

The Broadband Environment, Part 1: Government Framework and Funding

California Public Utilities Commission - Broadband Caseworkers
March 2023



Overview of Caseworker Seminars

Level 1	Level 2	Level 3
Business Considerations: <ul style="list-style-type: none">• Services, customer segments, market participants• Business/ownership models	Business Considerations: <ul style="list-style-type: none">• Funding strategies and fundamentals of finance• Intro to business plans	Business Considerations: <ul style="list-style-type: none">• Business plans, revenue sources, and forecasting• Marketing and strategic planning
Technology Talks: <ul style="list-style-type: none">• Overview of broadband technologies• Definitions, descriptions, graphics	Technology Talks: <ul style="list-style-type: none">• Cost modeling/resources required to deploy broadband• Strengths/weaknesses of different technologies	Technology Talks: <ul style="list-style-type: none">• Best practices for deploying and operating broadband• IRUs, pole attachments, easements, etc.
Policies and Tools: <ul style="list-style-type: none">• State/federal funding overview• CPUC role and available tools [maps/data]	Policies and Tools: <ul style="list-style-type: none">• Regulatory considerations and best practices for permitting• Timeline for accessing grant opportunities	Policies and Tools: <ul style="list-style-type: none">• Using the Federal Funding Account + Loan Loss Reserve• Data collection, mapping, and reporting requirements

Goal: A community that completes the seminar series will be prepared to acquire grants and subsequently develop a successful broadband network.

AGENDA

1. California Communications Evolution – Tech, Market, and Regulation
2. The Role of Government as Regulator, Grantmaker, and Facilitator
3. Introduction to State Funding and Resources
4. Introduction to Federal Funding and Resources

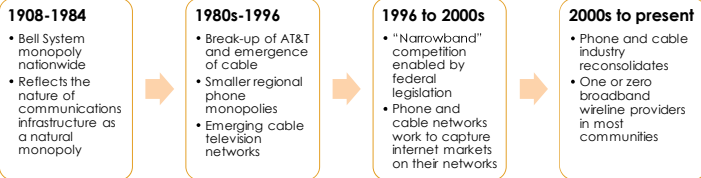
California Communications Evolution

Learning Objectives

- Understand how broadband has developed in California, from a regulatory perspective, to understand current market dynamics
- Connect the dots with the Technology and Business presentations



California Communications Evolution



Communications Evolution Discussion

- What are your takeaways about the relationships between technology, the market, and regulation?
- In what ways does broadband resemble a public utility (like water or power)? In what ways does it not?
- Follow-up questions can be sent to BroadbandCaseworkers@Cpuc.Ca.Gov

Role of Government as Regulator, Grantmaker, and Facilitator

Learning Objectives

- Know the key state and federal agencies involved in broadband policy

Government as Regulator: Limited Role

California as Regulator

- Federal law limits state regulation of broadband prices/access
- Contrast to the tools that get telephones, water, postal service, and energy to rural and low-income households
- Roles include:
 - Licensing service providers
 - Public safety, e.g., battery backup for towers
 - Regulating marketing and terms/conditions of service

FCC as Regulator

- Light touch regulation of interstate telecommunications (consumer protection, outages, national 911)
- FCC chooses not to regulate rates
- Other FCC Roles include:
 - Mapping and collecting data on service provider coverage
 - Regulating broadband marketing (including how speeds, prices, fees, etc. are advertised)

CALIFORNIA ALL

Government as Facilitator and Grantmaker

Broadband for All

A series of state initiatives begun in 2020 in coordination with federal infrastructure funding:

- The California Broadband Council
- Governor's Executive Order N-73-20
- The Broadband Action Plan
- SB-156, funding middle and last mile
- Upcoming IJA planning processes for using federal infrastructure & digital equity funds

Broadband Action Plan

Addresses three long-term goals:

- 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.

Broadband for All: State Agencies

Governor's Office

- Go Biz: economic development
- California Broadband Council
- Office of Tribal Affairs

California Public Utilities Commission

- Regulates communication providers with focus on service quality, affordability, and consumer protection
- Directed to administer federal BEAD funding program
- Administers multiple public purpose programs
- Manages state broadband map

California Department of Technology

- Overseeing state middle mile network
- Developing statewide digital equity plan

Caltrans

- Manages state highways and roads
- Coordinates with federal agencies for access to interstate highways
- Works with service providers to place equipment in right-of-way
- Building state middle mile network

Department of Education

- Funds school connectivity to California Research and Education Network (CalREN)
- Runs education technology initiatives
- Coordinates discounted services for K-12 schools through federal E-rate discount

California State Library

- Manages library connections to CalREN
- Coordinates discounted services for libraries through federal E-rate discount program

National Broadband Policy: Federal Agencies

Federal Communication Commission

- Regulates communications, including broadband access and competition
- Universal Service Fund is the most reliable source of federal communications funding

National Telecommunications and Information Administration

- Research and development
- Policy advisor to Executive Branch on telecommunication and technology
- Administers multiple infrastructure and digital equity grant programs that provide funding to states

Federal Trade Commission

- Consumer protection and enforcement
- Anti-trust regulation and enforcement

Department of Agriculture Rural Utilities Service

- Longstanding loan and grant program for rural infrastructure, including broadband
- ReConnect grant program for rural broadband

Department of Commerce Economic Development Administration

- Research and development on economic impacts of broadband
- Grant programs for broadband projects to support economic development

Department of Housing and Urban Development

- Community Block Grant Development can support broadband planning and deployment for public housing

Government Regulation Discussion

- What are your takeaways about the federal and state roles in telecommunications?
- Do you have existing relationships with these agencies? Do you participate in any of their proceedings?
- Are there other agencies that you work with more closely?

- Follow-up questions can be sent to BroadbandCaseworkers@Cpuc.Ca.Gov

Introduction to State Funding and Resources

Learning objectives

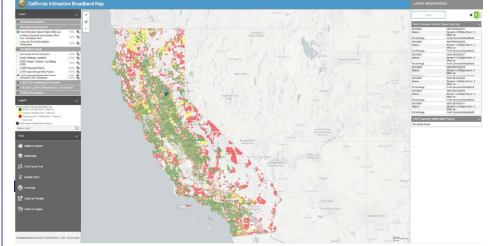
- Introduction to data and mapping resources created by the CPUC
- Introduction to state funding sources and key programs

CPUC Mapping

Collects data from service providers and outside research

Maps show unserved, served, and service levels at census block level

Several layers to the map including adoption rates, location of grant funded projects, anchor institutions

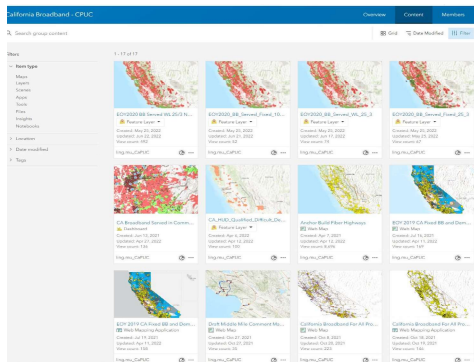


Unserved: fastest service offering is less than 25/3 Mbps

<https://www.broadbandmap.ca.gov/> See also, <https://www.cpuc.ca.gov/industries-and-topics/internet-and-phone/broadband-mapping-program/additional-broadband-mapping-resources>
California Public Utilities Commission

CPUC Mapping

CPUC also has a data dashboard with multiple state maps that are updated and provide different angles and perspectives on broadband deployment in the state



Data/Mapping Discussion

- What resources do you have for mapping and data within your jurisdiction?
- What are your most-used analytical tools?
- Follow-up questions can be sent to BroadbandCaseworkers@Cpuc.Ca.Gov

CPUC Funding

Infrastructure Programs

Mix of state and federal funding

- [Federal Funding Account](#)
- [Loan Loss Program](#)
- [California Advanced Services Fund - Infrastructure](#)
- [Local Agency Technical Assistance](#)
- [Tribal Technical Assistance](#)
- [California Advanced Services Fund – Public Housing](#)
- Affordability programs
 - [California LifeLine](#)
- California Broadband for All has a Funding Opportunities Tool
<https://broadbandforall.cdt.ca.gov/funding/>

CPUC Broadband Funding Programs

Program	Description	Status/Deadlines	Applicants/Eligibility
Local Agency Technical Assistance \$50 million distributed until funds are exhausted Grants capped at \$1 million per year	Grant-funded program to reimburse pre-project costs related to the development of broadband infrastructure projects	Application window is open	Local governments and Tribal governments that will provide service to unserved areas Can apply for funding to support a project where local gov't is a partner or lead agency
Loan Loss Reserve Fund \$750 million allocated for the Fund	Grant-funded program for costs related to the financing of broadband infrastructure projects by local governments, tribal governments, and nonprofits	Application window has not opened; rules and application processes are pending further action by the CPUC (expected Q1 2023)	Local governments, Tribal governments, and nonprofits
Federal Funding Last Mile Account \$3 billion statewide over three years	Grant-funded program for last-mile infrastructure deployment projects	Application window has not opened, pending further action by the CPUC.	Broad scope of eligible applicants, including local governments Local gov't can apply for funding on its own if it will directly offer service on the funded network, or it can partner with a service provider or other government agency to build and provide service

Other CPUC Broadband Funding Programs

Program	Description	Status/Deadlines	Eligibility
Tribal Technical Assistance \$5 million funded program	Grant-funded program to build capacity for Tribes to implement projects to improve communications and broadband services to Tribal communities. Applicants can receive up to \$150,000 per fiscal year.	Applications accepted by the first day of each quarter for consideration in that quarter.	All California tribes (with and without federal recognition).
CASF – Infrastructure \$24.8 million allocated in 2022/2023	Grant-funded program for last mile infrastructure projects. Priority funding for areas with less than 10/1 Mbps available.	Applications due annually on April 1. Approved or denied by end of year, with most approved or denied by October 1.	Telephone corporations, wireless carriers, facilities-based broadband providers, and local agencies are eligible.
CASF – Public Housing \$15 million allocated in 2022/2023	Grant program to install inside wire and equipment for broadband networks that will offer free broadband service for residents of publicly supported housing and farm worker housing.	Application windows: • July 1, 2023 • January 1, 2024 • July 1, 2024	Local governments cannot apply, but can educate and encourage owners of publicly supported housing and farm worker housing, including nonprofits, to apply

CPUC Local Agency Technical Assistance

\$50 Million for Tribal Governments and Local Agencies for last-mile broadband infrastructure projects.

- **Eligibility**
 - Tribal set-aside from total funding.
 - Funds pre-construction deliverables, such as environmental permits, engineering studies, and strategic plans
- **Applications**
 - 94 applicants requested a total of \$42 million.
 - Currently being accepted
- **Awards**
 - 68 grants for \$30 million (December 12, 2022).
 - [County dashboard](#)
 - [Technical assistance program](#)



Federal Funding Last Mile Account

Funding for last-mile infrastructure projects in every California county

- The \$2 billion **Federal Funding Account** is for last-mile broadband infrastructure.
 - All unserved locations are presumed eligible.
 - Entities eligible to apply include Tribes, service providers, public entities, and non-profits.
 - CPUC will evaluate applications based on points-based program rules [available here](#).
- Next steps:
 - Broadband availability data set will be updated with more current version.
 - Will release a new map before opening the application window
 - Archived materials are available on the website for **information only**
- Targeting **June 2023** to open the first application window.

Broadband Loan Loss Reserve Fund

\$750M of funding for costs related to the financing of broadband infrastructure projects for local government agencies and nonprofits

- Eligible entities: local governments, tribal governments, utility districts and nonprofits
- The CPUC is currently taking public comment on the terms and conditions of this program
- Funding from this program is expected to be spent mostly in Fiscal Year 2023-2024
- Applicants can request funding to support costs related to the financing of a project, establish reserves for missed loan payments, and serve as collateral for bond financing
- Goal of program is to attract private lending and lower the cost of financing an infrastructure project for local governments and nonprofits by lowering risk for lenders and banks

Affordability programs

Mix of federal and state funding

In addition, infrastructure awards often require affordable services for low-income customers

- **Affordable Connectivity Program:** Federal funding
 - Federal program offering discounted broadband
 - Participants can also qualify for subsidized device
 - Funding for outreach efforts
- **Lifeline:** Federal and state funding
 - Discount on wireless and wireline voice services
 - Participants often receive free wireless devices
- **Teleconnect:** State funding
 - Discounts for broadband subscriptions for schools and libraries
- **California Advanced Service Fund - Adoption Account:** State funding
 - State grant funding for homework gap and digital literacy programs

CPUC Funding Discussion

- Are you familiar with any broadband deployment or affordability programs already available in your community?
- Which funding programs are you most interested in learning more about?
- Is affordability of broadband an issue in your community? What efforts does your community make to enroll eligible people in your community into available affordability programs?

Introduction to Federal Funding and Resources

Learning objectives

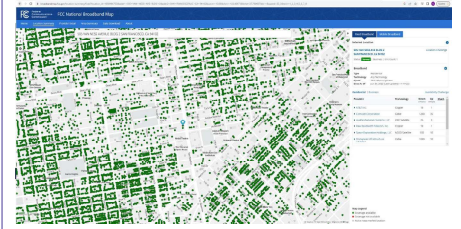
- Introduction to mapping resources
- Introduction to federal funding sources
- Introduction to upcoming federal programs from the Infrastructure and Jobs Act

FCC Mapping

Carriers provide data about their service territories and service offerings to the FCC

FCC's "Broadband Data Collection" process provides granular mapping data down to the address level

Anyone can challenge the information on the map



FCC mapping results will impact state and local funding resources for broadband deployment projects through federal programs

<https://broadbandmap.fcc.gov/home>

Funding Opportunities by Source



Department of Agriculture

- Rural Broadband Access loan & loan guarantee program
- ReConnect rural broadband grant/loan program
- Distance Learning & Telemedicine equipment grant program
- Telecommunications Infrastructure Loan program



National Telecommunications & Information Administration

- Tribal Broadband Connectivity Program
- Digital Equity Grant Program
- Broadband Equity, Access and Deployment (BEAD) Grant Program



Economic Development Administration

- Economic Adjustment Assistance
- Planning and Local Technical Assistance Program



Federal Communications Commission

- Affordable Connectivity Program – subsidized service for low-income households
- E-Rate – subsidized service for schools & libraries
- Healthcare Connect and Rural Healthcare programs – subsidized service for hospitals & clinics

What is the BEAD opportunity?



Access

- **Increases access for unserved and underserved** households to ensure that all Americans have access to high-speed Internet
- Ensures Americans have access to **high-quality, broadband services** to support full participation in the 21st century economy and beyond



Affordability

- Supports **affordability** of broadband services, esp. in low-income households
- Fosters a system that **promotes long-term, sustainable, affordable solutions**






Adoption and equity

- **Enables investment in digital skills training** to increase the number of households adopting high-speed Internet and narrow adoption disparities
- Makes investments to ensure Americans can **participate in economy & society, reducing inequities** across sectors, including healthcare, workforce & education

SOURCE: National Telecommunications & Information Administration
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BEAD to prioritize complete coverage of unserved locations and underserved locations (where funding permits)

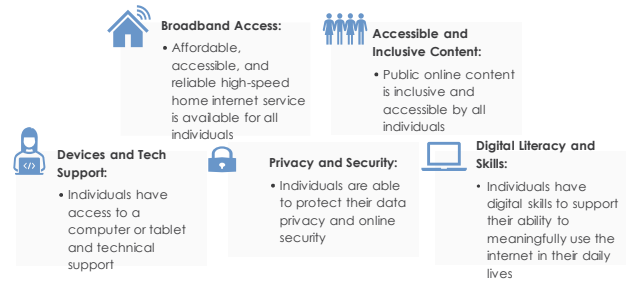
- 
 Complete coverage of **unserved locations** (incl. by deploying Wi-Fi to multi-family buildings)
- 
 Complete coverage of **underserved locations** (where funding permits)
- 
 NTIA urges use of remaining funds for **Community Anchor Institutions (CAIs)** before other eligible uses

SOURCE: National Telecommunications & Information Administration

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What is the Digital Equity opportunity?

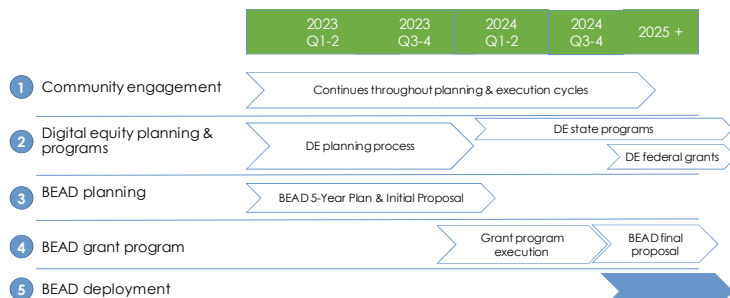


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SOURCE: National Telecommunications & Information Administration

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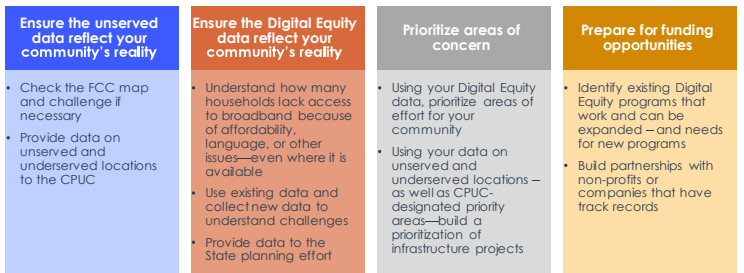
Summary BEAD (CPUC) and Digital Equity (CDT) Timelines



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How to Participate in BEAD & Digital Equity Planning

Communities can take steps to inform BEAD and Digital Equity plans – and to benefit from them



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Federal Funding Discussion

- Does your county already have USDA or EDA broadband funding?
- What kinds of public outreach is your community preparing for BEAD and Digital Equity planning processes?
- What types of data does your community already have that would be helpful for digital equity or infrastructure projects?

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Preview of Parts 2 and 3 of The Broadband Environment

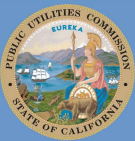
Part 2

- Optimizing your community for broadband deployment: Mapping, permitting, data, and other processes
- Workforce issues

Part 3

- A deep dive into the upcoming funding opportunities and how to access them (for staff preparing grant applications)

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