u>https://sonomalibrary.org/events/programs/technology-training</u>.

Entity name	Description
San José Public Library	Offers Wi-Fi hotspots for take-home use, loans numerous devices, and has digital literacy workshops as well as online self-guided tech courses. ²²⁶
San Diego Public Library	Offers computers for use with internet access. ²²⁷
Long Beach Public Library	Lends Chromebooks and Wi-Fi mobile hotspots, ²²⁸ as well as offering computer and digital skills instruction at several library branches. ²²⁹
Berkeley Public Library	Offers basic computer skills classes at public library branches, as well as classes at Berkeley Senior Center locations. ²³⁰
San Bernardino County Library	Offers free Wi-fi access and public computers for use. ²³¹
Los Rios Community College District Computers for Students	Los Rios Community College District offers some students who meet eligibility requirements free Chromebook computers. ²³²

Additional asset inventory – broadband access assets

Asset name	Description
LA County Hotspot	Los Angeles County has created a database of Wi-Fi hotspots
Locator	unoughout the County, many of which offer free access.

²²⁶"SJ Access: Free Internet & Tech Devices," San Jose Public Library, <u>https://www.sipl.org/sjaccess#borrow</u>.

²²⁷ "Internet Access Services," City of San Diego, <u>https://www.sandiego.gov/public-library/services/specialresources/internet</u>.

²²⁸ "LBPL Tech To-Go," Long Beach Public Library, <u>https://www.longbeach.gov/library/borrow/tech-to-go/</u>.
²²⁹ "Computers and Printing," Long Beach Public Library, <u>https://www.longbeach.gov/library/learn/computers-printing/</u>.

²³⁰ "Local Computer Classes," Berkeley Public Library, <u>https://www.berkeleypubliclibrary.org/computers/local-computer-classes</u>.

²³¹ "Free Wifi and Public Computers," San Bernardino County Library, <u>https://sbclib.org/free-wifi-and-public-computers/</u>.

²³² "Computers for Students," Los Rios Community College District, <u>https://losrios.edu/student-resources/technology-resources/computers-for-students</u>.

²³³ LA County Hotspot Locator,

https://lacounty.maps.arcgis.com/apps/webappviewer/index.html?id=26159b0526e64bea94533e89da583b89&utm_co_ntent=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=.

Asset name	Description	
City of Mountain View free Wi-Fi	The City is offering free Wi-Fi service by Ruckus Wireless at the Mountain View Public Library. The City also partnered with Google to offer free outdoor Wi-Fi and indoor Wi-Fi at selected locations. ²³⁴	
City of Santa Monica free public Wi-Fi	Free Wi-Fi service is available in several locations in the City including Annenberg Community Beach House, Palisades Park, libraries, Santa Monica Place, and Bergamot Station. ²³⁵	
Orange County Public Library – Wi-Fi on Wheels	Through this pilot initiative, the Library parks a mobile vehicle that can provide Wi-Fi access for up to 150 users within 300 yards at pre-planned locations. ²³⁶	
City of Healdsburg free Wi- Fi	The City is offering free public Wi-Fi service for residents and visitors in the "downtown area between City Hall and the Police Department (including the Plaza) as well as the Swim Center and the Community Center." ²³⁷	
City of Fremont free Wi-Fi	The City is working with Comcast to offer broadband access using Wi-Fi at two "Lift Zones" at City facilities. ²³⁸	
City of San Francisco free public Wi-Fi	The City offers free public Wi-Fi in select parks and on Market Street. ²³⁹	
Moreno Valley free public Wi-Fi	The City is offering free public Wi-Fi as a part of its Wi-Fi Garden project. Wi-Fi locations are listed on an interactive map. ²⁴⁰	
City of Pleasanton free public Wi-Fi	The City offers free public Wi-Fi at the Pleasanton Public Library. ²⁴¹	

²³⁴ "Wi-Fi," City of Mountain View, <u>https://www.mountainview.gov/our-city/departments/information-technology/wi-fi?locale=en</u>.

²³⁵ "Where to Find Free Wi-Fi in Santa Monica," Santa Monica, <u>https://www.santamonica.com/experience-santa-monica/free-wi-fi-santa-monica/</u>.

- ²³⁶ "Wi-Fi on Wheels," OC Public Libraries, <u>https://ocpl.org/WifiOnWheels</u>.
- ²³⁷ "Free Public Wi-Fi," City of Healdsburg, <u>https://www.ci.healdsburg.ca.us/167/Free-Public-Wi-Fi</u>.

²³⁸ "Infrastructure Services," City of Fremont, <u>https://www.fremont.gov/government/departments/information-technology-services/infrastructure-services</u>.

²⁴¹ "Free WiFi Access," City of Pleasanton, <u>https://www.cityofpleasantonca.gov/gov/depts/lib/services/wifi.asp</u>.

²³⁹ "San Francisco Wi-Fi," City and County of San Francisco, <u>https://sfgov.org/sfc/sanfranciscowifi</u>.

²⁴⁰ "CLIC Get Access," Moreno Valley, <u>https://www.moval.org/clic/get-access.html</u>.

Asset name	Description	
City of Long Beach free public Wi-Fi	The City offers free public Wi-Fi at City Hall, select libraries, the Long Beach Airport, and parks. ²⁴²	
City of Ukiah free public Wi-Fi	The City is offering free public Wi-Fi at the Civic Center, Municipal Airport, Municipal Golf Course, and Conference Center. ²⁴³	
City of Glendale free public Wi-Fi	The City offers free public Wi-Fi at all library locations, including outside the facility. ²⁴⁴	
Guerneville free public Wi- Fi	Guerneville offers free public Wi-Fi in the downtown area. ²⁴⁵	
City of Hayward free public Wi-Fi	The City offers free public Wi-Fi to provide internet access in the downtown area. The City is planning to expand the Wi-Fi network to the "new 21st Century Library and Heritage Plaza which are currently under construction." ²⁴⁶	
Lake County free public library Wi-Fi	All branches of the Lake County Library System offer free public Wi-Fi access. ²⁴⁷	
City of Fort Bragg free public Wi-Fi	The City offers free public Wi-Fi in the downtown area and to visitors at the Starr Center. ²⁴⁸	
City of Torrance free public Wi-Fi	The City offers free public Wi-Fi using access points at the following locations: "Katy Geissert Civic Center Library, all branch libraries, Torrance Cultural Arts Center, Torrance Arts Museum and City Hall Council Chambers." ²⁴⁹	

²⁴² "Public Wi-Fi Expansion," Long Beach, <u>https://www.longbeach.gov/ti/modernization/public-wi-fi-expansion/</u>.

²⁴⁴ "Wireless Internet Access (Wi-Fi)," City of Glendale, <u>https://www.glendaleca.gov/government/departments/library-arts-culture/wireless-internet-access</u>.

²⁴⁵ "Good news on the river: Guerneville has free Wifi," *Sonoma County Gazette*, July 5, 2022, <u>https://www.sonomacountygazette.com/sonoma-county-news/good-news-on-the-river-guerneville-has-free-wifi/</u>.

²⁴⁶ "Downtown Hayward Public Wifi," City of Hayward, <u>https://www.hayward-ca.gov/services/city-services/downtown-hayward-public-wifi</u>.

²⁴³ "Public WiFi Access Points," City of Ukiah, <u>https://cityofukiah.com/public-wifi/</u>.

²⁴⁷ "Public Computers & Internet," Lake County, <u>https://www.lakecountyca.gov/845/Public-Computers-Internet</u>.

²⁴⁸ "Public Wi-Fi," Fort Bragg, <u>https://www.city.fortbragg.com/departments/information-technology/public-wi-fi</u>.

²⁴⁹ "FAQs," City of Torrance, <u>https://www.torranceca.gov/government/communications-information-technology/faqs</u>.

Asset name	Description	
UC Berkeley Library free Wi-Fi	The UC Berkeley campus provides free public Wi-Fi access for visitors. ²⁵⁰	
City of Lake Forest free public Wi-Fi	The City is offering free public Wi-Fi internet access in major city locations which include "City Hall, Etnies Skatepark of Lake Forest, and the Lake Forest Sports Park and Recreation Center." ²⁵¹	
City of Rocklin free public Wi-Fi	The City, through a partnership with Astound Broadband, offers free Wi-Fi access in five community parks. ²⁵²	
Fresno County free public library Wi-Fi	The library system offers free public Wi-Fi internet access at all locations, accessible 24/7 near the facility. ²⁵³	
City of Chula Vista free public Wi-Fi	The City offers free public Wi-Fi at most library branches and recreation centers. ²⁵⁴	
City of Santa Clara public library Wi-Fi	The City's public library offers internet access through Wi-Fi using a personal device. ²⁵⁵	
SonomaFi	Through the SonomaFi program, Sonoma County libraries lend Wi-Fi hotspots and Chromebooks to cardholders to provide free broadband access. ²⁵⁶	
City of Pasadena free public Wi-Fi	The City offers free public Wi-Fi at 15 of its 33 parks and received a \$1.5 million grant in 2022 from the Department of Housing and Urban Development (HUD) to extend the service to all parks and park facilities. ²⁵⁷	

²⁵⁰ "Wi-Fi at the libraries," UC Berkeley library, <u>https://www.lib.berkeley.edu/visit/wi-fi</u>.

²⁵² "WI-FI in the Parks," City of Rocklin, <u>https://www.rocklin.ca.us/wi-fi-parks</u>.

²⁵³ "Free Wireless Internet Access," Fresno County Public Library, <u>https://www.fresnolibrary.org/about/wireless.html</u>.

²⁵⁴ "Digital Equity and Inclusion Strategy," City of Chula Vista, <u>https://www.chulavistaca.gov/businesses/smart-city/internet-access</u>.

²⁵⁵ "Wi-Fi Access," City of Santa Clara Library, <u>https://www.sclibrary.org/services/computers-and-printing/wi-fi-access</u>.

²⁵⁶ "Free or Affordable Technology," Santa Rosa Junior College, <u>https://onlinestudentservices.santarosa.edu/free-or-affordable-technology</u>.

²⁵⁷ "City of Pasadena Receives \$1.5 Million Grant to Expand Free Public Wi-Fi Service in City Parks," City of Pasadena news release, March 22, 2022, <u>https://www.cityofpasadena.net/city-manager/news/city-of-pasadena-receives-1-5-million-grant-to-expand-free-public-wi-fi-service-in-city-parks/</u>.

²⁵¹ "Public Wifi," Lake Forest, <u>https://www.lakeforestca.gov/en/residents/public-wifi</u>.

Asset name	Description
City of Hawaiian Gardens free public Wi-Fi	The City offers free public Wi-Fi at key locations including City Hall, C. Robert Lee Activity Center, Public Safety Center/Library, Lee Ware Park, Helen Rosas Center, Clarkdale Park, Teen Center, and Fedde Sports Complex. ²⁵⁸
El Dorado County Library free Wi-Fi	All County library locations offer free Wi-Fi access. ²⁵⁹
Folsom Public Library free Wi-Fi	The Folsom Public Library provides Wi-Fi access inside and outside the facility. ²⁶⁰
Sacramento County Library free Wi-Fi	County library branches provide Wi-Fi access. ²⁶¹

Additional asset inventory – digital equity assets

Asset name	Description	
City of Long Beach Digital	The initiative connects individuals with low-cost internet services	
Inclusion initiative	resources through the Human-I-T Equip Program, and digital literacy training resources under the Human-I-T Include Program. It also offers a platform called ConnectedLB that allows households to search for low-cost internet services and devices in their zip code. ²⁶²	
County of Los Angeles Internal Services Department (ISD) –Delete	The ISD-led Delete the Divide initiative connects County residents and small businesses in communities impacted by the digital divide with digital inclusion resources, ²⁶³ and is launching a Community Broadband Networks pilot to provide free high-speed internet	

²⁵⁸ "FREE WiFi Hotspots now available!," City of Hawaiian Gardens, <u>https://www.hgcity.org/services/free-wifi-hotspots-now-available-in-hawaiian-gardens</u>.

²⁵⁹ "About the Library," El Dorado County Library, <u>https://eldoradolibrary.org/about-the-library/</u>.

²⁶⁰ "Computers," Folsom Library, CA, <u>https://www.library.folsom.ca.us/services/computers</u>.

²⁶¹ "Locations," Sacramento Public Library, <u>https://www.saclibrary.org/Locations</u>.

²⁶² "Digital Inclusion Community Resources," Long Beach Technology & Innovation, <u>https://longbeach.gov/ti/digital-inclusion/resources/</u>.

²⁶³ Delete the Divide, <u>https://www.deletethedivide.org/</u>.

Asset name	Description	
the Divide; Digital Navigator Project	service in underserved neighborhoods. ²⁶⁴ ISD also received a Broadband Adoption Account grant in 2023 to support Digital Navigators who will assist residents in communities impacted by the digital divide in acquiring computer devices and internet services as well as providing ongoing support and training. ²⁶⁵	
United Way California Capital Region	Offers digital skills training, free internet and hotspots, as well as refurbished desktops/devices to under-resourced populations in the Sacramento area. ²⁶⁶	
Community Tech Network (CTN) and EAH Housing Digital Equity Partnership	With funding from the CPUC, CTN (a nonprofit focused on digital literacy and inclusion) has partnered with EAH Housing (an affordable housing nonprofit) to offer digital skills training to residents in the Central Valley. The program includes eight hours of technology classes, and a certificate and new tablet device upon completion of the program. ²⁶⁷	
EveryoneOn	EveryoneOn is bridging the digital divide gap by connecting people in under-resourced communities with affordable broadband internet service and computers and digital literacy training. ²⁶⁸ The organization's programs are available nationally, and it has specific initiatives in California: its Enrollment Assistance Hotline, which provides live guidance on the internet subscription process, is available in Los Angeles, San Diego, and the Bay Area; ²⁶⁹ and the organization received a Digital Equity Spark Grant from the Michelson 20MM Foundation to develop a toolkit for diverse organizations in California to build capacity for digital equity work through a "train the trainer" model. ²⁷⁰	

²⁶⁴ "Community Broadband Networks," Delete the Divide, <u>https://www.deletethedivide.org/community-broadband/</u>.

²⁶⁵ ²⁶⁵ https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-access-and-equity-in-state-2023

²⁶⁶ "Digital Equity," United Way California Capital Region, <u>https://www.yourlocalunitedway.org/our-work/support-families/digital-equity/</u>.

²⁶⁷ "CTN's Exciting New Digital Equity Initiative with EAH Housing in the Central Valley", Community Tech Network, <u>https://communitytechnetwork.org/blog/ctns-exciting-new-digital-equity-initiative-with-eah-housing-in-the-</u>centralvalley/.

²⁶⁸ Everyone On, <u>https://www.everyoneon.org/</u>.

²⁶⁹ "About Us," EveryoneOn, <u>https://www.everyoneon.org/about-us#mission</u>.

²⁷⁰ "Building Digital Inclusion Capacity in Your Community," EveryoneOn, <u>https://www.everyoneon.org/digital-communities</u>.

Asset name	Description
Fresno Coalition for Digital Inclusion (FCDI)	FCDI is made up of representatives from local government, educational institutions, and community-based organizations and works to improve digital inclusion by drawing on cross-sector community partnerships to solve digital equity challenges throughout Fresno County. ²⁷¹
School2Home	The initiative works with partner schools in 12 districts throughout the State to implement the initiative's 10 core components, including Technology Bundles for Students and Teachers, Parent Engagement and Education (which includes six hours of digital literacy training for parents), Student Tech Expert Development, and more. ²⁷²
City of Oceanside Digital Equity Plan	The City utilized ARPA funding to develop a Digital Equity Plan with three main pillars: access to the internet, access to devices, and promoting digital literacy. In May 2022, the City Council approved an agreement with SiFi networks to install a citywide fiber network. The Oceanside Public Library offers digital literacy training classes weekly and has started a small-scale effort to lend digital devices; Oceanside Senior Services provides free computer classes for seniors. ²⁷³
ATA College	Offers a fiber optic certification program in San Diego. ²⁷⁴

²⁷¹ "Opening opportunities through digital inclusion in Fresno, California," Strive Together, <u>https://www.strivetogether.org/opening-opportunities-through-digital-inclusion-in-fresno-california/</u>.

²⁷² "About Us," School2Home, <u>https://school2home.org/about/</u>.

²⁷³ "Digital Equity Study," City of Oceanside, <u>https://www.ci.oceanside.ca.us/government/city-manager/communications/digital-equity-study</u>.

²⁷⁴ "Become a Certified Fiber Optic Technician," ATA College, <u>https://atacollege.edu/programs/fiber-optics-technician-certification/</u>.

Appendix B: Schedule of public engagements

This appendix contains the schedule of public engagements the CPUC facilitated to conduct stakeholder outreach and engagement during the development of this Plan.

Table 12: Schedule of public engagements	

Date	Region	Location	CPUC and CDT's organizing partners
Apr 14, 2023	North San Joaquin Valley	Merced College 3600 M Street, Merced	San Joaquin Valley Regional Broadband Consortium (SJVRBC), Central Valley Higher Education Consortium (CVHEC)
Apr 15, 2023	Central and South San Joaquin Valley	Fresno City College 1101 E University Avenue, Fresno	San Joaquin Valley Regional Broadband Consortium (SJVRBC)
Apr 21, 2023	Southern Border	San Diego Central Library 330 Park Blvd, San Diego	San Diego Association of Governments (SANDAG), Imperial Valley Economic Development Corporation (IVEDC), Imperial County Transportation Commission (ICTC), Southern Border Broadband Consortium (SBBC)
Apr 27, 2023	Northeastern - Upstate	Chico Masonic Family Center 1110 W East Avenue, Chico	North State Planning and Development Collective, CSU Chico, Northeastern and Upstate Regional Broadband Consortiums
Apr 28, 2023	North Bay North Coast	Santa Rosa Veterans Building 1351 Maple Ave, Santa Rosa	North Bay North Coast Broadband Consortium, consisting of Marin County, Mendocino County, Napa County, and Sonoma County
May 3, 2023	Redwood Coast	Jefferson Community Center 1000 B St., Eureka	Redwood Coast Connect Consortium, Redwood Coast Economic Development Commission, Access Humboldt
May 5, 2023	San José/Santa Clara County	Santa Clara County Office of Education	City of San José (City), County of Santa Clara (County), Santa Clara County Office of

Date	Region	Location	CPUC and CDT's organizing partners
		1290 Ridder Park Dr, San José	Education (SCCOE), Joint Venture Silicon Valley (JVSV)
May 11, 2023	Capital Area/ Sacramento	Sacramento Central Library 828 I Street, Sacramento	Valley Vision, Capital Region Coalition for Digital Inclusion (CRCDI), Connected Capital Area Broadband Consortium (CCABC), consisting of Sacramento County, Sutter County, Yolo County, and Yuba County
May 12, 2023	Gold Country	Grass Valley Veterans Memorial Building 255 S Auburn St, Grass Valley	Sierra Business Council, Gold Country Broadband Consortium, consisting of El Dorado County, Nevada County, Placer County, and Sierra County
May 16, 2023	Inland Empire (San Bernardino/ Riverside)	CSU San Bernardino 5500 University Pkwy, San Bernardino	Inland Empire Regional Broadband Consortium (IERBC), the County of San Bernardino (CSB), the County of Riverside
May 19, 2023	Los Angeles	LA Trade Tech Campus 400 W Washington Boulevard, Los Angeles	Los Angeles Digital Equity Action League (LA DEAL)
May 20, 2023	Los Angeles (Long Beach)	Veterans Park Social Hall 101 East 28th Street, Long Beach	Southern California Association of Governments (SCAG)
May 24, 2023	Orange County	Orange County Administration South Building 601 North Ross Street, Santa Ana	County of Orange and Orange County Business Council (OCBC)
May 30, 2023	Central Sierra	Tuolumne County Resiliency Center 18241 Bay Avenue, Tuolumne	Central Sierra Broadband Utility Zone, consisting of Alpine County, Amador County, Calaveras County, Mariposa County, and Tuolumne County
Jun 1, 2023	Pacific Coast	Hancock College 800 S College Drive, Santa Maria	Economic Development Collaborative (EDC), Santa Barbara Foundation (SBF)
Jun 2, 2023	Central Coast	CSU Monterey Bay 4314 6th Avenue, Seaside	Monterey Bay Economic Partnership (MBEP), The Central Coast Broadband Consortium (CCBC), consisting

Date	Region	Location	CPUC and CDT's organizing partners	
			of Monterey County, San Benito	
			County, and Santa Cruz County	
Jun 8, 2023	Bay Area	Oakstop - The Broadway	#OaklandUndivided, the East	
		Event Hall	Bay Economic Development	
		2323 Broadway Avenue,	Alliance (EBEDA), Tech	
		Oakland	Exchange, City of San Francisco	
			Digital Equity, San Francisco	
			Tech Council	

CPUC - CDT BEAD workshops flyer



CPUC and CDT Announce Broadband for All, Digital Equity, and BEAD Regional Planning Workshops



The internet is now an essential part of everyday life. Yet one out of five Californians lack access to affordable, reliable broadband service, devices, and the skills to use them.

Millions in our state are unable to access essential government services and realize other social and economic benefits that most others enjoy due to the impact of digital equity barriers. This gap is referred to as the "digital divide," and most affects those in low-income households, seniors, the disabled,

veterans, incarcerated individuals, members of racial and ethnic minority groups, those with language barriers and low levels of literacy, tribal communities, and rural residents.

Broadband for All is the state's overarching program to close the digital divide and foster digital equity in our communities. The state has invested billions of dollars to achieve Broadband for All and ensure that every resident has access to economical and dependable internet, devices, and skills training. However, more needs to be done.

The State Digital Equity team led by the <u>California Department of Technology (CDT</u>), the <u>California</u> <u>Public Utilities Commission (CPUC</u>), and other state agencies and local partners are hosting 20 <u>Broadband</u> for All, <u>Digital Equity</u>, and <u>Broadband Equity</u>, <u>Access</u>, <u>and Deployment (BEAD</u>) Regional Planning Workshops across the state.

At each workshop, community members and local organizations are invited to take part in the development of the State's Digital Equity and BEAD Five-Year Action Plans that will determine how future federal dollars are allocated to address digital inequities in each community.

Protecting California since 1911

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies.





Attend a workshop near you

All events are free and open to the public. Register for a workshop in your area and do your part to close the digital divide today. As timing for individual workshops may change, please visit this <u>website</u> for the most up-to-date information.

Date	Location	Registration Link
April 14	Merced (Merced College - Library)	Register
April 15	Fresno (Fresno City College, Old Administration Building – Cafeteria)	Register
April 21	San Diego (San Diego Central Library)	Register
April 27	Chico (Chico Masonic Family Center)	Register
April 28	Santa Rosa (Santa Rosa Veterans Memorial Building)	Register
May 3	Eureka (Jefferson Community Center)	Register
May 5	San Jose (Santa Clara County Office of Education, Ridder Park Site)	Register
May 11	Sacramento (Sacramento Central Library)	Register
May 12	Grass Valley (Grass Valley Veterans Memorial Building)	Register
May 16	Inland Empire (CSU San Bernardino)	Register
May 19	Los Angeles (LA Trade Tech Campus)	Register
May 20	Long Beach (Veterans Park Social Hall)	Register
May 24	Santa Ana (Orange County Administration South Building)	Register
May 30	Tuolumne (Tuolumne County Resiliency Center)	Register
June 1	Santa Maria (Allan Hancock College)	Register
June 2	Seaside (CSU Monterey Bay Student Center)	Register

For additional events in your area, visit BroadbandforAll.cdt.ca.gov/events.

Protecting California since 1911

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Regional-Local Workshop example 1



Friday, April 14

Broadband for All, Digital Equity, and BEAD Planning Workshop -Merced

Part of the Digital Equity and BEAD Planning Workshops collection

North San Joaquin Valley Broadband for All, Digital Equity, and BEAD Planning Workshop



Regional-Local Workshop example 2



Friday, May 12

Broadband for All, Digital Equity, & BEAD Planning Workshop Northern Sierra

Part of the Digital Equity and BEAD Planning Workshops collection

Gold County - Broadband for All, Digital Equity, and BEAD Planning Workshop



Regional-Local Workshop example 3



Tuesday, May 16

Broadband for All, Digital Equity and BEAD Planning Workshop-Inland Empire

Part of the Digital Equity and BEAD Planning Workshops collection

Inland Empire (San Bernadino/ Riverside) - Broadband for All, Digital Equity, and BEAD Planning Workshop



Appendix C: Summary of Tribal consultations

This appendix contains the schedule of Tribal consultations the CPUC facilitated to conduct stakeholder outreach and engagement during the development of this Plan.

Date	Region	Location	
June 20, 2023	Northern California Tribes	Redding Library Community Room	
		1100 Parkview Avenue, Redding	
June 22, 2023	Central California Tribes	Eagle Mountain Casino	
		1850 West St., Porterville	
June 27, 2023	Southern California Tribes	Kumeyaay Community College	
		910 Willow Glen Drive, El Cajon	
July 12, 2023	Virtual Statewide Tribal	Held from 1:00 pm to 3:00 pm	
	Consultation	Registration link: <u>Broadband for All, BEAD &</u> <u>Digital Equity Tribal Consultation - Virtual</u> <u>Tickets, Wed, Jul 12, 2023 at 1:00 PM </u> <u>Eventbrite.</u>	

Table 13: Schedule of Tribal consultations

Tribal consultation example 1



Tuesday, June 20

Broadband for All, BEAD & Digital Equity Tribal Consultation -Northern CA



Tribal consultation example 2



Wednesday, July 12

9

Broadband for All, BEAD & Digital Equity Tribal Consultation - Virtual

Part of the Digital Equity and BEAD Planning Workshops collection

Virtual Tribal Consultation between California Tribes, CPUC, and CDT regarding broadband and digital equity.

By Department of Technology

180 followers

Appendix D: Cost model data

As part of its work on the Federal Funding Account as authorized by SB 156, CPUC staff has managed an update to the previous California Cost Model. However, the Federal Funding Account is funded by ARPA—which predates BEAD, so it operates under a different metric for unserved locations that are eligible for program funding.

CPUC's work to update the cost / investment model under the BEAD program will use:

- a. The BEAD-mandated definition of "unserved" for broadband availability, and
- b. The locations in California issued to CPUC by NTIA as forming the basis for the State's BEAD allocation.

Table 1. Unserved Definition

	California Service Definition	Locations
Unserved	Service <= 100x20Mbps. Lacking access to at least 100Mbps upstream x 20Mbps downstream with ETTP or at least DOCSIS 3.0	996,302

Table 2. California FTTP Network Investment Summary—unserved locations

	Unserved
FTTP Network Investment	\$ 7,463,192,829
Additional Fire Hardening	\$ 2,316,359,894
Total	\$ 9,779,552,723
Locations	996,302