

Broadband for All Roundtable

Internet Service Providers

May 12, 2022









AGENDA

- Broadband for All Update
- Middle-Mile Broadband Initiative Update
- Last-Mile and Adoption Programs Update
- Affordable Connectivity Program Update & Panel
- NTIA IIJA Broadband Programs Update
- Q & A

Scott Adams

Deputy Director, Broadband & Digital Literacy California Department of Technology

Access

Affordability

Adoption

Digital Equity and Inclusion

California Broadband Council Executive Order N-73-20 2020 Broadband Action Plan

2021 Middle-Mile Broadband Initiative

CDT Action Items

CDT oversees implementation of the Action Plan overall and leads 6 of its 24 Action Items.

Promote, track, and publicly report the progress of adoption of affordable Enhance permitting processes at all #6 #16 internet services and devices levels of government throughout the state. Develop multi-layer network of digitalinclusion stakeholders to discuss Identify state property for possible use #18 for broadband infrastructure ongoing needs, share resources, and coordinate initiatives Promote state contractual vehicles to Establish Broadband For All portal to enable access to broadband support cost savings and efficient purchasing of broadband services and information and tools and serve as a equipment. central repository.

#6 Permitting

- Federal
 - Federal Permit Improvement Steering Council
- State
 - Caltrans Resources Agency Partners
- Local Governments
 - Local Jurisdiction & ISP Surveys
 - Check List
 - Playbook
- Tribal Governments

#7 State Properties

Jason Kenney

Deputy Director, Real Estate California Department of General Services

#21 Broadband for All Portal



Closing the digital divide

Broadband for All is California's commitment to closing the digital divide. Broadband is essential for vital services and opportunities, but millions of Californians still lack adequate broadband service or the devices and skills to use it.

Join us as we engage and support partners across the state to achieve Broadband for All.

Learn more



Broadband initiatives



Broadband for All Action Plan

In response to executive order N-73-20, the California Broadband Council developed the "Broadband for All" Action Plan with the understanding that broadband access, adoption, and training are essential components of digital equity.



Middle-Mile Broadband Initiative

In July 2021, Governor Newsom signed SB 156. This directed the California Department of Technology to develop a statewide, open-access middle-mile network. SB 156 provides \$3.25 billion to build the necessary infrastructure to bring internet connectivity to homes, businesses and community institutions.



Last-Mile and Adoption Programs

To complement the middle-mile network, SB 156 included \$2 billion to build last-mile infrastructure, provide funding for local agency technical assistance, and a loan loss reserve. The California Public Utilities Commission administers these along with a suite of existing programs that support broadband deployment, assistance, affordability, and adoption.

Mark Monroe

Deputy Director, Middle-Mile Broadband Initiative California Department of Technology

SB 156 (Chapter 112, Statutes of 2021)

- \$6 billion investment over three years to:
 - Expand broadband infrastructure
 - Increase affordability
 - Enhance access to broadband for all Californians
- \$3.25 billion to develop, acquire, construct, maintain and operate a statewide "open-access middle-mile" network (CDT)
- \$2.75 billion for last-mile infrastructure grant programs (CPUC)

Working together to achieve SB 156



California Department of Technology

- Program, fund management, reporting and oversight
- Retain TPA
- In collaboration with TPA and CPUC, facilitate high speed broadband access through last-mile connectivity



California Public Utilities Commission

- Provide data to identify unserved & underserved areas
- Facilitate public comment
- Recommend network placement



Third Party Administrator

Manages the development, acquisition, construction, maintenance and operation of the statewide open-access middle-mile broadband network



Caltrans

- Leverage existing transportation projects
- Oversee acquisition and management of construction contracts for openaccess middle-mile broadband network



Department of Finance

- Budget oversight and facilitation
- State and Local Fiscal Recovery Funds (SLFRF) quarterly reporting to the federal government

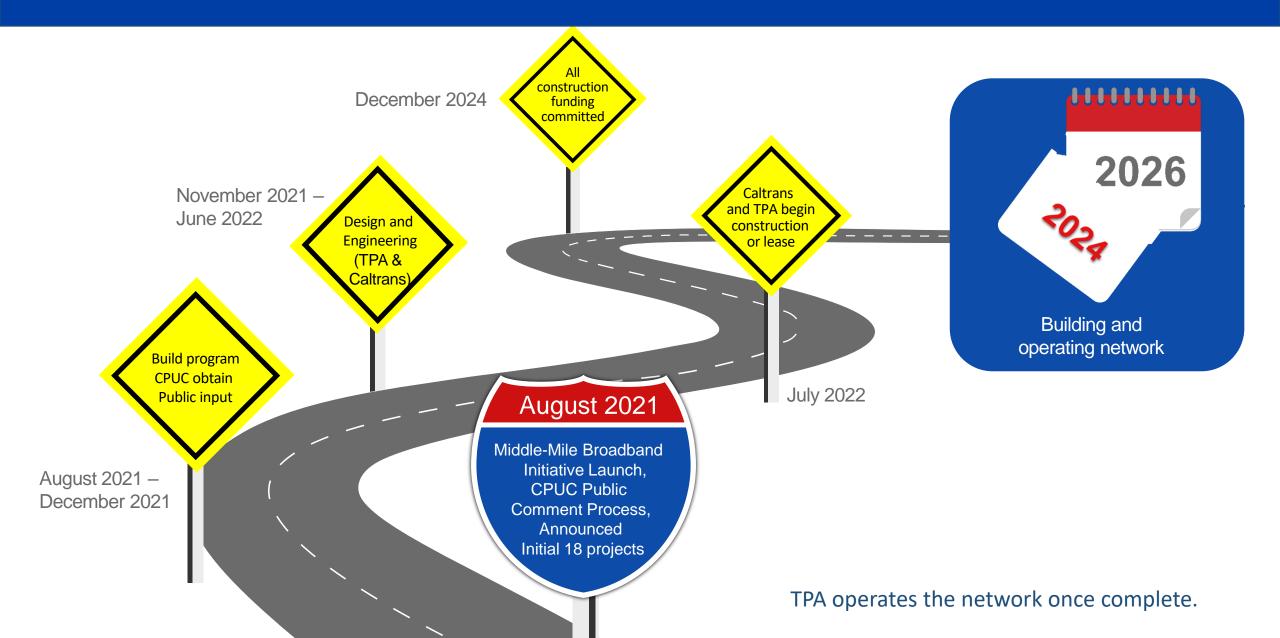
Guiding Principles

Provide affordable, open-access, middle-mile broadband infrastructure to enable last-mile network connectivity throughout the state.

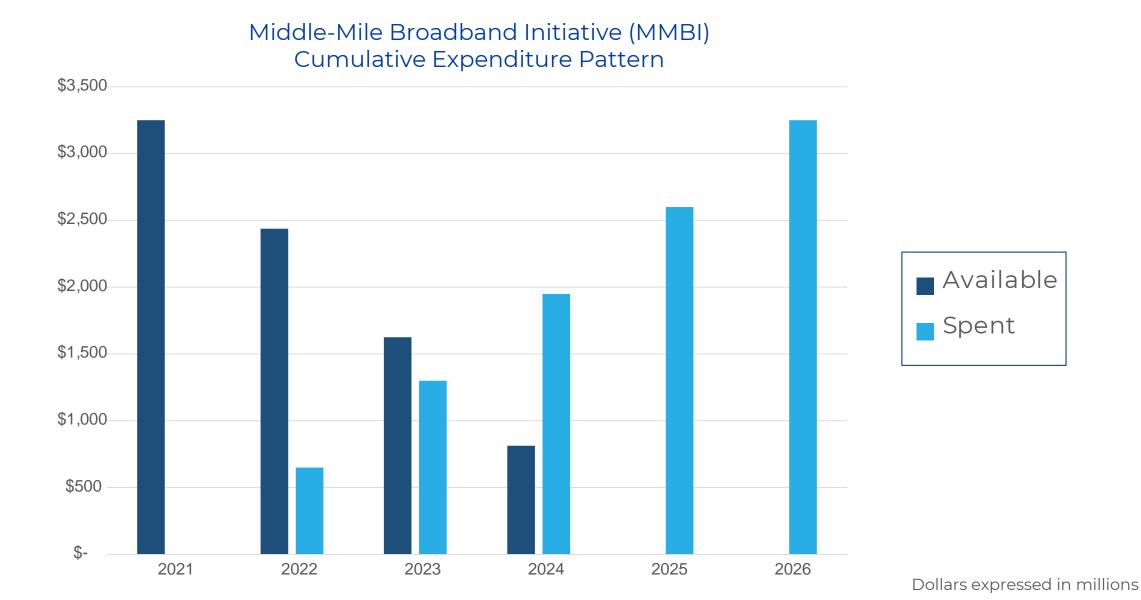
Build the network expeditiously, leveraging existing infrastructure, networks, and construction projects, where feasible.

Prioritize connectivity to unserved and underserved communities, including community institutions.

Middle-Mile Broadband Initiative Timeline



Expenditure Plan



Federal Funding Rules

The \$3.25 billion MMBI project is funded entirely from American Rescue Plan Act (ARPA) funding.

- ARPA funds must be encumbered by December 2024.
- ARPA expenditures must be liquidated, and the MMBI project completed, by December 2026.
- The \$3.25 billion in ARPA funding is estimated to be enough to build approximately 6,000 miles of the 8,000-mile system. SB 156 provides for the remainder of the system to be developed using leases of existing infrastructure.

Project Approach Updates – Third Party Administrator

Erik Hunsinger

Vice President of Infrastructure GoldenStateNet

Presentation Overview

- Overview of Design Objectives, Factors, and Process
- Presentation of Statewide Middle-Mile Network Design
- State divided into 5 Development Regions
- Overview of topology and highlights for each Region
- Support for Optimization Process



Statewide Middle-Mile Network Design May 12, 2022



Design Process

- Analyzed extensive mapping resources to understand: existing technical and telecom assets, road and highway systems, topological factors, socioeconomic composition by region, broadband speeds (or lack thereof) by region, among other factors.
- Used CPUC middle-mile recommendation routes as anchors for most route solutions adding regional rings.
- Engaged with a diverse set of community groups to understand needs, requirements, existing assets, and potential opportunities.
- Engaged service providers (carriers, vendors, ISPs, etc) to examine potential solution sets.
- Integrated proposed 18 projects into the initial statewide network recommendation.
- Identified regions where the unserved population is >50 miles from current design to build fiber paths where feasible.
- Estimated the cost for building proposed routes in preparation for an optimization analysis.



Design Factors

- Primarily utilize new fiber-optic cable construction where feasible (Caltrans Right of Way).
- Seek joint build partnerships to reduce costs to the state and to partners.
- Use long-term Dark Fiber IRUs where appropriate to reduce cost, time to service, and to add resiliency.
- Align to organizations with existing regional, state, and federal broadband infrastructure funding to maximize investments, e.g. CASF-funded organizations.
- Aim for "early wins" to meet expectations of residents, policymakers, and other stakeholders.
- Utilize well-established best practices in network design principles, protocols, engineering, and operation.



Support for Optimization Process

Inform CDT to enable partner-based optimization and application of available budget. This includes:

- Providing comprehensive information to drive decision-making for Build vs. Buy vs. Joint Build
- Working with CDT to determine contingency reserve percentage against \$3.2B budget (typically 10-20%)

Steps to achieving optimization:

- Show total routes, mileage, and projected cost of statewide Middle Mile Network that would be 100% newly-built fiber,
 including required equipment and facilities
- Determine newly-built routes that are no regrets and most feasible within available budget
- Determine routes for dark fiber IRUs within remaining budget
- In addition, determine joint-build portions of MM network within remaining budget

Final CDT decisions for all MM network segments within \$3.2B budget (minus contingency):

- 18 Initial Projects
- Newly built fiber routes
- Dark Fiber IRU routes

- Joint build routes
- Equipment and facilities

STATEWIDE MAP

Region 1: Caltrans Districts 1, 2, 3

Region 2: Caltrans Districts 4, 9 (portion), 10

Region 3: Caltrans Districts 5, 6, 9 (portion)

Region 4: Caltrans Districts 7, 12

Region 5: Caltrans Districts 8, 11





REGION 1: KEY HIGHLIGHTS

Geographic/Environmental:

- Vastly underserved area of the state
- Prone to catastrophic outages, fire hazard zone

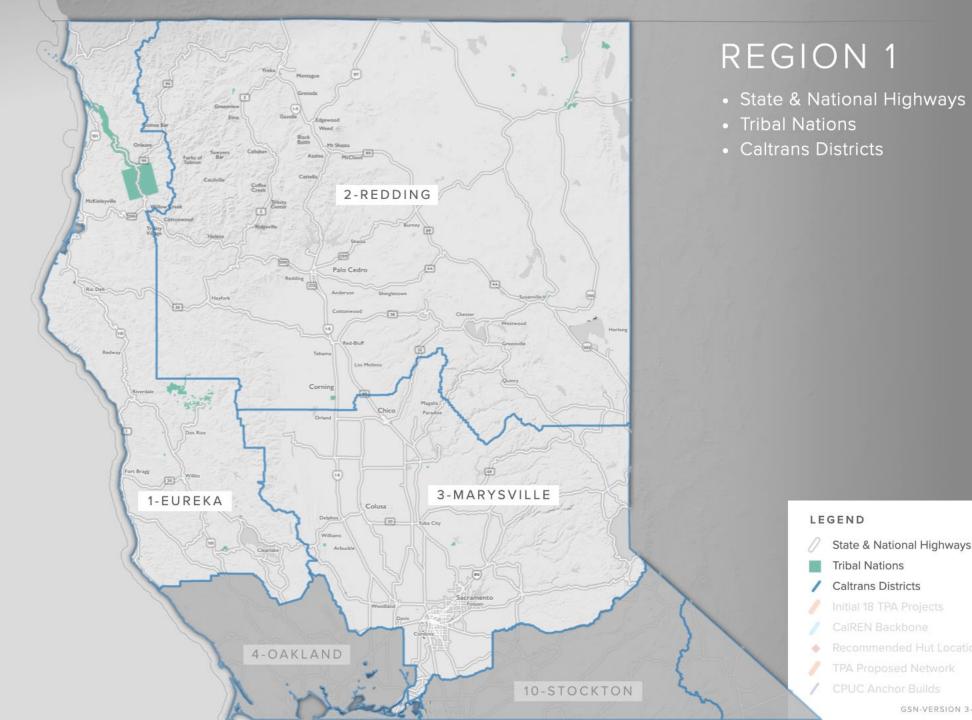
Population:

Includes California's two largest Tribal Nations: Hoopa Valley Tribe and Yurok Tribe

Technical/Business-related:

- First collaborative effort with a small local exchange carrier Siskiyou Telephone
- Opportunity for cooperation and collaboration with Tribal Nations to build resiliency and connectivity within the region.
- Minimal availability of existing fiber to support IRUs.





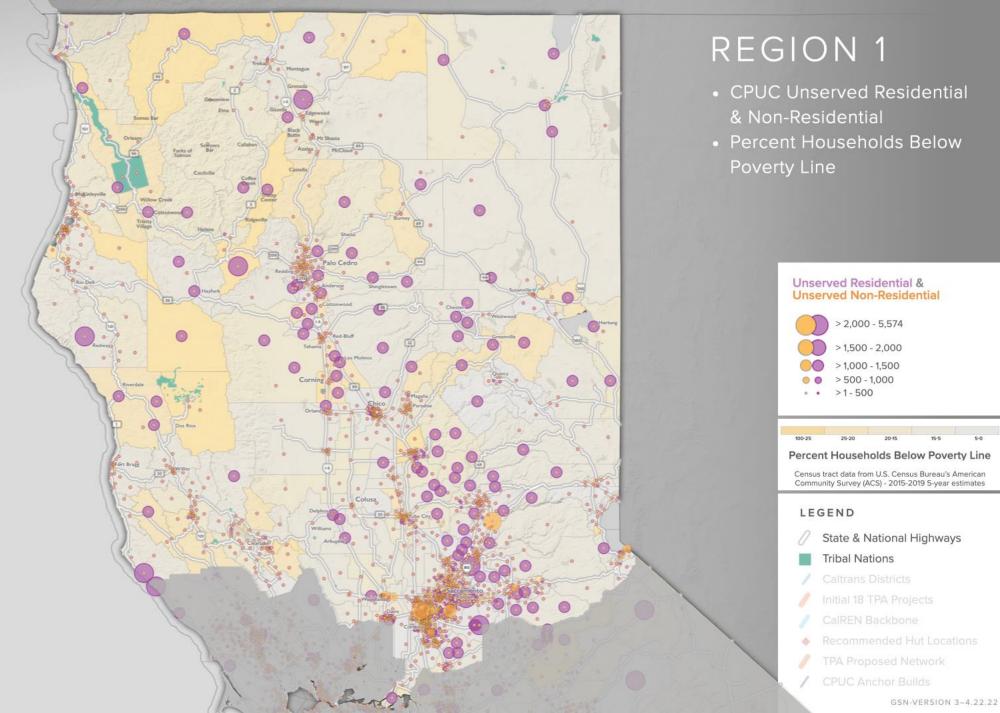
State & National Highways

GSN-VERSION 3-4.22.22

Tribal Nations Caltrans Districts



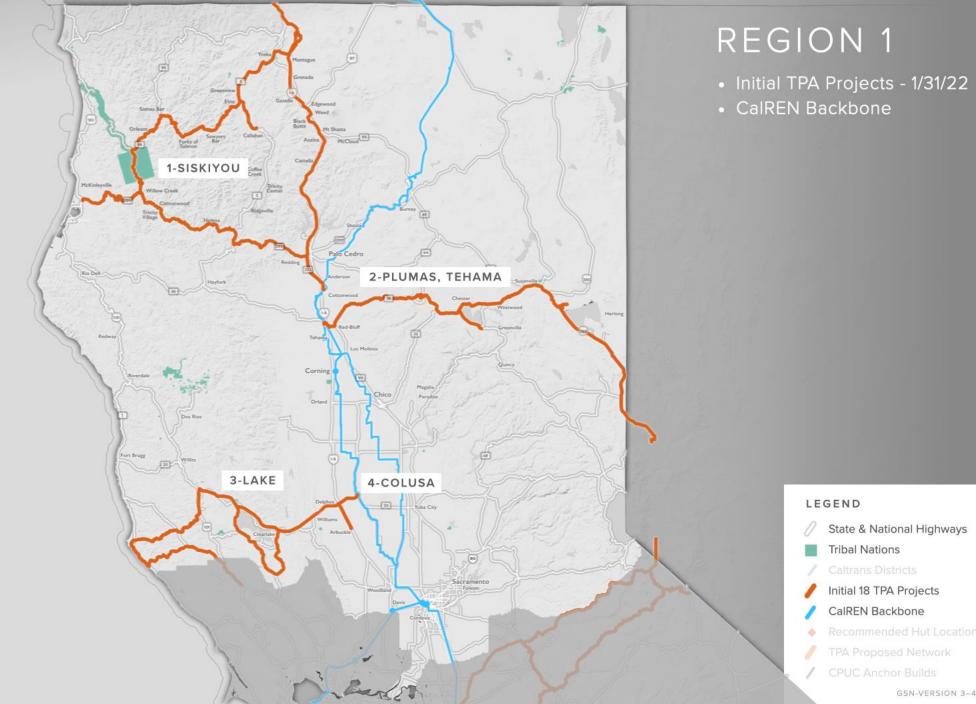






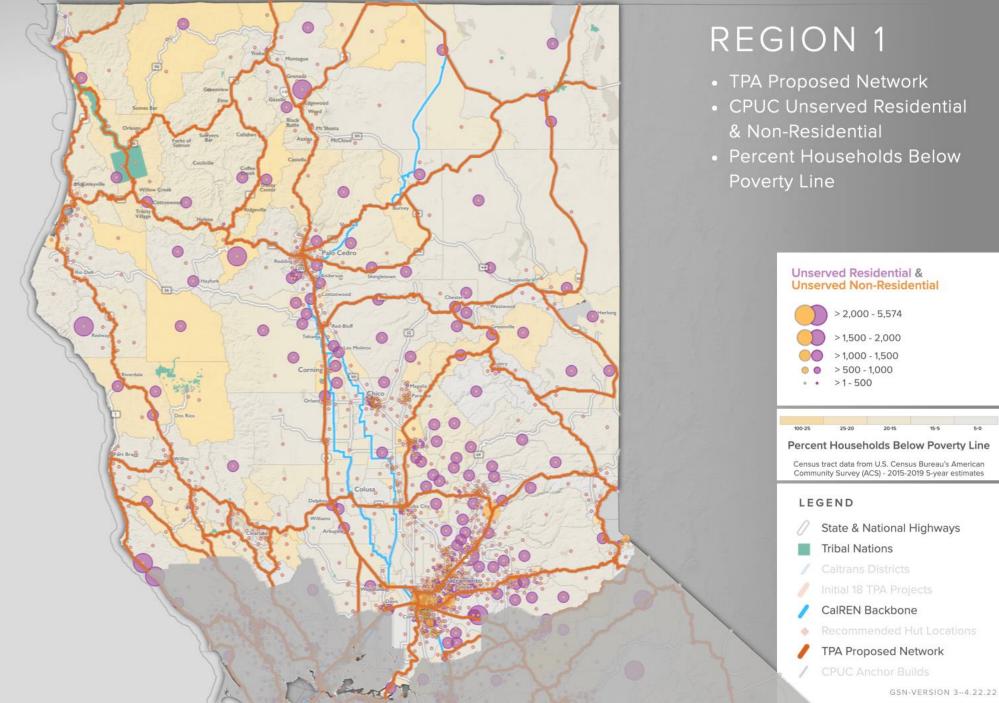


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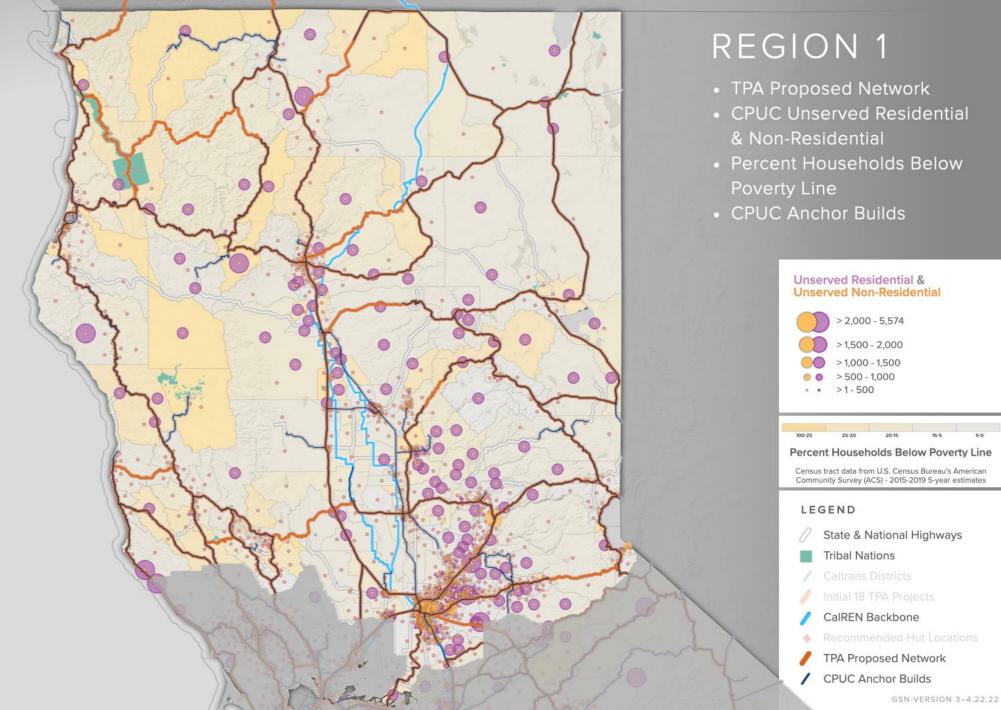
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REGION 2: KEY HIGHLIGHTS

Geographic/Environmental:

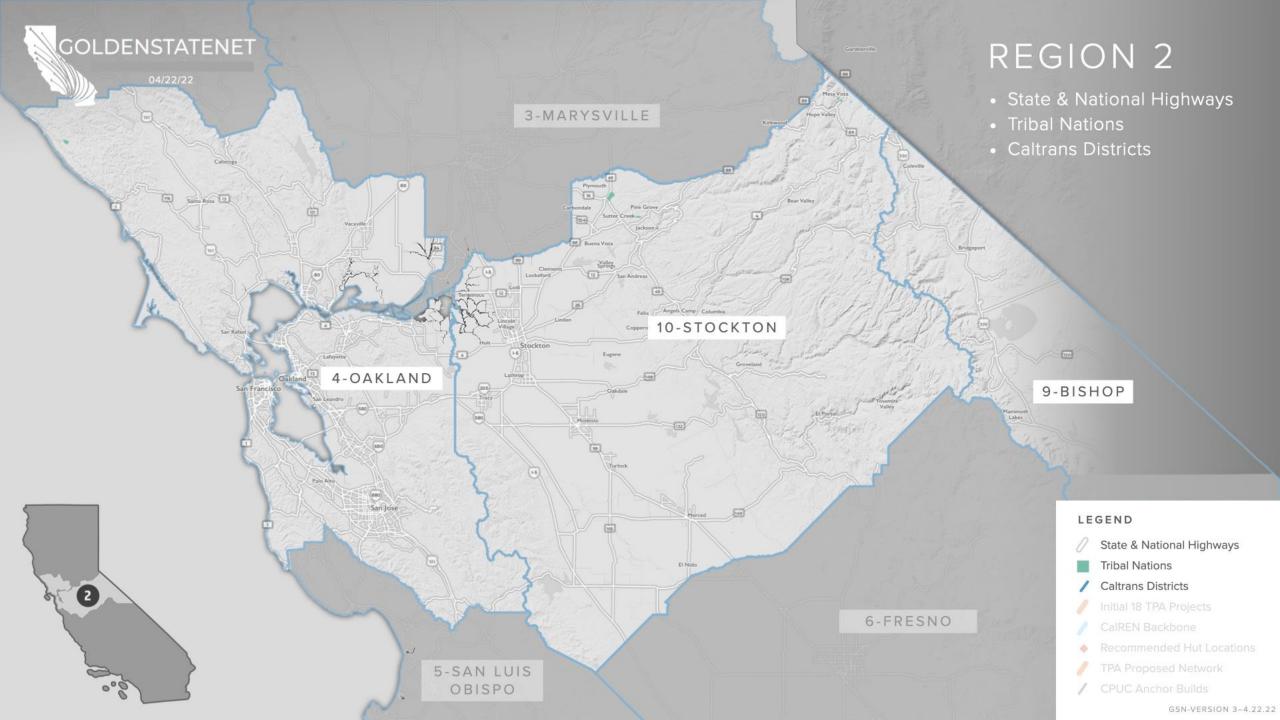
- Includes densely populated urban areas and sparsely populated mountainous regions.
- Certain areas considered high risk fire hazard zones.

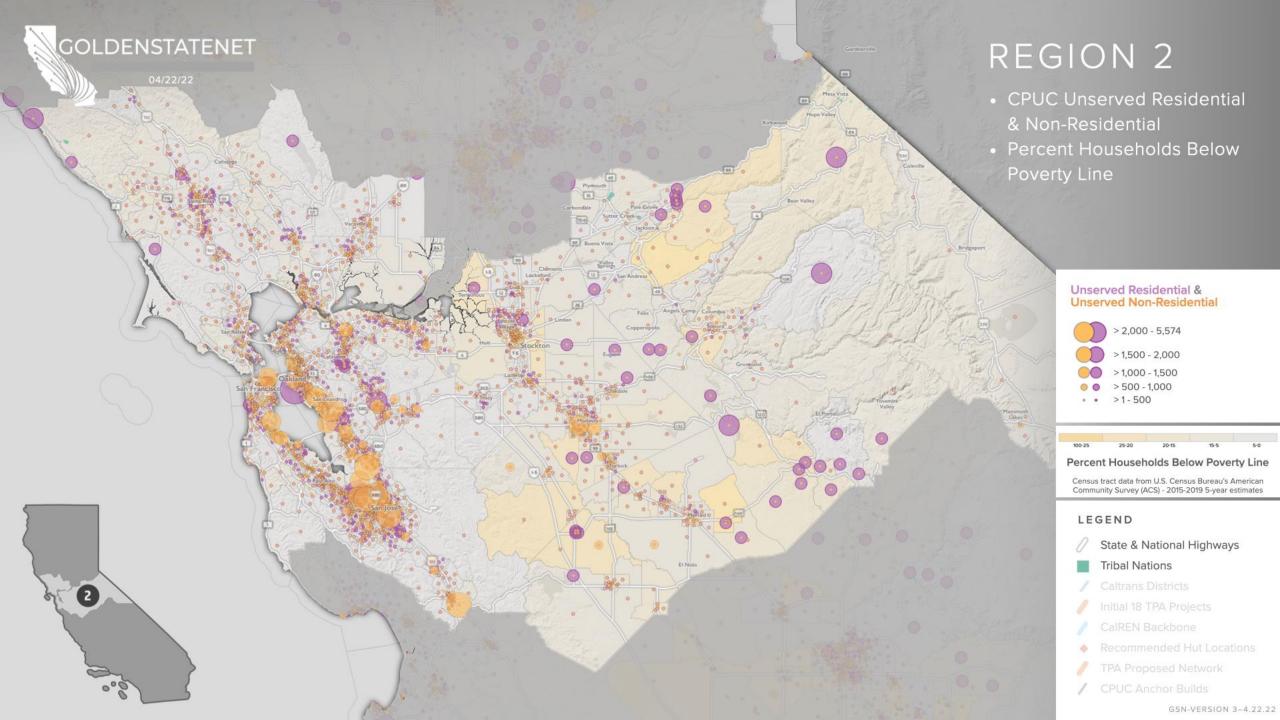
Population:

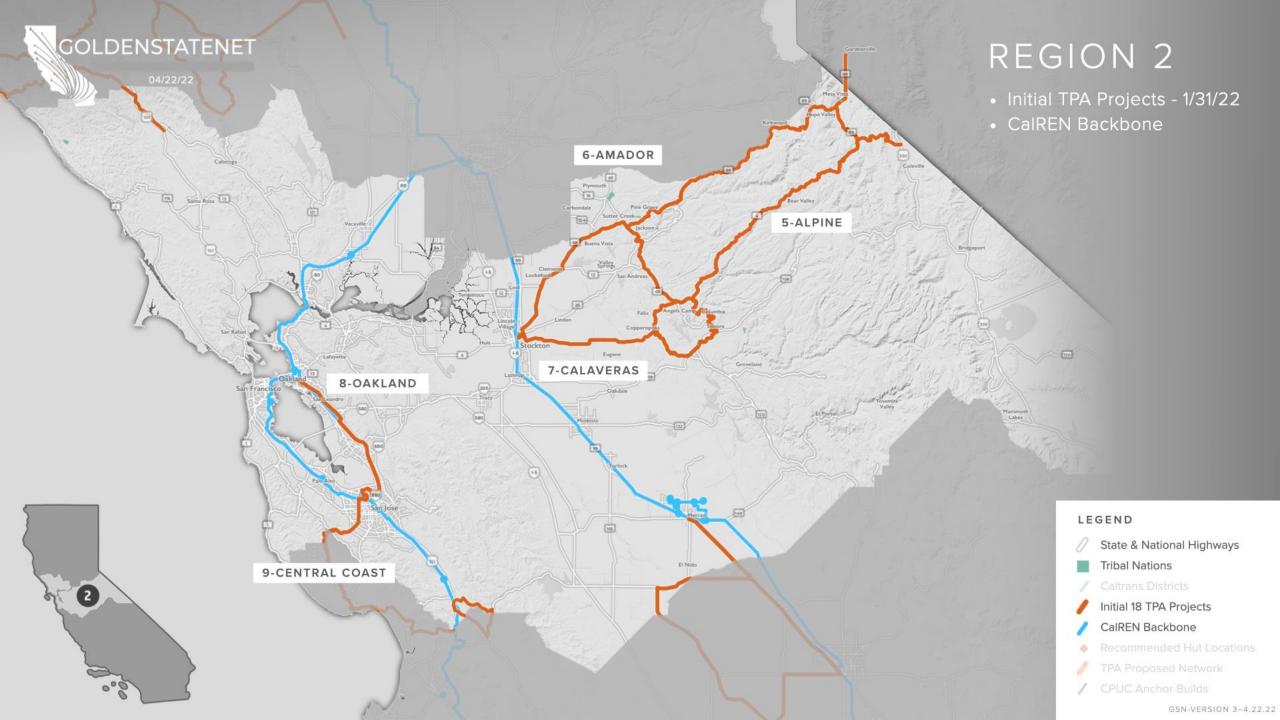
Service affordability will be key due to socioeconomic factors in parts of the region.

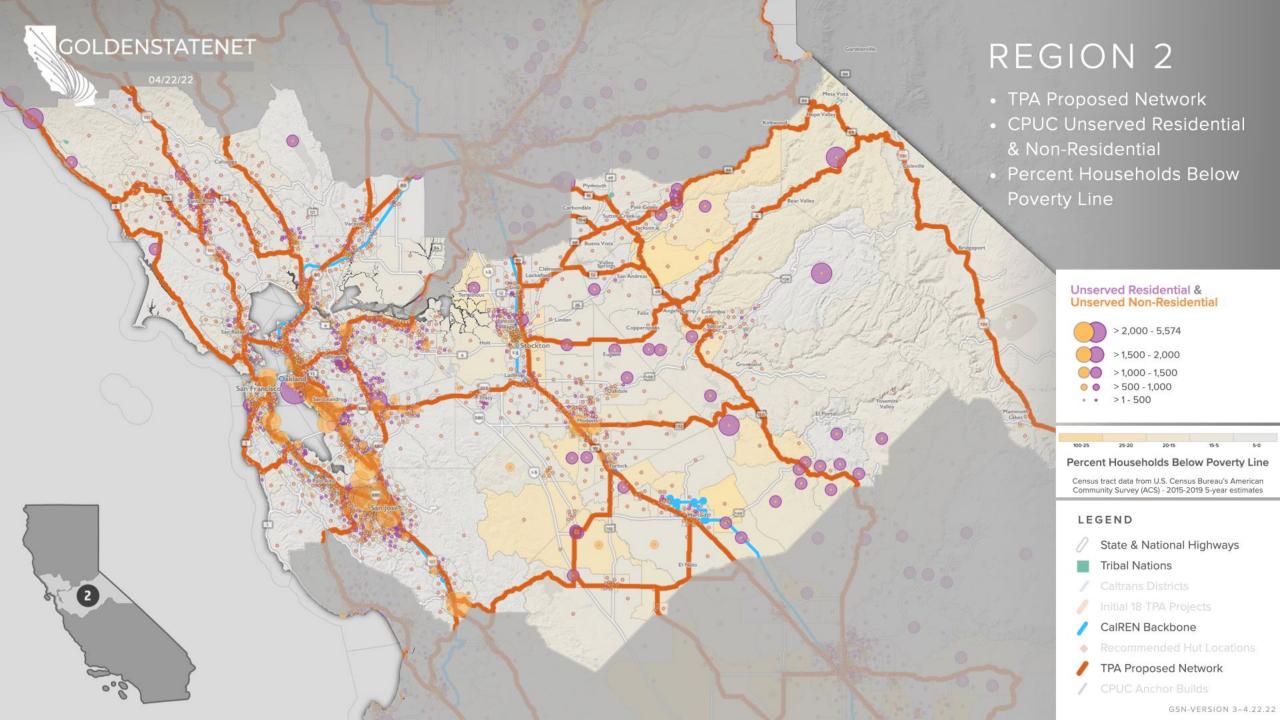
Technical/Business-related:

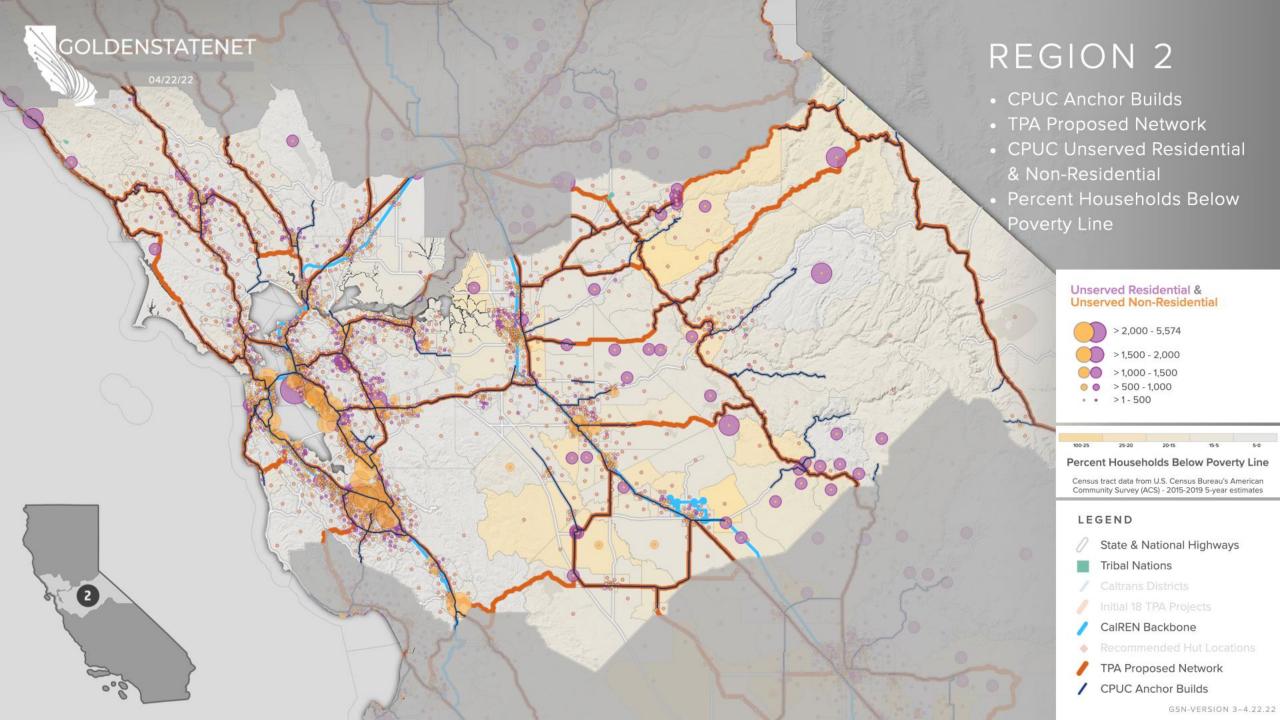
- Significant joint build opportunities.
- May require further analysis with federal partners on some routes.
- Varies from CPUC recommendations in a few locations.
- Eastern parts of the region lack Caltrans ROW and may require further evaluation.













REGION 3: KEY HIGHLIGHTS

Geographic/Environmental:

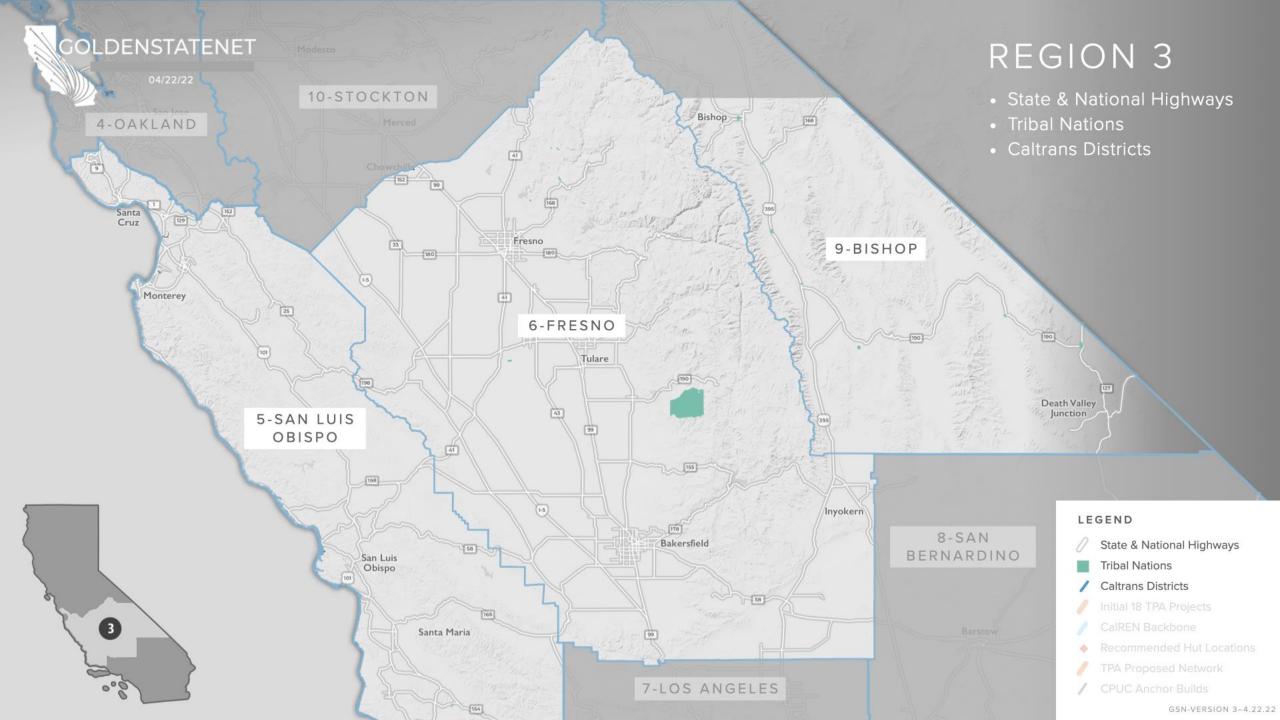
- Includes densely populated urban areas and sparsely populated mountainous regions.
- Certain areas considered high risk fire hazard zones.

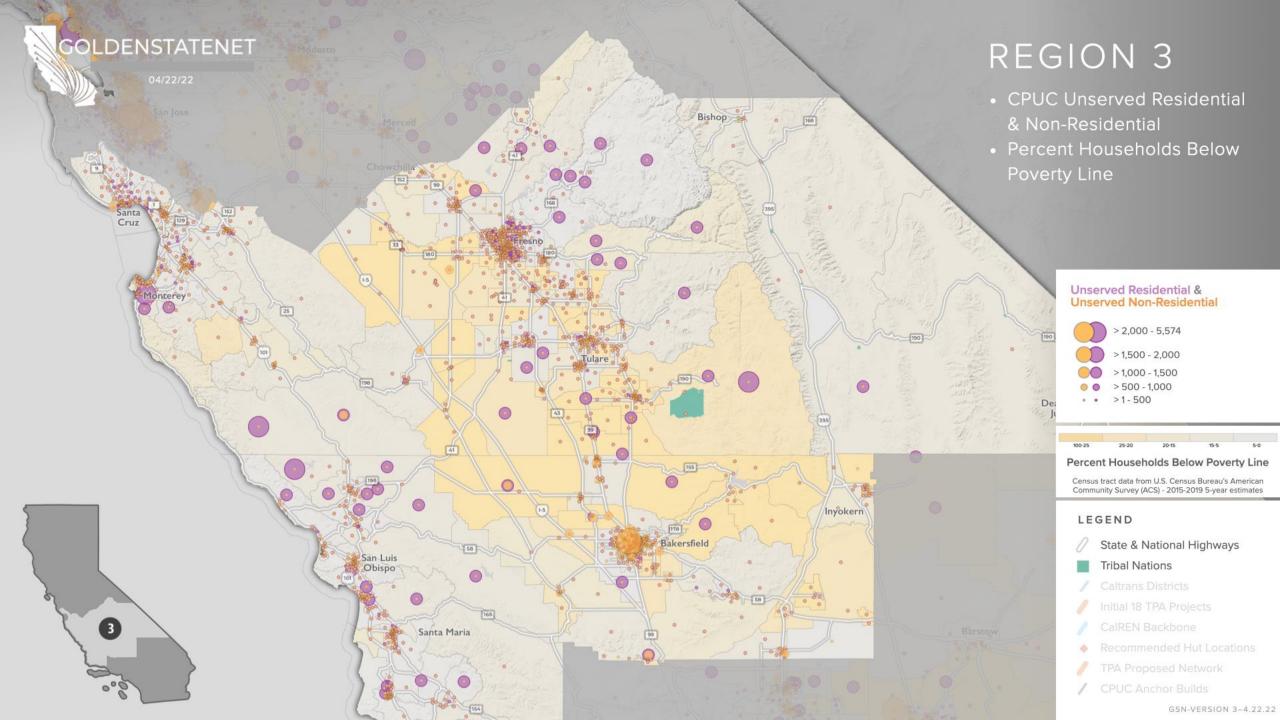
Population:

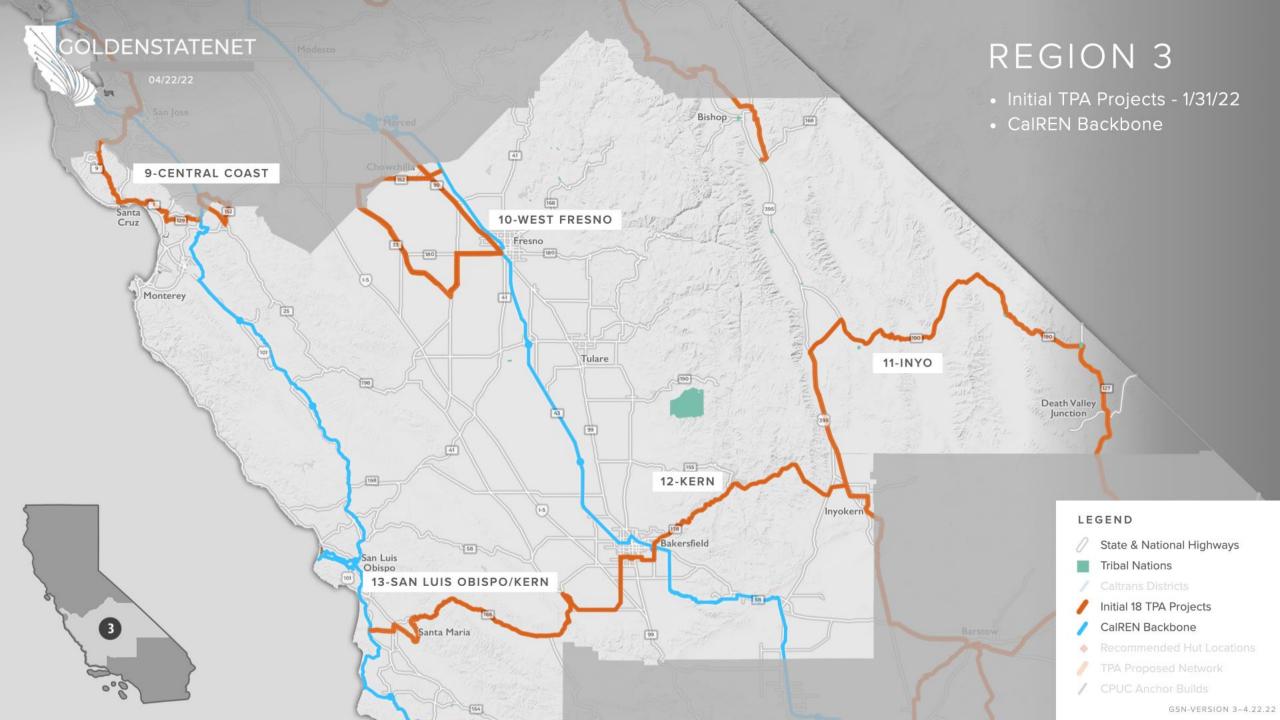
- Forthcoming opportunities for Tule River Tribal Nation with ongoing engagement.
- Service affordability will be key due to socioeconomic factors in parts of the region.

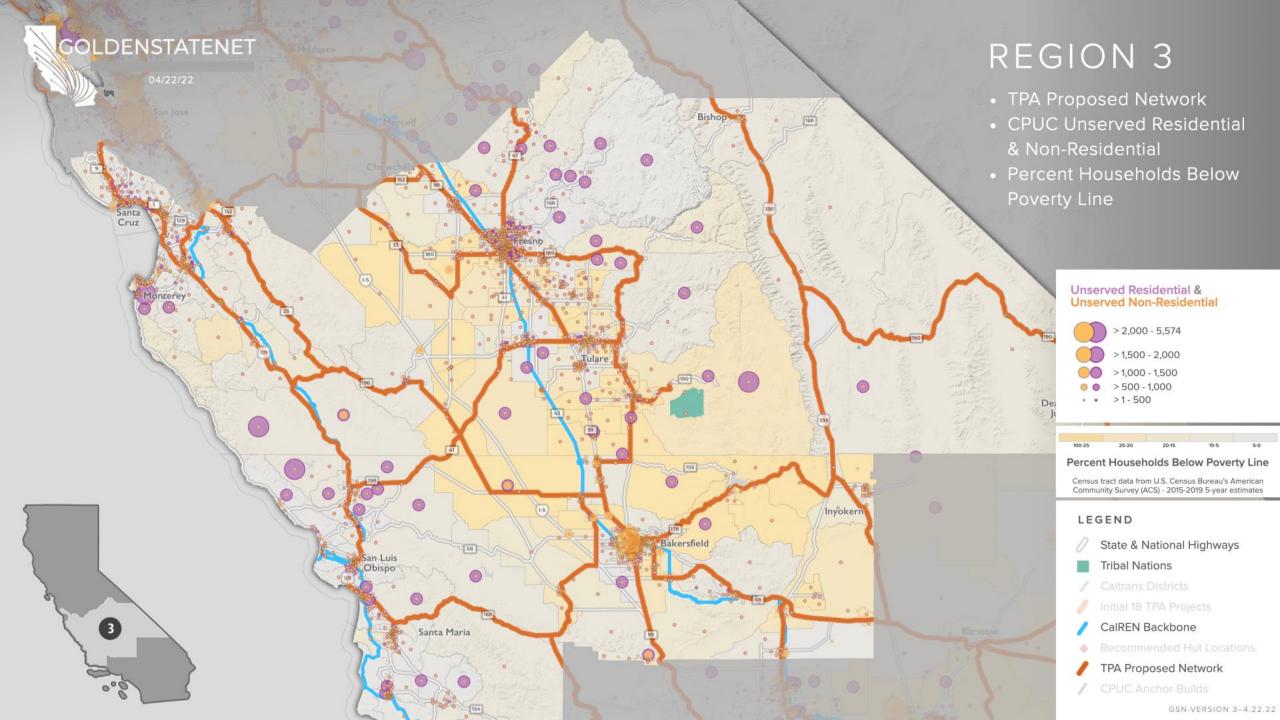
Technical/Business-related:

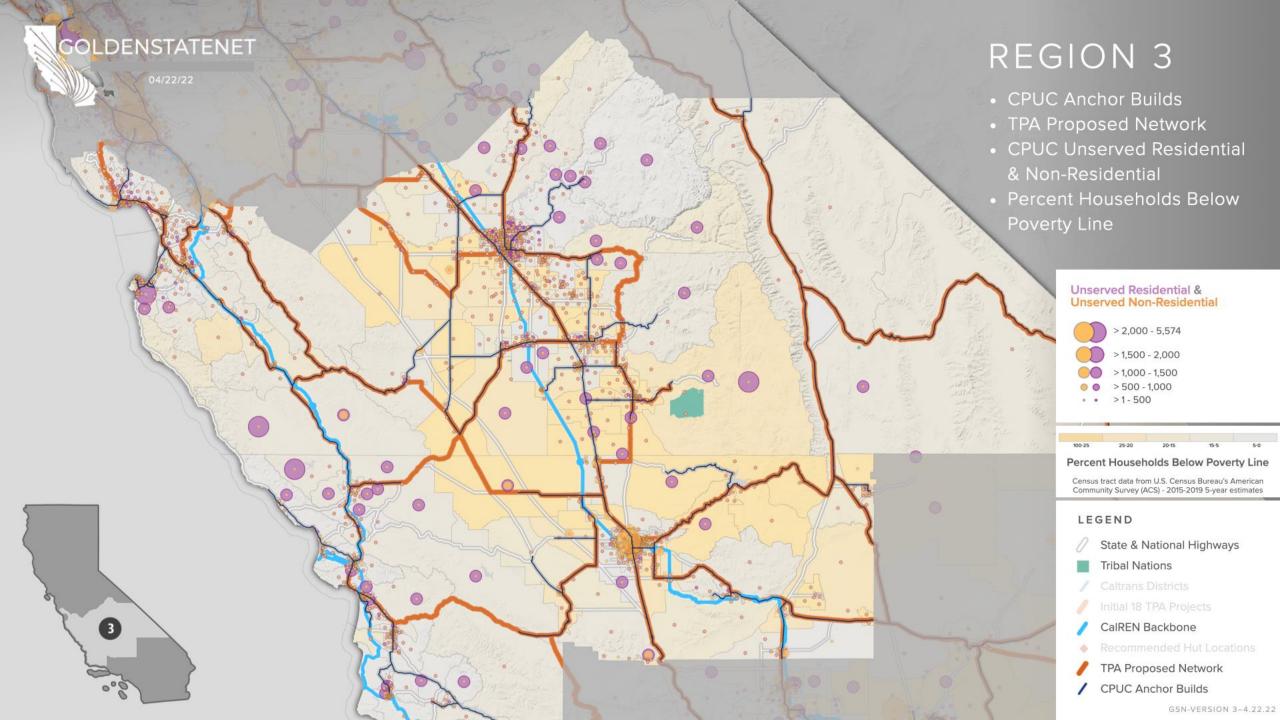
- Significant joint build opportunities.
- Existing commercial infrastructure for IRU potential solutions.
- Eastern parts of the region lack Caltrans ROW and may require further evaluation.













REGION 4: KEY HIGHLIGHTS

Geographic/Environmental:

- Portions of region are densely populated urban areas.
- Further analysis required for Catalina Island.

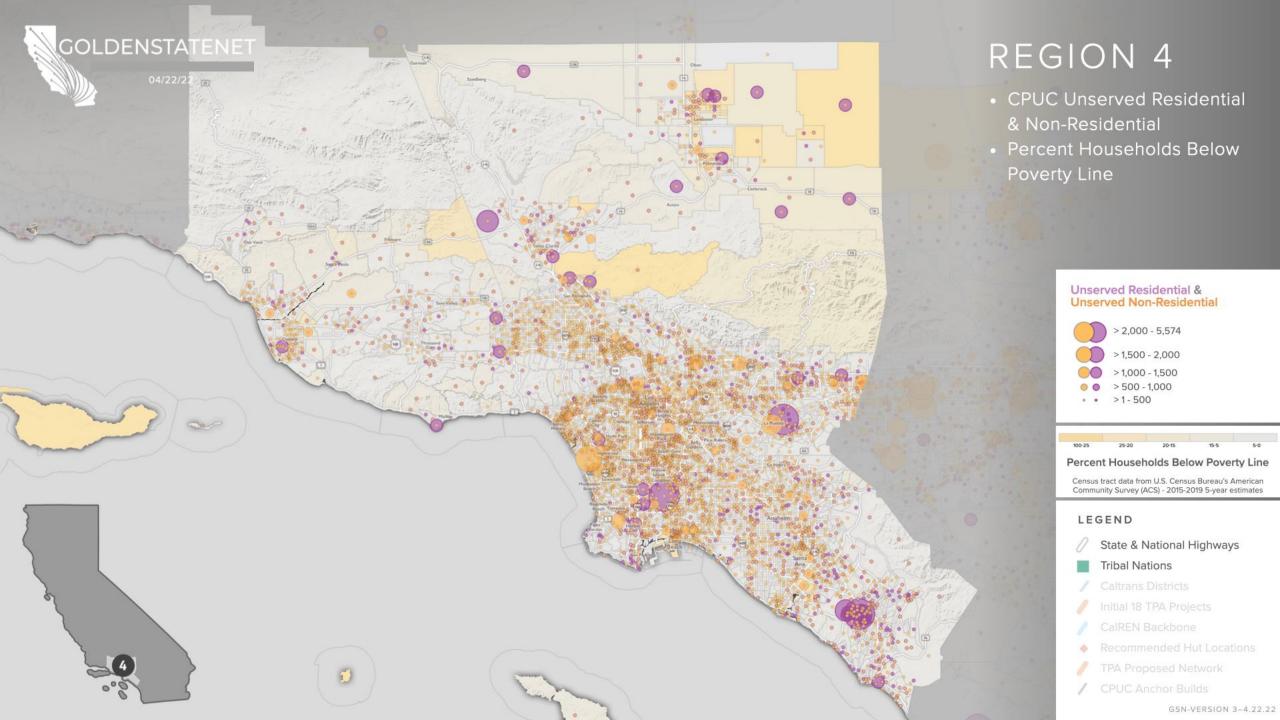
Population:

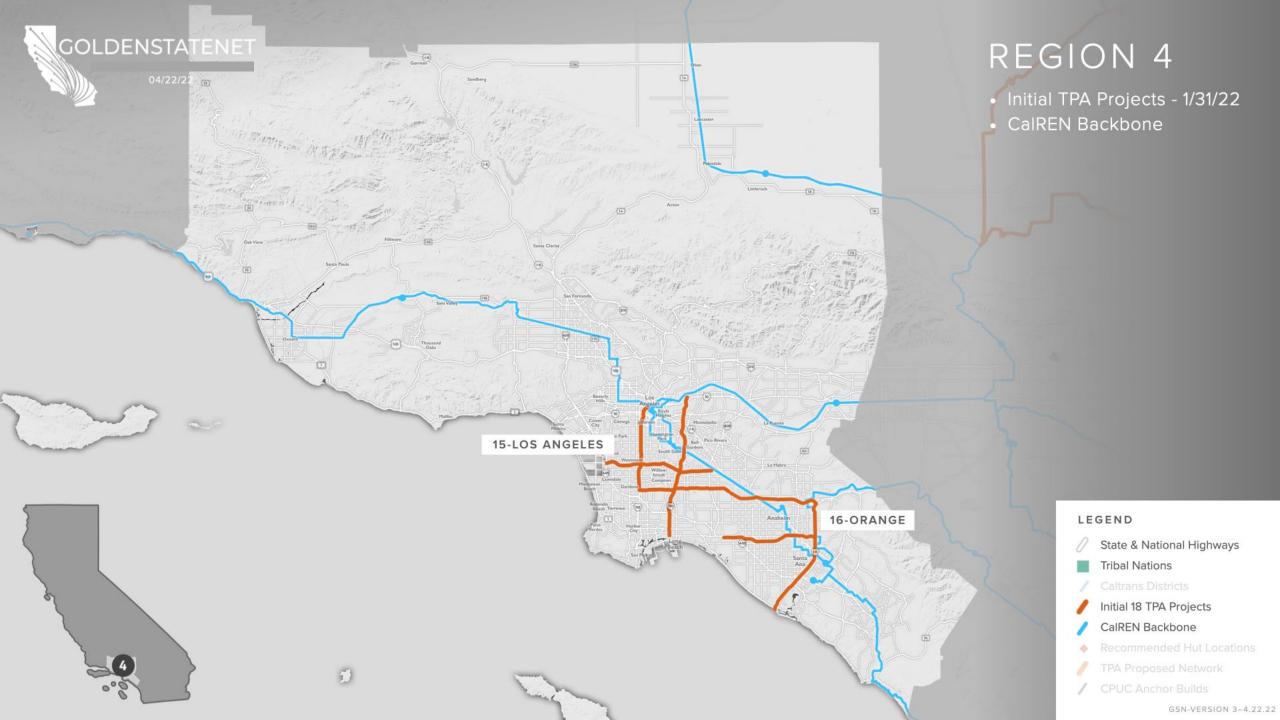
Service affordability will be key due to socioeconomic factors in parts of the region.

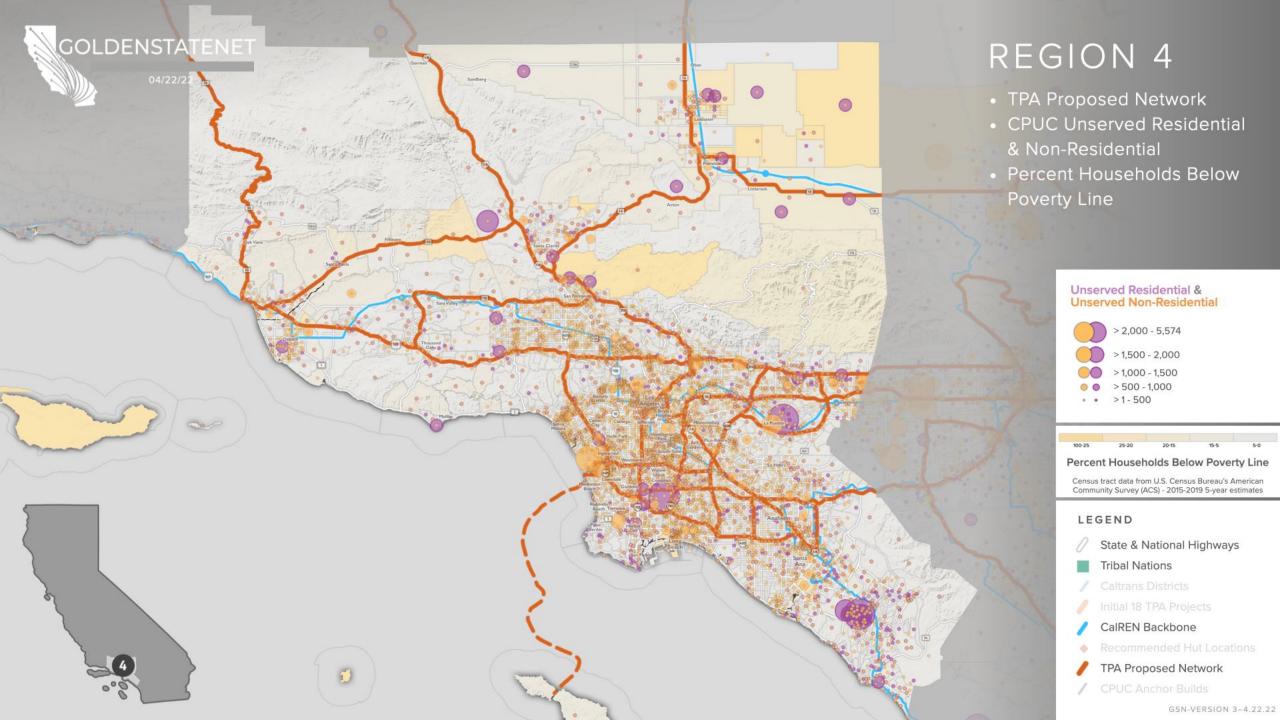
Technical/Business-related:

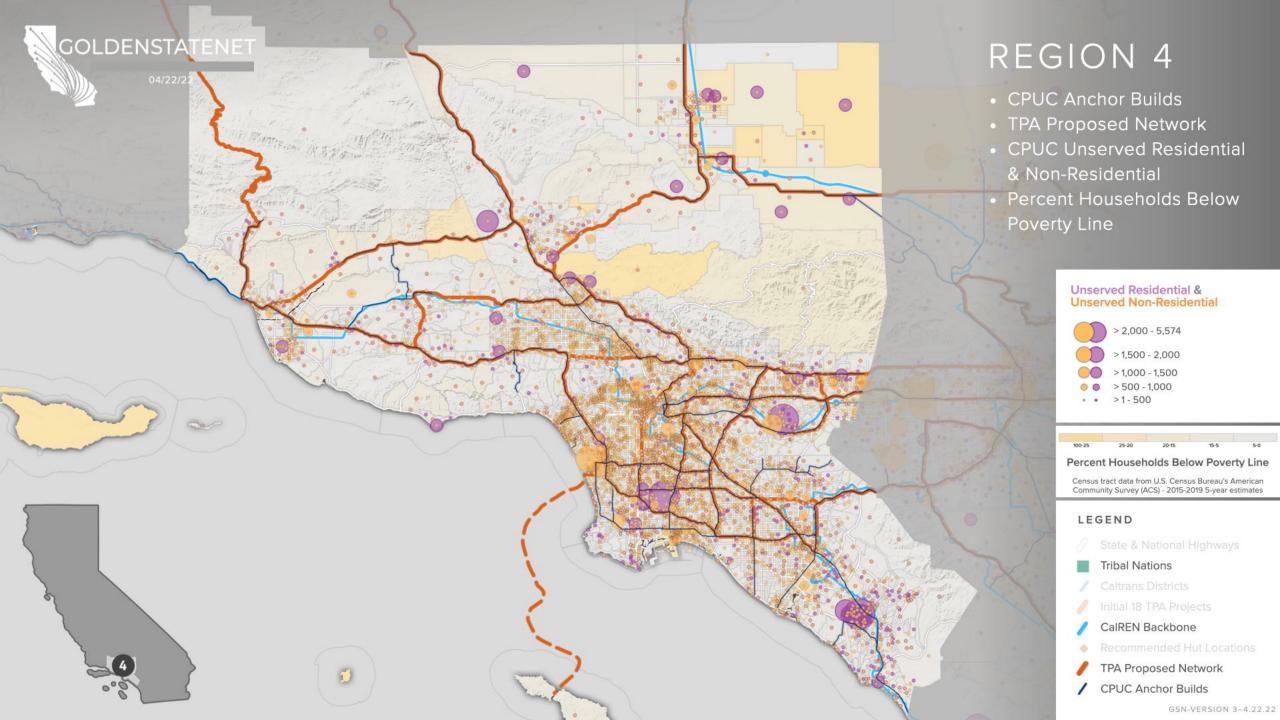
- Significant joint build opportunities.
- Multiple telecom carriers and considerable existing fiber in some areas create opportunities for IRU alternatives.
- Northeast area of the region lacks Caltrans ROW and may require further evaluation.













REGION 5: KEY HIGHLIGHTS

Geographic/Environmental:

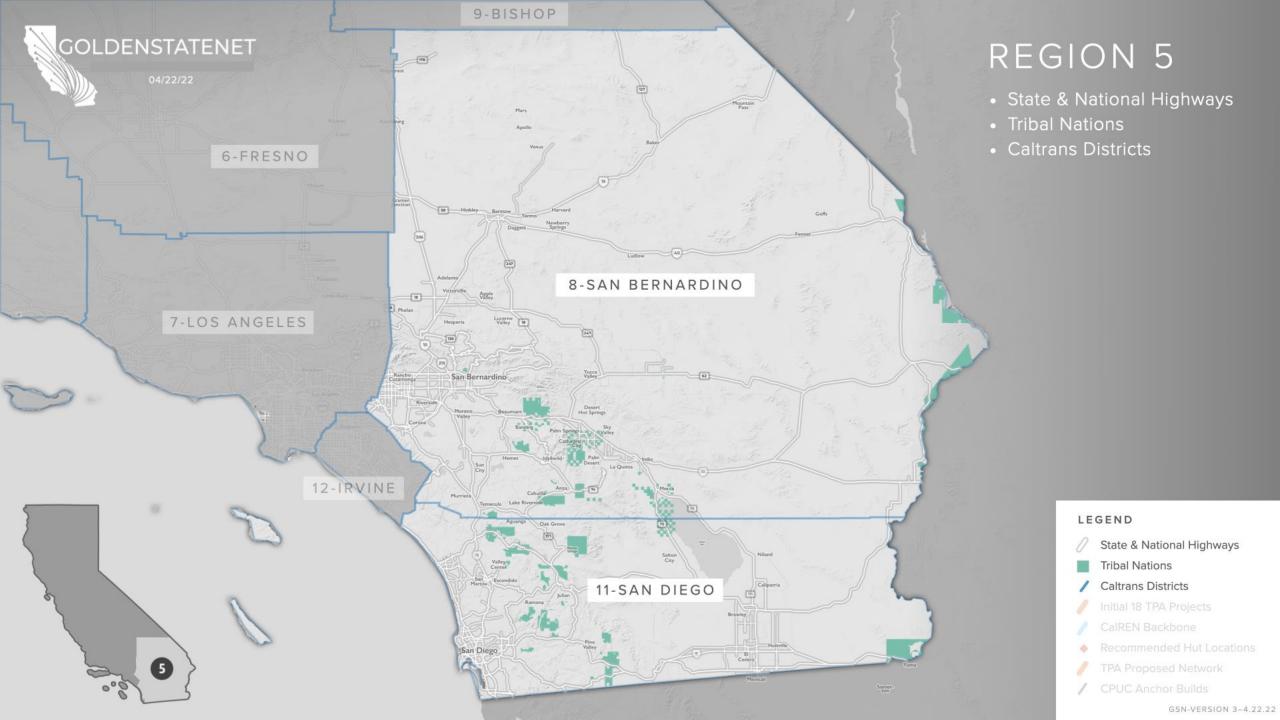
Includes densely populated urban areas as well as desert regions prone to extreme heat.

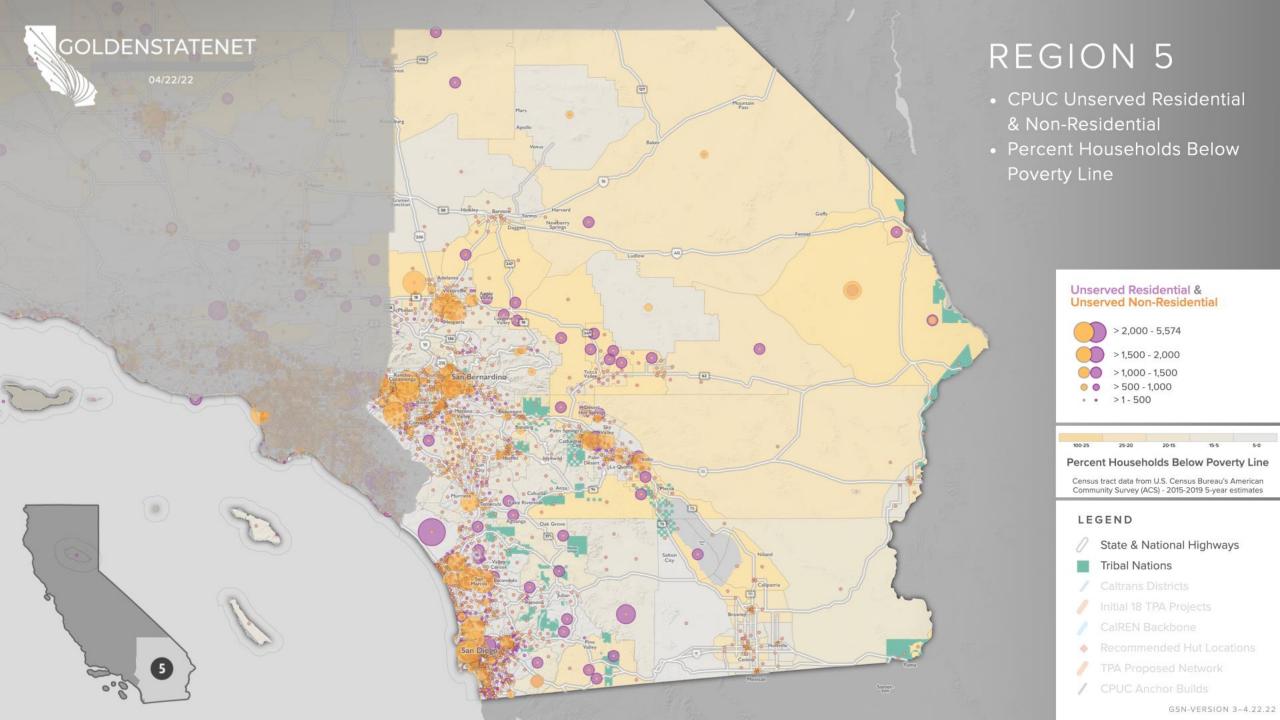
Population:

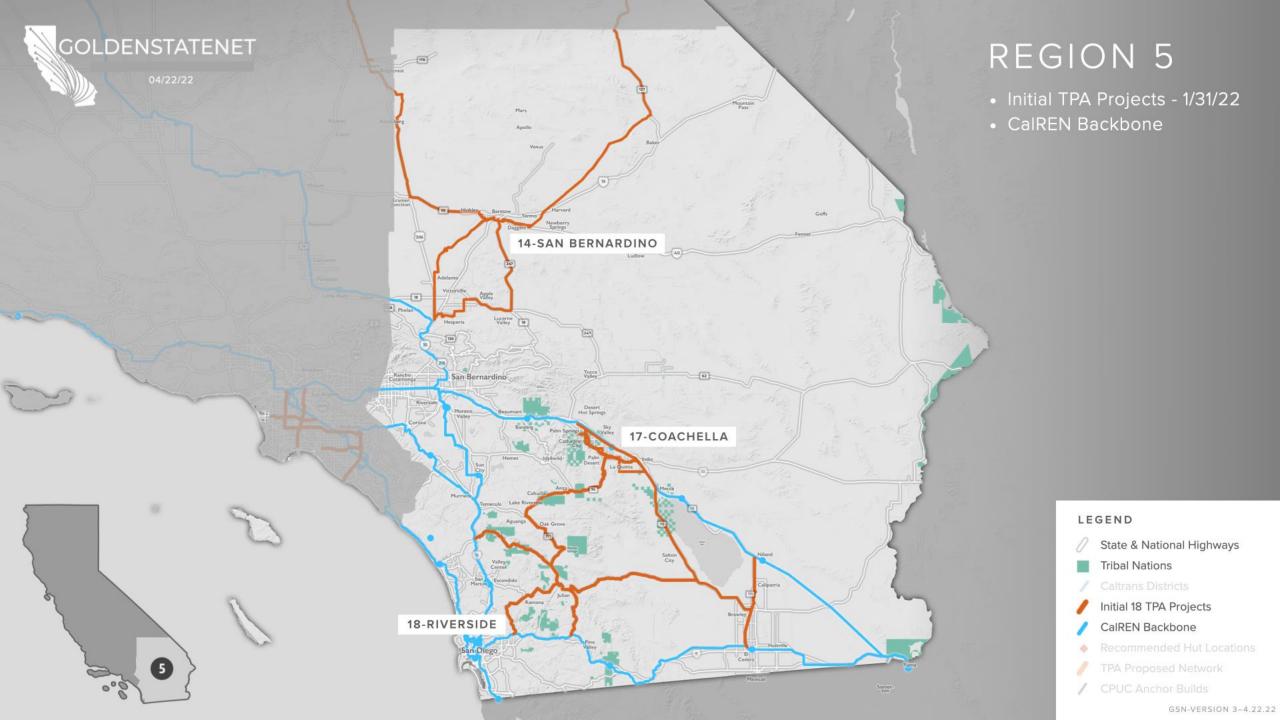
- Significant number of Tribal Nations in the region will be positively impacted by suggested routes.
- Service affordability will be key due to socioeconomic factors in parts of the region.

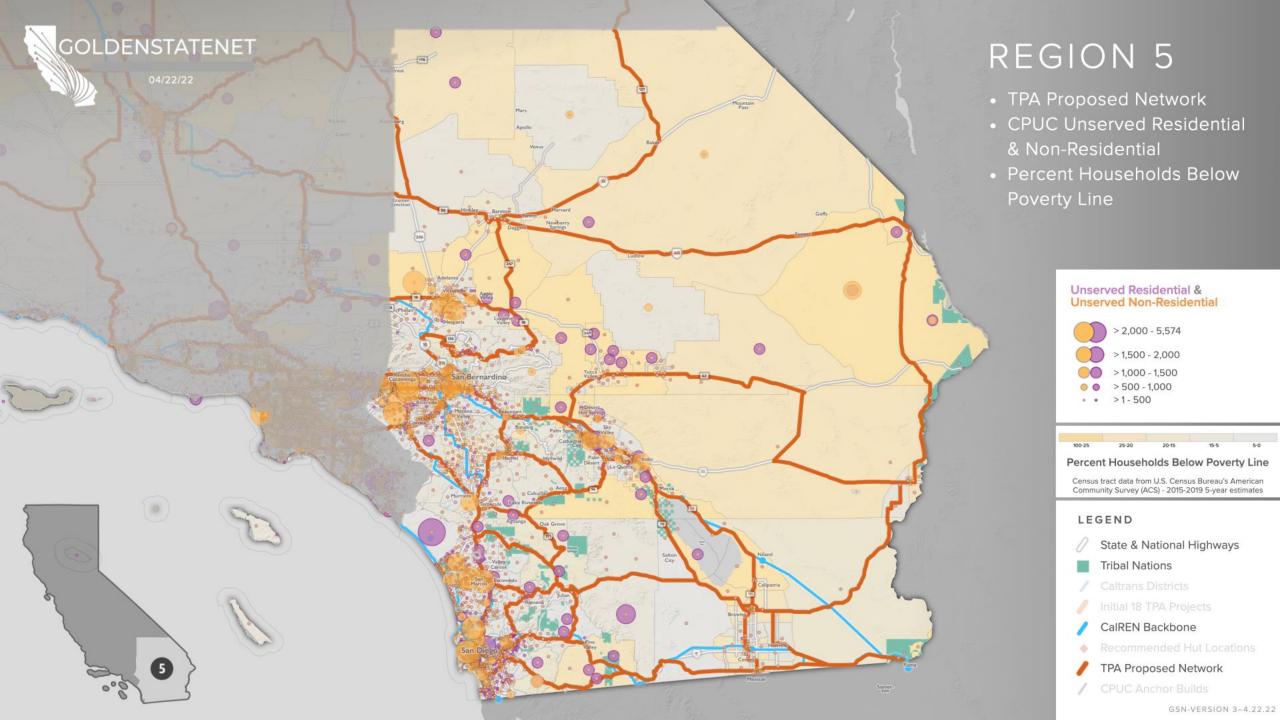
Technical/Business-related:

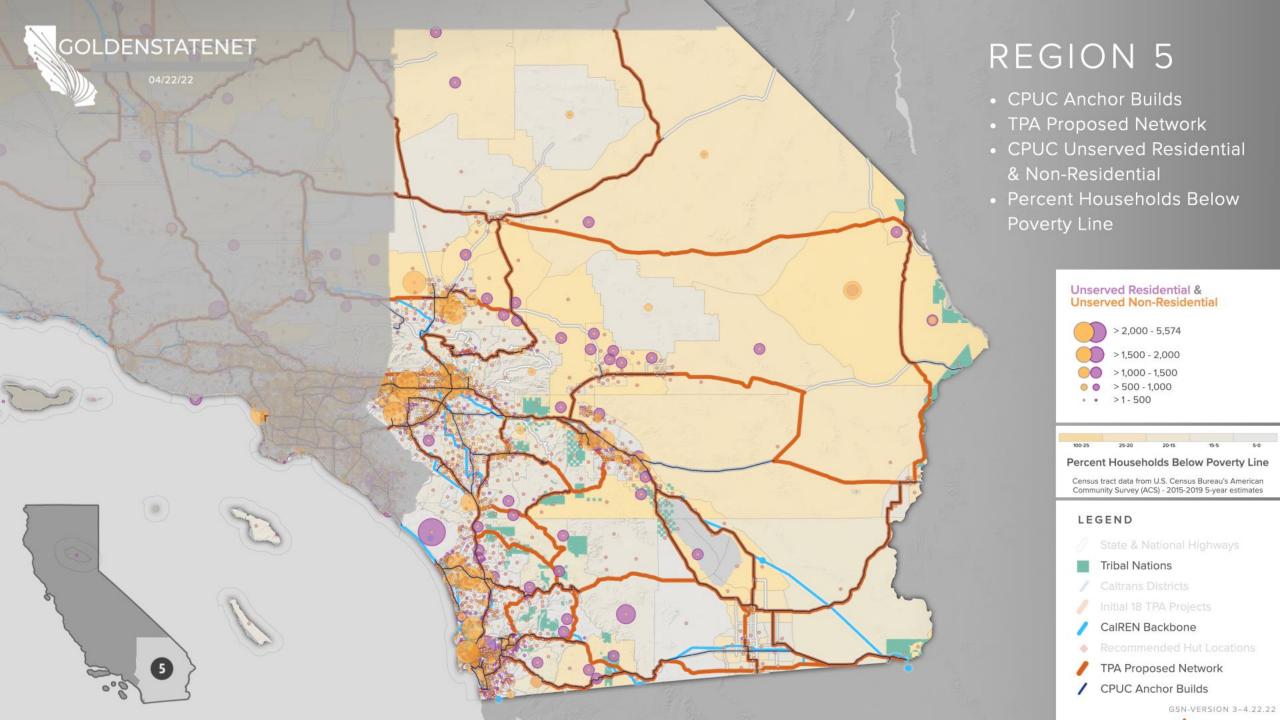
- Significant opportunities to connect to other major Internet hubs in the West.
- Multiple telecom carriers and considerable existing fiber in some areas create opportunities for IRU alternatives.















OVERVIEW MAP

• TPA Proposed Network

Mark Monroe

Deputy Director, Middle-Mile Broadband Initiative California Department of Technology

Next Steps

Important Next Step

- CDT plans to complete its review and analysis of this map.
- CDT will provide a final initial "build" map to Caltrans to begin its systemwide preconstruction work.
- Market Sounding

Benefits:

- Caltrans can start the clock on the 18-24 months of preconstruction work needed before construction can begin.
- Caltrans can develop and refine its cost estimates to inform build and lease decisions.

Going forward:

- GSN will continue developing a map of existing infrastructure that can be leased using IRUs.
- CDT will determine how much the state can afford to build and how much will need to be leased.

Last-Mile Broadband Initiative Update

Robert Osborn

Director, Communications Division
California Public Utilities Commission

2021 Broadband Investments Background on CPUC Responsibilities



Last Mile Initiatives and Supporting Programs

- 1. Broadband Technical Assistance \$50 million total**
 - Purpose: Help prepare local governments & Tribes for broadband infrastructure investments.
- 2. Loan Loss Reserve \$750 million
 - Purpose: enable local governments & nonprofits to secure financing for broadband infrastructure.
- 3. Federal Funding Account \$ 2 billion
 - Purpose: Funding for last-mile broadband infrastructure projects.
- 4. California Advanced Services Fund (CASF) ~up to \$150 million per year
 - Purpose: assist with broadband infrastructure deployment & adoption in public housing,
 Tribes, & unserved areas.

Middle-Mile Locations

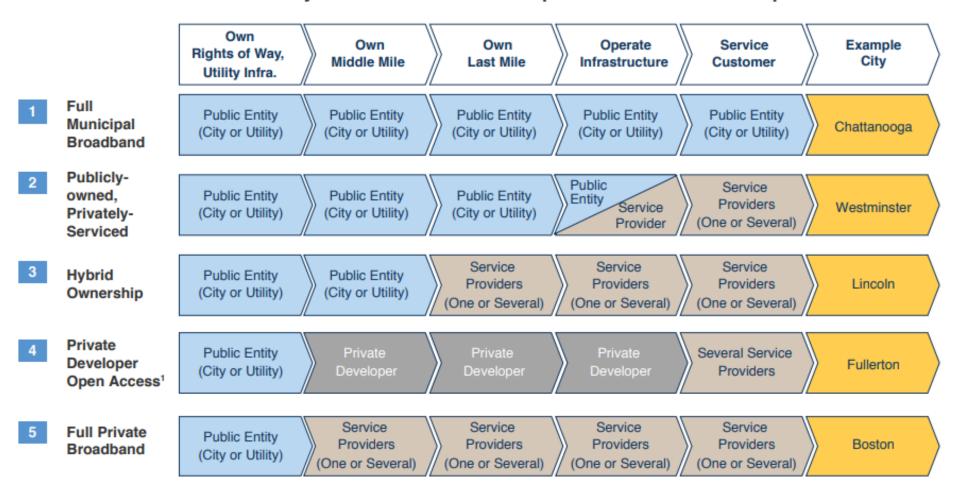
- Identify routes & priority areas using public process.
- Report mapping & analysis to the California Department of Technology for use in program implementation & project development.

^{*} May be increased pursuant to Public Utilities Code Section 281(d)(4)

^{**} Included in \$2 billion Last-Mile Initiative

Public Broadband Models

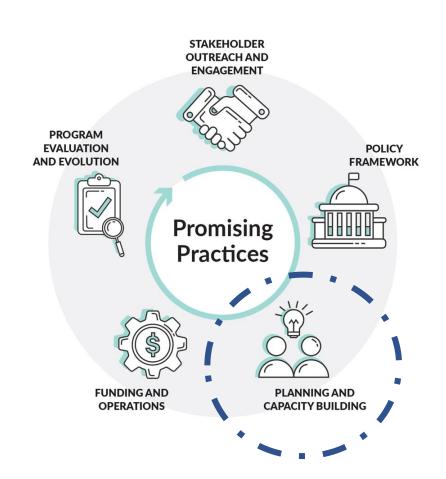
City Main Business Model Options for Broadband Expansion



Note: 1) Private Developer is defined as private company that builds, owns and operates the network infrastructure and offers open access to it to several retail SPs that provide service on the top

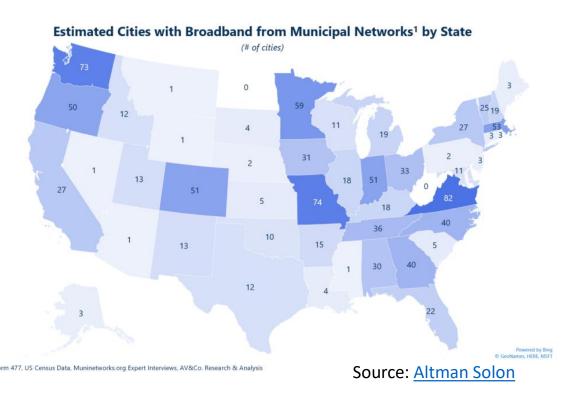
Local Agency Technical Assistance

- \$50 million for technical assistance grants to local agencies and Tribes.
- Funding can be used for public entity or consultant costs to create Joint Powers Authorities, and for other costs to prepare to deploy broadband infrastructure, including for environmental permitting, engineering, and design activities.
- Timing Applications June-July 2022.
- Actions identify your needs and prepare to apply May through July 2022.
- More information



Loan Loss Reserve Fund

- \$750 million Loan Loss Reserve Fund to support development of public broadband networks.
 - A form of credit enhancement, or a type of insurance, that helps lenders control for the risk that loans will not be repaid. This new funding will provide collateral to local governments for bond financing.
 - The US Department of Energy operates a similar loan loss reserve program.
- CPUC <u>Rulemaking 20-08-021</u>
- **Timing** proposal for input by August 2022, comments and workshops to follow.
- Actions engage in the implementation and consider becoming a party to the proceeding to inform program rules that meet your needs.

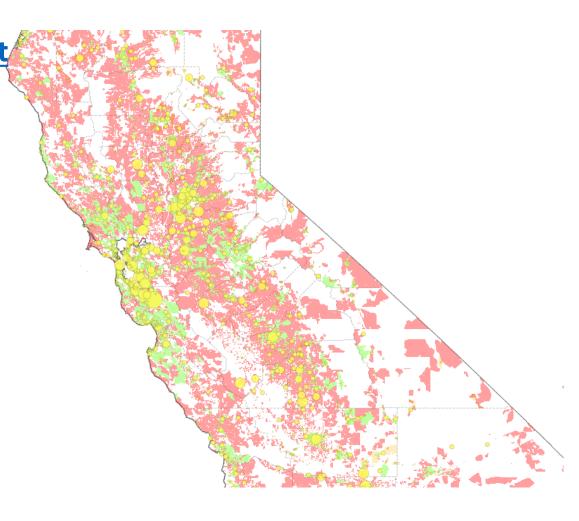


Last Mile Federal Funding Account

• The new \$2 billion <u>Federal Funding Account</u> is for last-mile broadband infrastructure grants.

• These funds must be encumbered by the **2025** federal deadline, and spent (i.e., projects built) before **2027**.

- **Timing** Targeting applications before July 2022.
- Action get ready to apply or to support those who will apply to provide service to your constituencies.



Adoption, Consortia, & Infrastructure Broadband

- Grants

 Broadband Adoption, Consortia, and Infrastructure grants are supported by the California Advanced Services Fund (CASF) broadband grant program. Up to \$150 million a year funded by a surcharge on telephone bills
 - Broadband Adoption Grants
 - Broadband Consortia Grants
 - Broadband Infrastructure Grants
 - **Timing** updated rules for Adoption, Consortia, and Housing as soon as May 19; applications in June/July. Proposal on Infrastructure expected before end of second quarter 2022.

Action

- Engage on the implementation of the Broadband **Adoption**, **Consortia**, and **Public Housing** Program Updates in Rulemaking 20-08-021.
 - Become a party to the Rulemaking.
 - Join the mailing list for funding availability (email CASF Adoption@cpuc.ca.gov)
- Watch for the CASF budget allocation of amounts across the subaccounts (Adoption, Consortia, Infrastructure, and Public Housing)

Broadband Public Housing Account

- The revamped <u>Broadband Public Housing</u>
 <u>Account Grants</u> will provide grants to
 connect qualifying low-income housing,
 such as publicly supported housing
 communities, with infrastructure to <u>provide</u>
 free internet service.
- **Timing** Targeting applications in June/July 2022.
- Action Assess broadband needs of publicly support housing communities.
 Prepare applications or support entities that will apply.



CASF Public Housing Account project Housing Authority of the County of Kern – Green Gardens Main Distribution Frame room

CPUC Broadband Survey for Local Governments

- Please participate in the CPUC Broadband Survey for Local Governments by May 30!
- The survey assesses each community's broadband assets, broadband needs, and interest in state grant programs.
- Survey responses will inform program development and outreach.
- Survey Link: https://www.surveymonkey.com/r/X8WWRHX



Thank You

contact: statewidebroadband@cpuc.ca.gov



Deployment of Anza Electric's CASF Connect Anza project, Riverside County

Affordable Connectivity Program Update

Sunne McPeak

President & CEO

Susan E. Walters

Senior Vice President

California Emerging Technology Fund

ACP Presentation

- Overview of Affordable Connectivity Program
- California Broadband Council Plan of Action
- Tracking Enrollment by County and Zip Code
- Introduce Speakers

Affordable Connectivity Program Overview

Benefit: \$30 per month or \$75 per month if the HH is on Tribal Land

Eligibility for a member of the Household: Lifeline, Medi-Cal, CalFresh, CEP/NSLP, Veterans Benefits, WIC, Tribal TANF, Pell Grant

Application: Everyone except Lifeline participants

For more info: https://www.internetforallnow.org/applytoday

California Broadband Council Plan of Action

Goal: 5 Million Households Enrolled

• 90% by 2025 4,500,000

• 95% by 2027 4,750,000

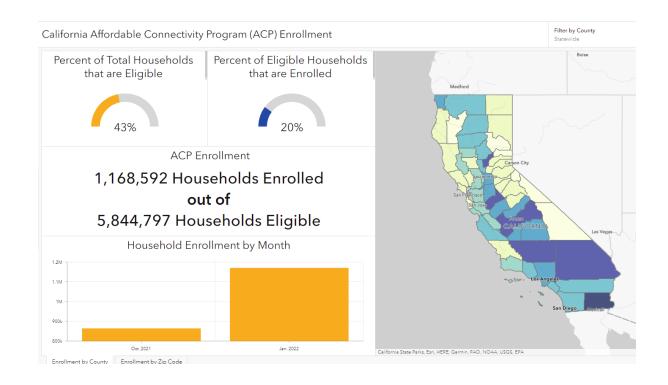
Plan of Action

- Review Goals During Roundtables on the Broadband Plan
- Engage and Mobilize ISPs to Promote ACP in Ads (Raise Awareness)
- Enlist Qualifying State Agencies to Promote to Participants (Credible Source)
- Distribute ACP Info to Local Governments (Credible Source)
- Partner with CBOs (Trusted Messengers)
- Provide Information with Legislators to Share with Constituents

Performance for ACP

Key Observations

- 1.4M HHs enrolled as of May 9
- 30% for Home Internet
- More are eligible but paying market rate
- Sign-ups surpassed the 1M LifeLine subscribers (subsidy for mobile Internet)
- US 11,587,052 May 9 Enrollment
- CA 1,458,280 May 9 Enrollment
 - 12% of U.S. Sign Ups
 - 28% of CA 5M Goal



Conduct Awareness Campaigns with a Call to Action

Speakers will Discuss ACP Promotion Options

- San Diego Organizing All Hands on Deck
- Siskiyou's Broadband Support Model

Themes

- Use Paid and Earned Media, Social Media, County Depts, Printed Collateral
- Engage Partners: CBOs and Local Government Partners
- Multiple Languages In All Media
- Virtual Training for Department Staff
- Call Center Support

Action Plan

- Collaborate Regionally to Increase Awareness With a Concerted Plan (by all means including ISP supported advertising)
- Advertise as Creditable Source (state/county agencies)
- Engage Community with Trusted Messengers

Affordable Connectivity Program Panelist

Chris Schmidt

Caltrans Deputy Director District 11 / SANDAG

Get Connected Campaign



LEARN HOW TO CONNECT:

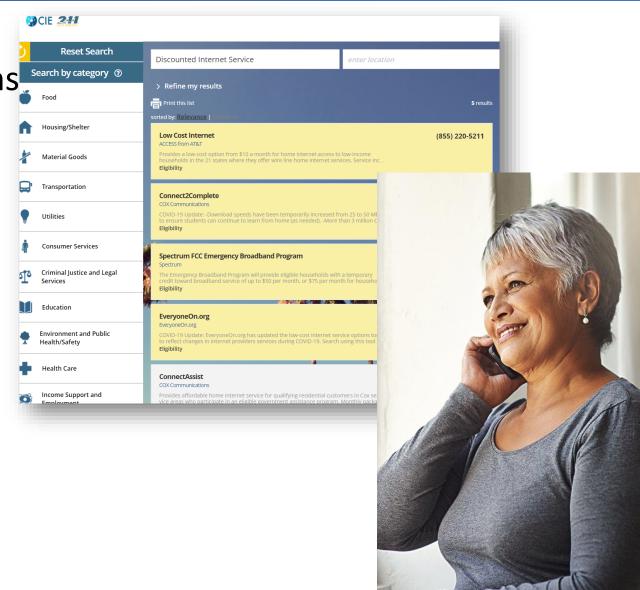
- •Learn about a monthly internet discount through the federal Affordable Connectivity Program.
- •Access free Wi-Fi at hundreds of locations across the region.
- •Check out a laptop from your local library to get connected today.

- •Purchase a low-cost computer or get free digital training from the San Diego Futures Foundation.
- •Explore resources to connect to the internet by visiting GetConnected.SANDAG.org or calling 2-1-1.



211 San Diego

- 211 San Diego is the region's trusted source for information and connections to community, health, and disaster resources
- Free, 24/7 service, 3-digit dialing code
- Tailored programs take the client beyond just a referral
 - Internet services
 - Public WiFi sites
 - Discounted computers
 - Technology education and training





Outreach Strategy







Direct Mail

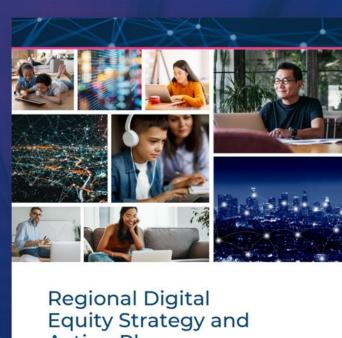




Stay connected with SANDAG

- **Explore our website** SANDAG.org/digitalequity
- Follow us on social media: @SANDAGregion @SANDAG

Email: Chris.Schmidt@dot.ca.gov Krystal.Ayala@sandag.org



Action Plan

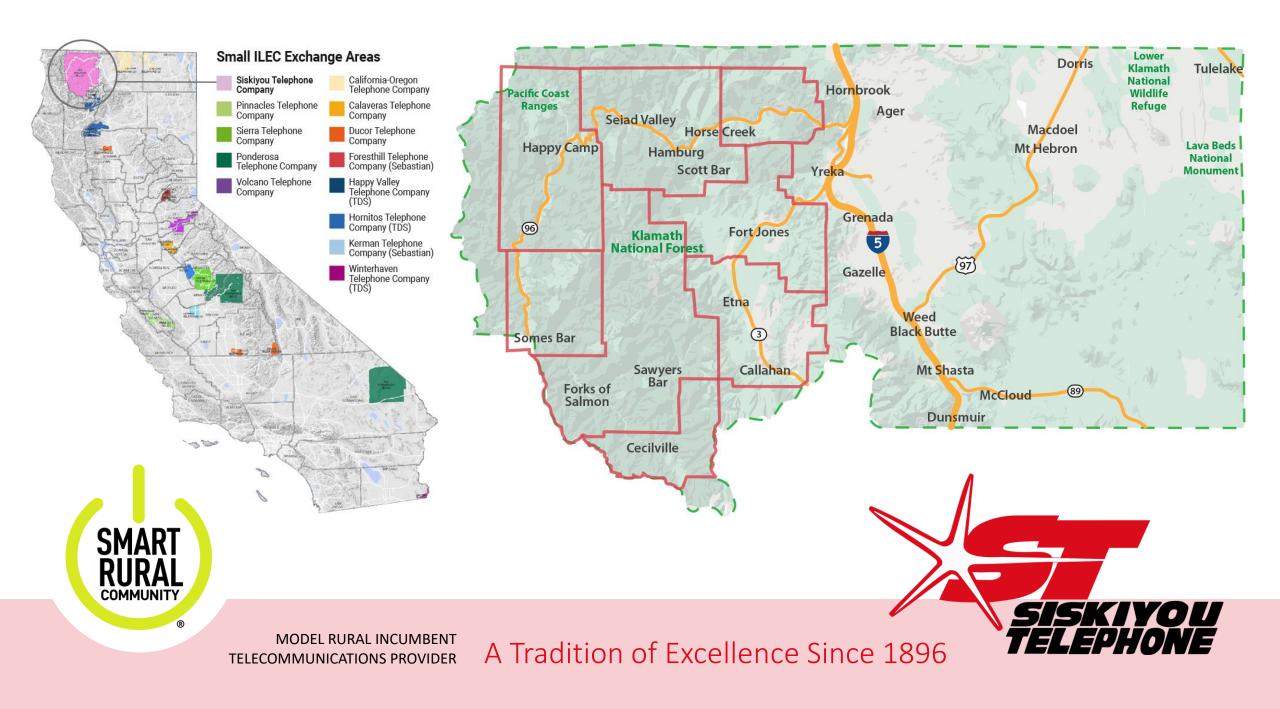
San Diego Association of Governments (SANDAG)



Affordable Connectivity Program Panelist

Russ Elliott

Chief Executive Officer, Siskiyou Telephone



Broadband Support Model

broadband.wa.gov WA State Broadband Office 2020 Report



 Support Digital Equity and Inclusion Initiatives Statewide: access, affordability, devices, skills

Build

 Ensure Scalable, Sustainable, Future-Proof Networks to Meet State Goals

Fund

 Maximize Access to All Funding Opportunities

Plan

 Identify Service Gaps and Develop Shovel-Ready Projects

Partner

 Foster Stakeholder Collaboration to Increase Project Planning





Siskiyou Telephone Service Territory

Cellular Coverage

Limited to no service throughout much of territory

Fixed Broadband Provided by Other Carriers

0%

Siskiyou Telephone Service Territory (2021)	
Area (Sq Miles)	2400
Estimated Population	8400
Estimated Households	4400
Average Poverty Rate	39% > Ntnl Avg.
Median Household Income	39% < Ntnl Avg.
CA Median Household Income	49% < CA Avg.

- 4300-4400 Total Households
- Currently approx. 60% Fiber
 To The Home Built
- Commitment to 100% Fiber
 To The Home by 2033
- 7 Service Territories/ Exchanges
 - 1 with no commercial power
 - o **6** with areas of no commercial power







ACP

Affordable Connectivity Program

Device Program Active Participation

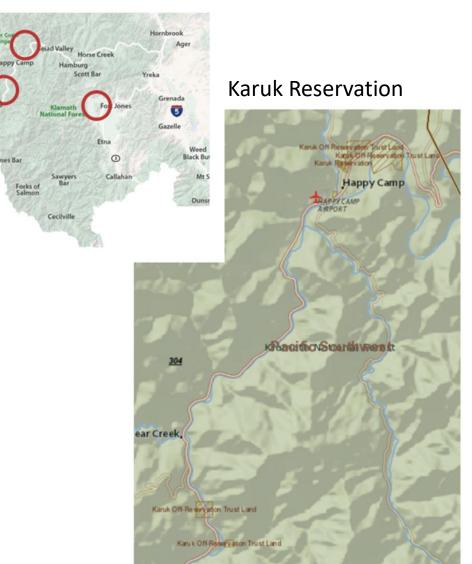
- Siskiyou Telephone Company
 Direct Mail Campaign (April 22)
- Sold Out on Day 1
- 330 ACP Subscribers
- 32 Devices Currently Enrolled
- Waiting List for Re-order



Tribal Areas

Served by Siskiyou Telephone

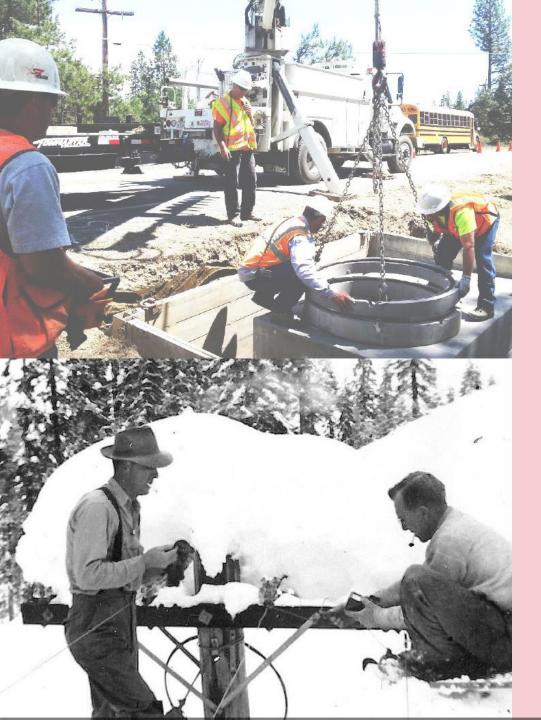
- 100% Fiber Served by December 2022
- \$75/m ACP Benefit
- Siskiyou Telephone Actively
 Promoting ACP Participation





Quartz Valley Reservation





Thank you!

Russ Elliott

530-598-1255 r.elliott@siskiyoutelephone.com **Siskiyou Telephone Company** 866-467-6001 30 Telco Way, Etna CA 96027 www.siskiyoutelephone.com





Scott Adams

Deputy Director, Broadband & Digital Literacy California Department of Technology

NTIA IIJA Broadband Program Update

The Infrastructure Investment and Jobs Act (IIJA) designates \$65 billion to close the digital divide and invest in broadband.

Includes the following programs that will be administered by the NTIA:

- Broadband Equity, Access, and Deployment
 Program to support broadband infrastructure
 and deployment.
- Enabling Middle Mile Broadband
 Infrastructure Program for the construction, improvement or acquisition of middle mile infrastructure.
- State Digital Equity Planning and Capacity
 Grants for states to promote the achievement of digital equity and inclusion.

Notice of Funding Opportunities to be released in May and June. More to come soon!





Closing and Next Steps

Post-Roundtable Follow-ups

- Post-event questionnaire
- Permitting survey
- Event recording, slides presentation, and transcript will be posted on the BB4All portal: broadbandforall.cdt.ca.gov/events/

Upcoming Events

- Middle-Mile Advisory Committee Meeting May 20
- Broadband Council Meeting May 25

THANK YOU!

