



# Middle-Mile Advisory Committee Meeting

October 18, 2024



Broadband for All



# Agenda

**Welcome & Introduction**

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**Executive Report**

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**CDT: Project Update**

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**Middle-Mile Stakeholder Engagement**

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**Last-Mile Stakeholder Engagement**

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**Caltrans: Project Updates**

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**GoldenStateNet: Project Updates**

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**CPUC Last-Mile Updates**

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**Public Comments**

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**Next Meeting Date and Adjourn**

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# Mark Monroe

## **DEPUTY DIRECTOR**

Middle-Mile Broadband Initiative  
California Department of Technology



## Executive Report

# Project Progress

## Summary of events since July MMAC

- Two Groundbreaking Events:
  - Willits
  - Sacramento
- Two new or expanded RFI<sup>2</sup> partnerships signed
- 1,823 miles in construction





**CDT: Project Update**

# **New/Expanded Partnership Agreements**

## **RFI2 Partnerships**

- American Dark Fiber (ADF)
- CVIN Expansion/Amendment

## **Government-to-Government Partnership**

- Yurok Telecommunications (YTel)





# Shannon Martin-Guzman

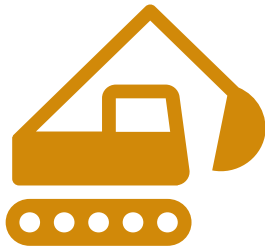
**PROJECT DELIVERY MANAGER**

Middle-Mile Broadband Initiative  
California Department of Technology



## CDT: Project Update

# Installation Map



Installation

- **1,823 Miles Actively Being Installed**
- Construction, Trenching/Boring
- Fiber Pulls and Testing

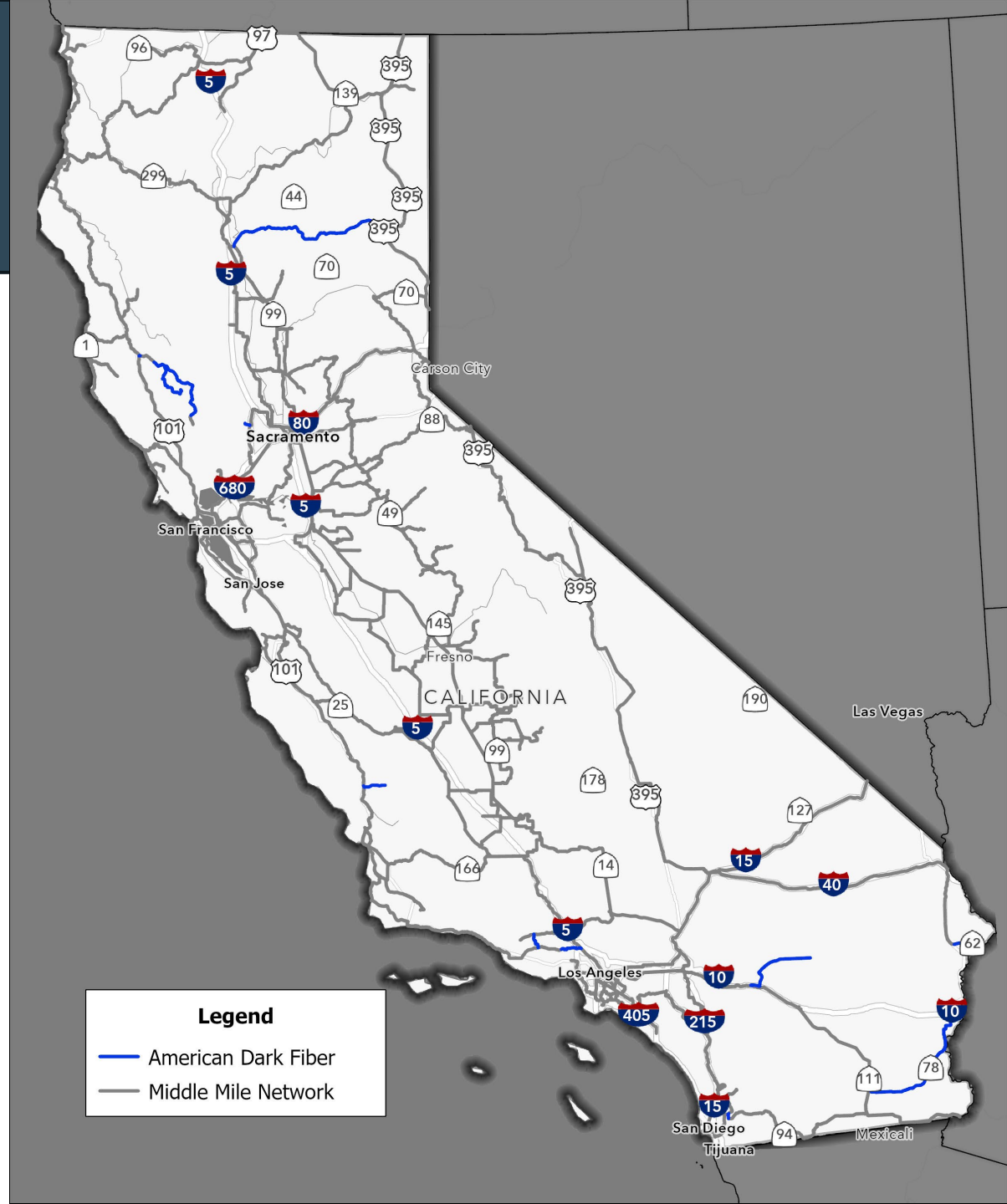


## CDT: Project Update

# Installation Partner

## American Dark Fiber IRU/Lease

- **380 Miles**
- Preconstruction: Currently in engineering and permitting.
- Installation in progress for 1 segment
- Estimated Completion: Q3 2026



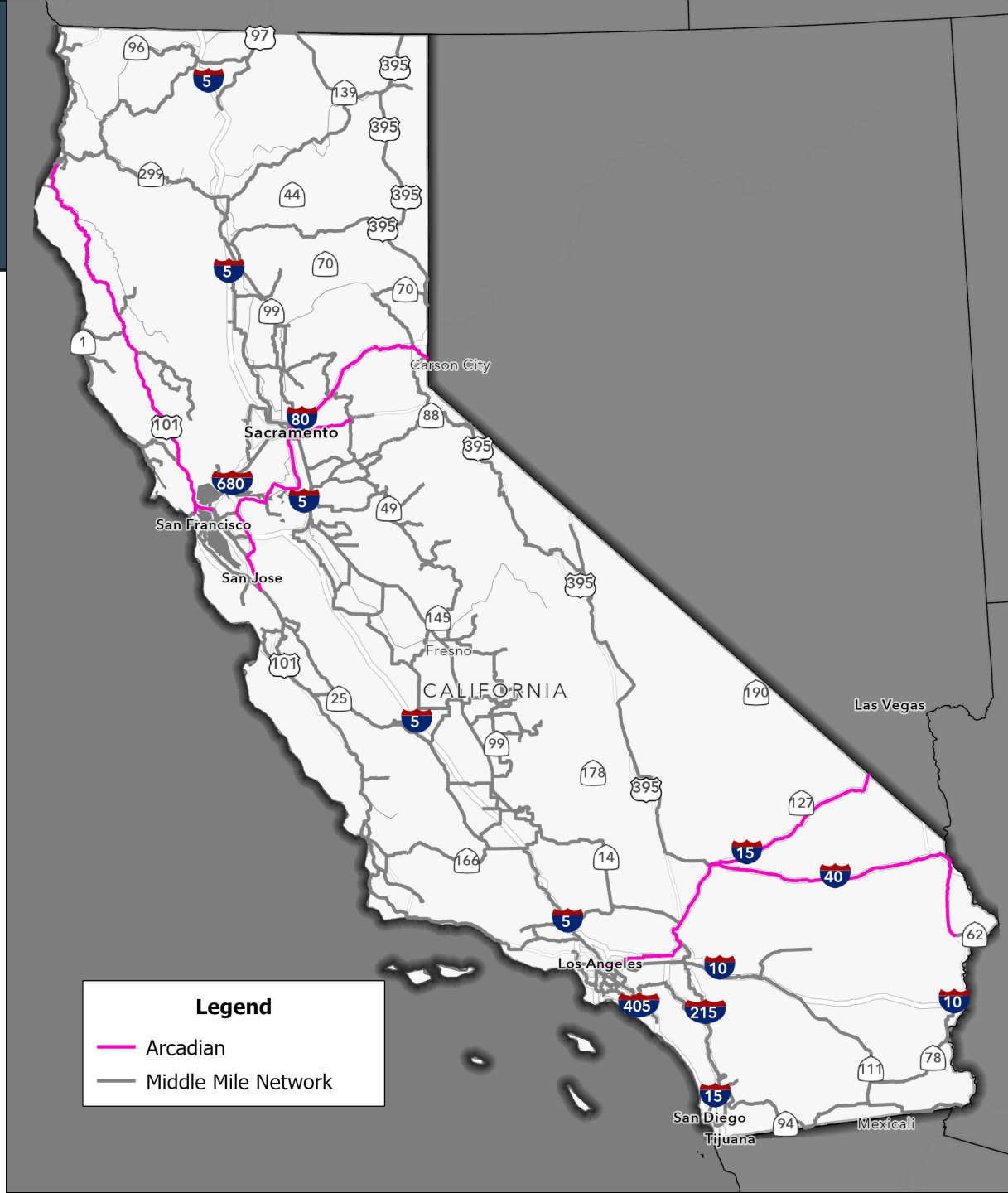


## CDT: Project Update

# Installation Partner

## Arcadian Joint-Build

- **1,004 Miles**
- Preconstruction has progressed from 30% (302 miles) to 70% complete (703 miles).
- Estimated Completion: Q4 2026



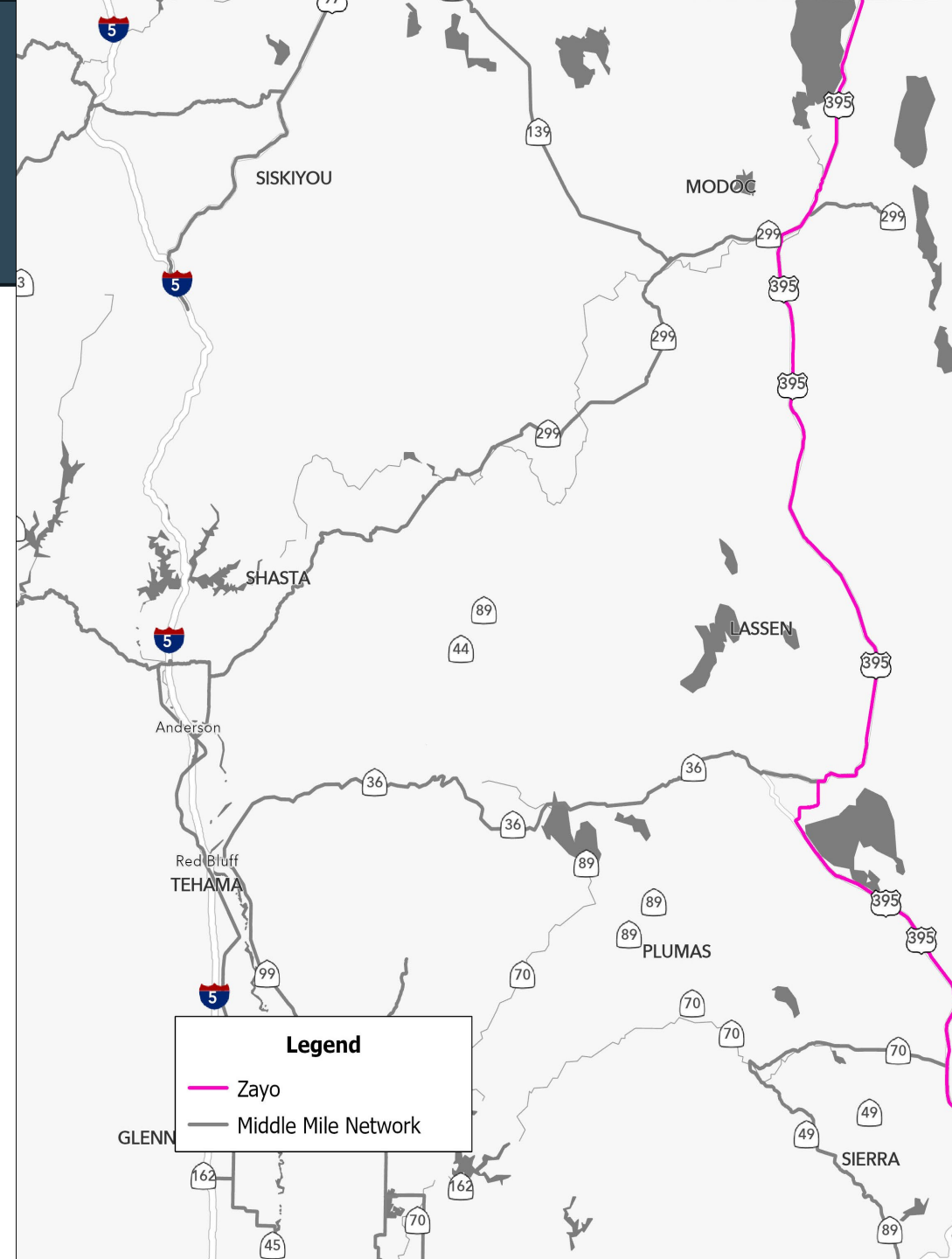
## CDT: Project Update

# Installation Partner

## Zayo

### Joint Build

- **194 Miles**
- Installation has progressed from 5% (10 miles) to 58% (111 miles) complete since July
- Estimated Completion: Q2 2025





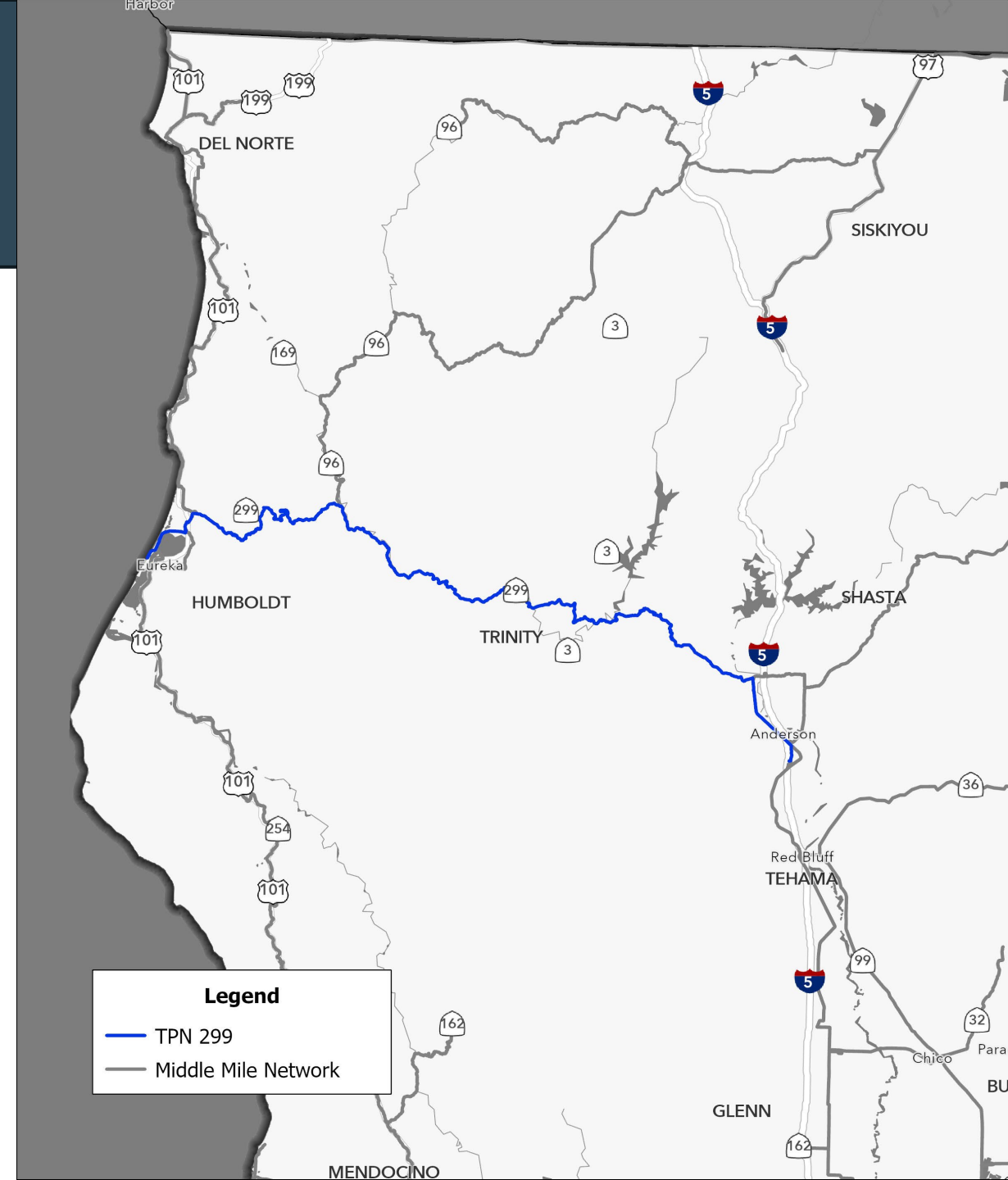
## CDT: Project Update

# Installation Partner

### TPN-299

IRU/Lease

- **171 Miles**
- Installation has progressed from 85% (146 miles) to 89% (153 miles) complete since July 2024
- Estimated Completion: Q4 2024



## CDT: Project Update

# Installation Partner

## Boldyn IRU/Lease

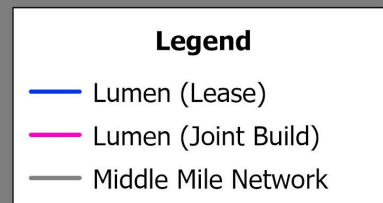
- **82 Miles**
- Installation has progressed from 55% (45 miles) to 57% (47 miles) since July 2024
- Estimated Completion: Q2 2025



# Installation Partner

## Joint-Build & IRU/Lease

- 
- Legend**
- Lumen (Lease)
  - Lumen (Joint Build)
  - Middle Mile Network





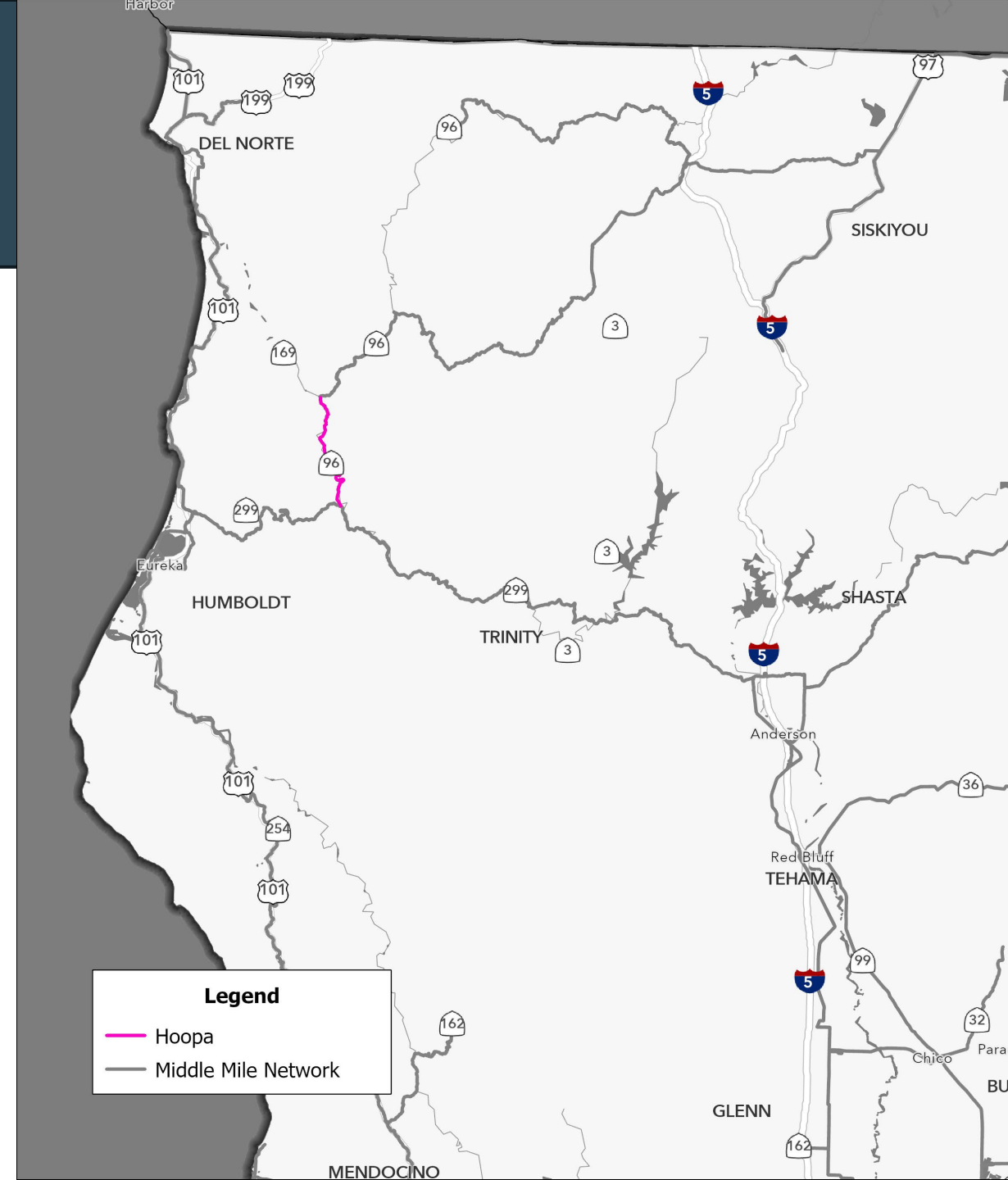
## CDT: Project Update

# Installation Partner

## Hoopa Valley

Joint-Build

- **23 Miles**
- Preconstruction is currently 60% complete
- Estimated Start: Q2 2025
- Estimated Completion: Q4 2026



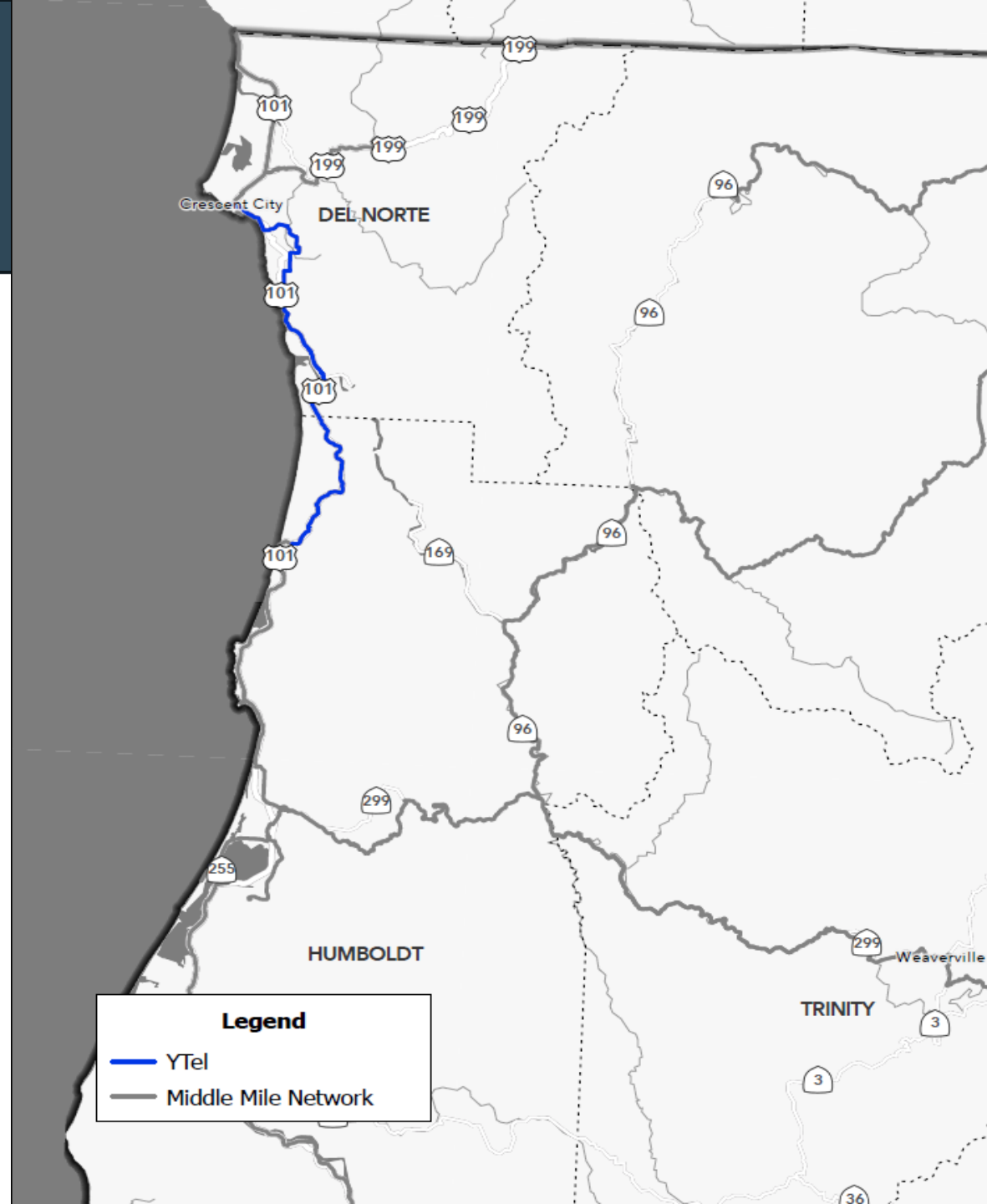
## CDT: Project Update

# Installation Partner

**Ytel**

IRU/Lease

- **47 Miles**
- Preconstruction is currently at 75% complete
- Estimated Start: Q4 2024
- Estimated Completion: Q4 2025



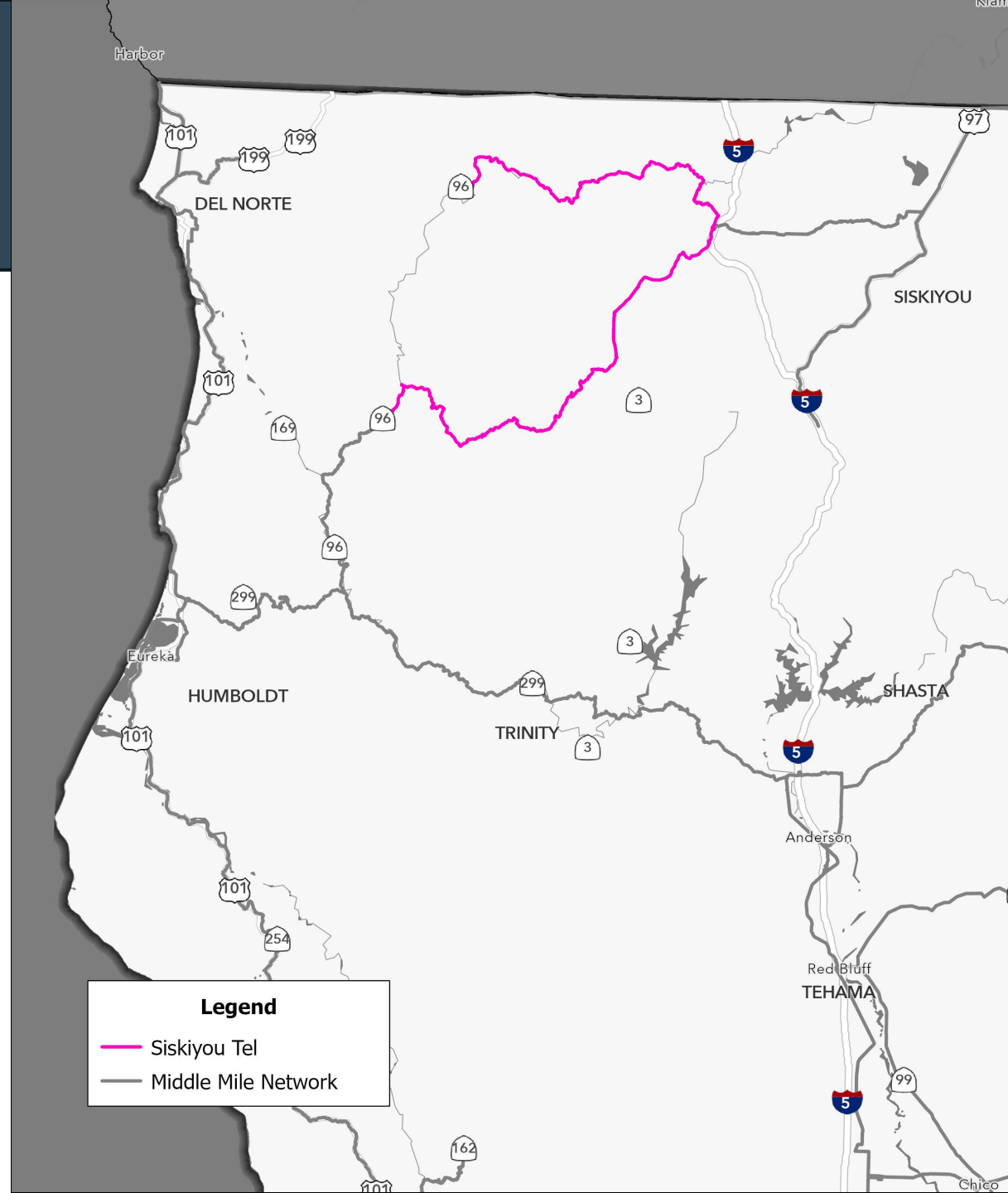
## CDT: Project Update

# Installation Partner

## Siskiyou Tel

### Joint-Build

- **164 Miles**
- Preconstruction has progressed from 60% to 75% complete since July
- Estimated Start: Q1 2025
- Estimated Completion: Q4 2026





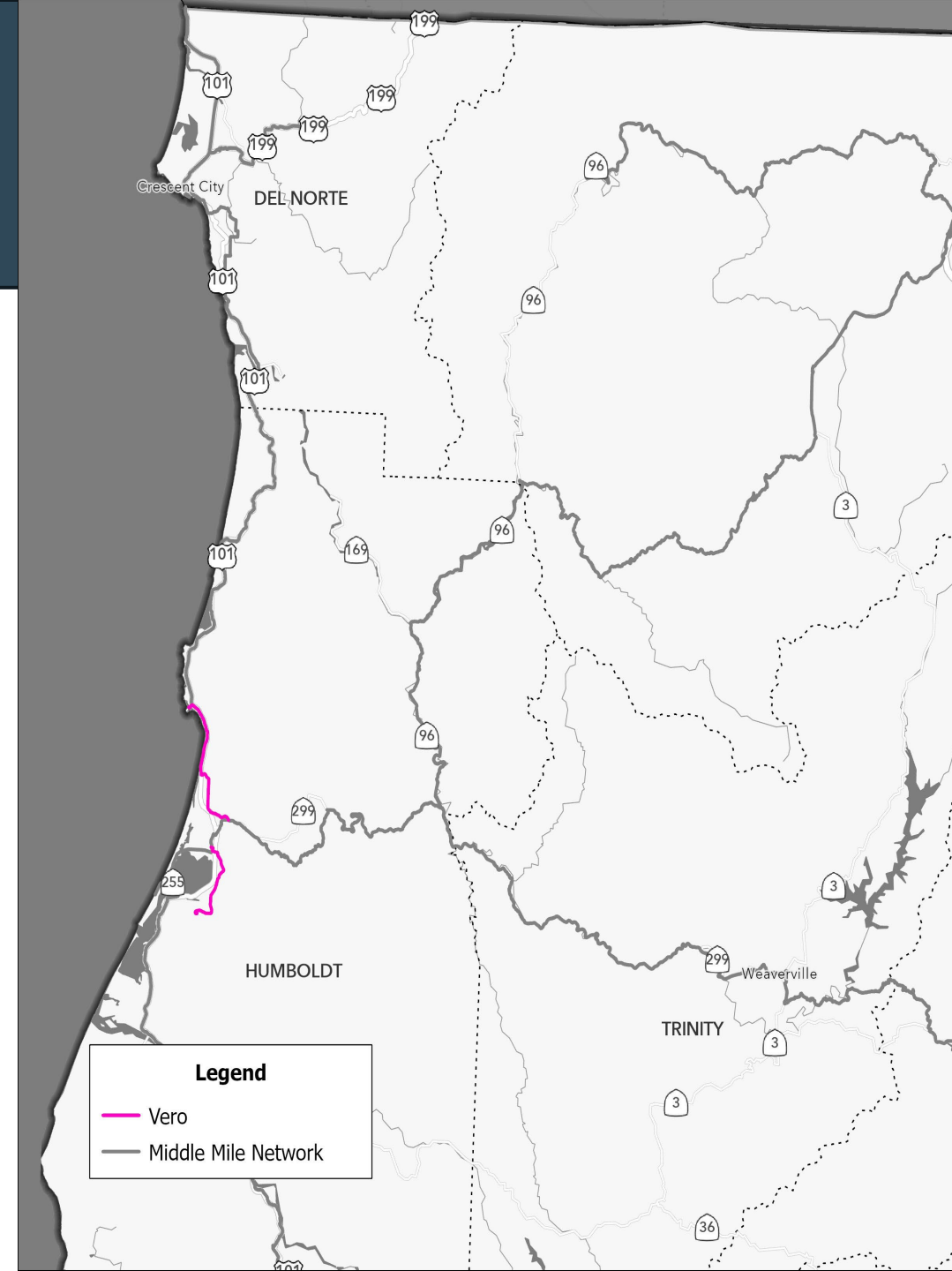
## CDT: Project Update

# Installation Partner

### Vero

#### Joint-Build

- **24 Miles**
- Preconstruction has progressed from 95% to 100% complete since July
- Installation started on 2<sup>nd</sup> segment in early October
- Estimated Completion: Q3 2025



## CDT: Project Update

# Installation Partner

### CVIN

IRU/Lease

- **2,697 Miles**
- 1,083 Miles Existing Build & 1,614 Miles New Build
- Preconstruction is currently 85% complete
- Installation has been initiated on 14 of 91 segments
- Estimated Completion: Q4 2026



# Installation Partner

# Digital 395

## Purchase

- **423 Miles**
- On track to finalize purchase by Q4 2024
- Necessary improvements on 9 hubs scheduled to start Q2 2025
- Estimated Completion: Q4 2025





# Government-to-Government Partnerships



**Signed**

- Ytel (Lease, 47 miles)



**Negotiating**

- 4 Tribal Communities
- Ventura County (Joint-Build, 28 miles)
- City of LA Bureau of Street Lighting (Joint-Build, 12 miles)
- City of Fort Bragg (Joint-Build, 5.6 miles)



# Monica Hernández

**DEPUTY DIRECTOR**

Communications & Stakeholder Relations  
California Department of Technology

Middle-Mile Stakeholder Engagement

# Middle-Mile Stakeholder Meeting

## Objective

Increase transparency and improve communication for stakeholders within the Middle-Mile Broadband Initiative.





## Middle-Mile Stakeholder Engagement

# Middle-Mile Stakeholder Meeting

**September 20, 2024**

- **71** Invites
- **56** Registrations
- **45** Attendees



## Meeting Summary and Agenda

- **Welcome**
- **Project Delivery Updates**
- **Groundbreaking Highlights**
- **Caltrans Updates**
- **Question & Answer**
- **Adjourn**

# Meeting Evaluation Snapshot

*Percentages do not include neutral responses and therefore do not add up to 100%*

Do you find these meetings  
valuable?

60%

Yes

10%

No

Would you like these meetings  
to continue?

70%

Yes

0%

No



## Middle-Mile Stakeholder Engagement

# Meeting Evaluation Snapshot

“Overall updates on this very large, very complex project are helpful when sharing information with people in our region.”

“Recently meetings haven't offered much new information beyond construction/installation updates.”

“It's better to hear the updates, context, details as opposed to just being able to read about it.”

“It would be helpful if the presentations slides were circulated to attendees after the meetings. Also, I'd recommend leaving more time at the end of the meeting for Q&A, especially if meetings wrap up early, as they have recently.”

# Middle-Mile Stakeholder Engagement Monthly Fact Sheet

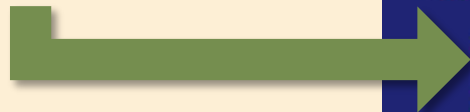
**cdt.ca.gov**



**Initiatives**



**Middle-Mile  
Broadband  
Initiative**



**Fact Sheet**



Official website of the State of California

California Department of Technology



## Middle-Mile Broadband Initiative

[What's New](#)

[FAQs](#)

[Statewide Network Map](#)

[Resources](#)

[Meetings](#)

[Contact & Comment](#)

## Middle-Mile Broadband Initiative

In July 2021, Governor Gavin Newsom signed into law Senate Bill 156 to create an open-access middle-mile network to bring equitable high-speed broadband service to all Californians. SB 156 provides \$3.25 billion to build the necessary infrastructure to bring internet connectivity to homes, businesses and community institutions. The design and construction of the middle-mile network is monitored by the Middle-Mile Advisory Committee (MMAC).





CALIFORNIA  
**ALL**

Broadband for All

9/30/24

# Middle-Mile Broadband Initiative **FACT SHEET**

## 1. At A Glance



**Pre-Construction:**  
**6,243** miles  
(81% of the total miles)



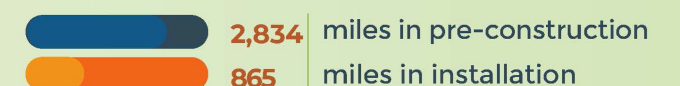
**Installation:**  
**1,823** miles  
(19% of the total miles)

## 2. Network Development Activities

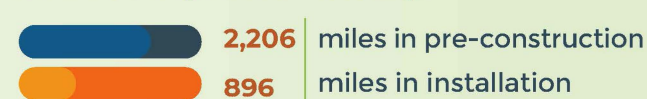
**Caltrans Construction:** **842** total miles including SR 67 Dig Smart



**IRU/Lease Partners:** **3,700** total miles  
Boldyn, CVIN, Lumen, TPN-299, YTel



**Joint Build Partners:** **3,100** total Joint  
American Dark Fiber, Arcadian, Hoopa Valley,  
Lumen, Siskiyou Tel, Vero, Zayo



**Purchase Partner:** **423** total miles  
Digital 395



## 3. Spotlight

The California Department of Technology (CDT) announces an exciting new joint-build partnership with American Dark Fiber (ADF) to build out over 380 miles of network infrastructure as part of the State's Middle-Mile Broadband Initiative (MMBI). These miles are spread across 13 counties in the northern and southern parts of the State and will enable more affordable and reliable broadband access for some of California's most unserved and underserved communities. Initial ADF installation efforts are already underway, with several more critically needed fiber routes scheduled to break ground later this year. This partnership aims to address the digital divide and provide open-access middle mile connectivity to communities, including our digitally stranded rural and tribal communities.





Broadband for All

Middle-Mile Broadband Initiative

## Middle-Mile Stakeholder Engagement

# Operations Efforts

Customer Research	Early Marketing	Operations TPA
Understanding of long-term interconnection and service needs of potential last-mile customers.	Early outreach to FFA grant recipients and other potential customers regarding IRU/lease agreements.	Pursuit of long-term operation TPA to run the network on the State's behalf.



# Preston Rhea

**PRINCIPAL**

HR&A Advisors Inc.  
Broadband Equity Partnership



# Purpose

## Purpose of Customer Research

1. Interconnection
2. Services
3. Relationship Building

	Interviews	Survey	Total Unique Organizations	FFA Applicants
Private ISPs	11	39	43	16
County Governments	4	15	17	3
Municipal Governments	7	14	16	10
Tribal Governments	1	0	1	1
Other Public Agencies	6	7	10	0
Other	1	15	16	1
<b>TOTAL</b>	<b>30</b>	<b>90</b>	<b>103</b>	<b>31</b>

Representing 80 applications with intent to connect to MMBN.

# Takeaway

1. Customers expressed a strong need for MMBN's services.
2. Customers want to know how MMBN will balance its goals.
3. Customers requested details on pricing, routes, and timeline.

# Next Steps



**Continue to engage with potential customers.**



**Finalize a pricing framework.**



**Finalize interconnection points.**



# Jeff Wiley

**ASSISTANT DEPUTY DIRECTOR**

Middle-Mile Broadband Initiative  
California Department of Transportation



# Continued Partnership Role

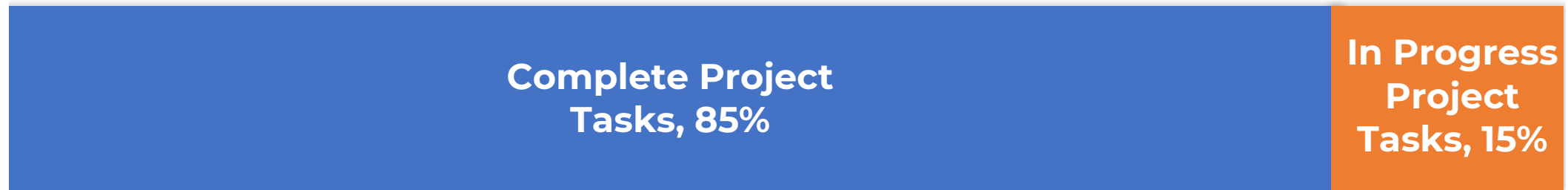
## Three Key Components:

- **MMBN Fiber Installation**
  - **Preconstruction**
  - **Construction**
- **MMBN Hub Installation**
- **Support of RFI<sup>2</sup> Installation Partner Projects**

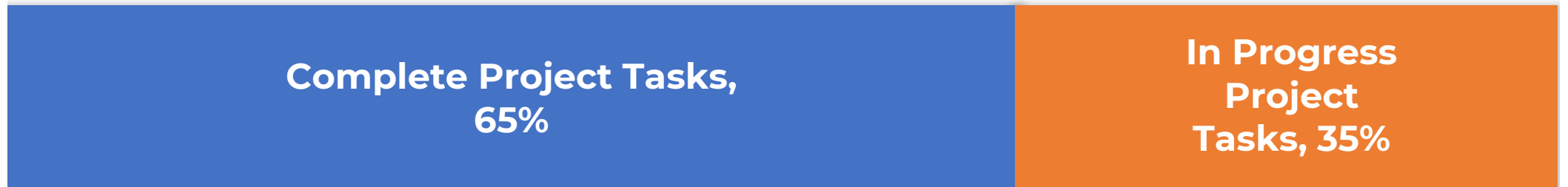


# MMBN Fiber Installation: Departmentwide Preconstruction Progress

**Preconstruction progress: October 2024**



**Preconstruction progress: July 2024**



# MMBN Fiber Installation: Preconstruction Progress by District

Environmental, Permitting and Design progress: September 2024



# MMBN Fiber Installation: Miles of Preconstruction Delivered/Complete

Preconstruction Miles Completed					
CDT Region	by June 2024	July to September 2024	October to December 2024	January to March 2025	Grand Total
1	65	0	242	140	447
2	20	64	130	5	219
3	0	0	28	0	28
4	10	4	16	0	30
5	10	15	20	0	45
Grand Total	105	83	437	145	770
Running Total	105	188	625	770	

\*Data as of 1 October 2024





# MMBN Fiber Installation: Construction Progress

Construction Progress			
CDT Region	Infrastructure in Construction	Infrastructure Remaining	Total Build Miles
1	47	415	462
2	0	197	197
3	0	27	27
4	15	14	29
5	0	55	55
Total	62	708	770

Approximately 62 miles  
are in construction.

Caltrans: Project Update

# MMBN Fiber Installation: LAKE-29



# MMBN Hub Installation: Preconstruction Progress Statewide

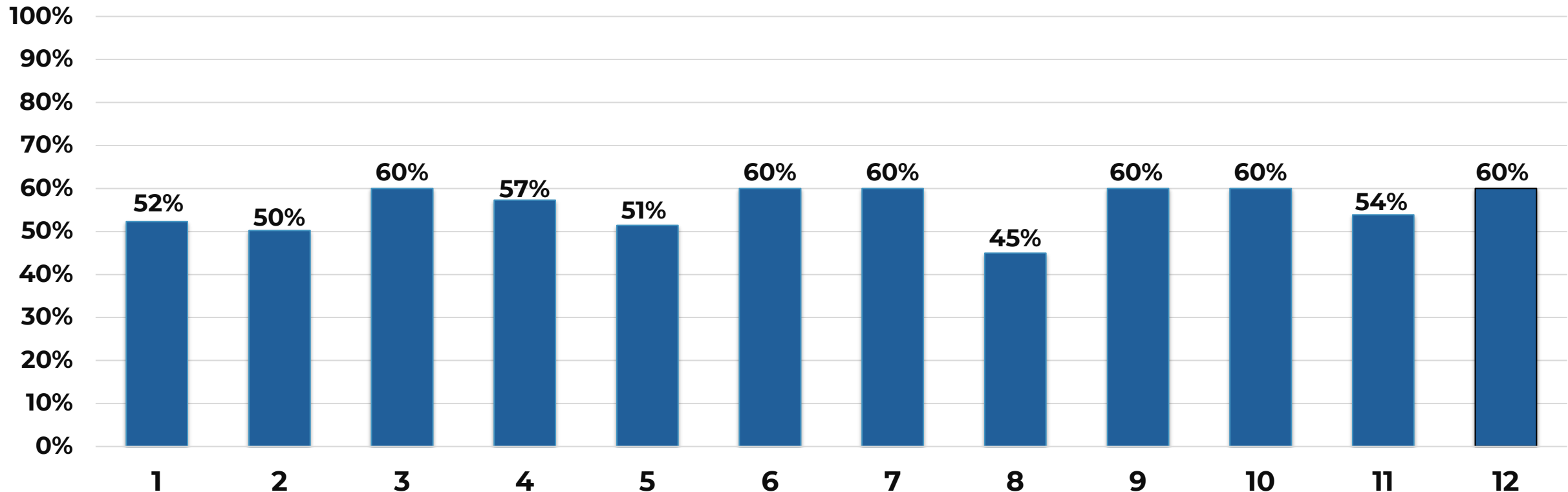
**Statewide Hub Percentage Complete,  
Based on 112 Caltrans Hubs**

**Complete Project Tasks, 54%**

**In Progress Project Tasks,  
46%**

# MMBN Hub Installation: Preconstruction Progress by District

Caltrans Hub Preconstruction  
Percentage Complete By District

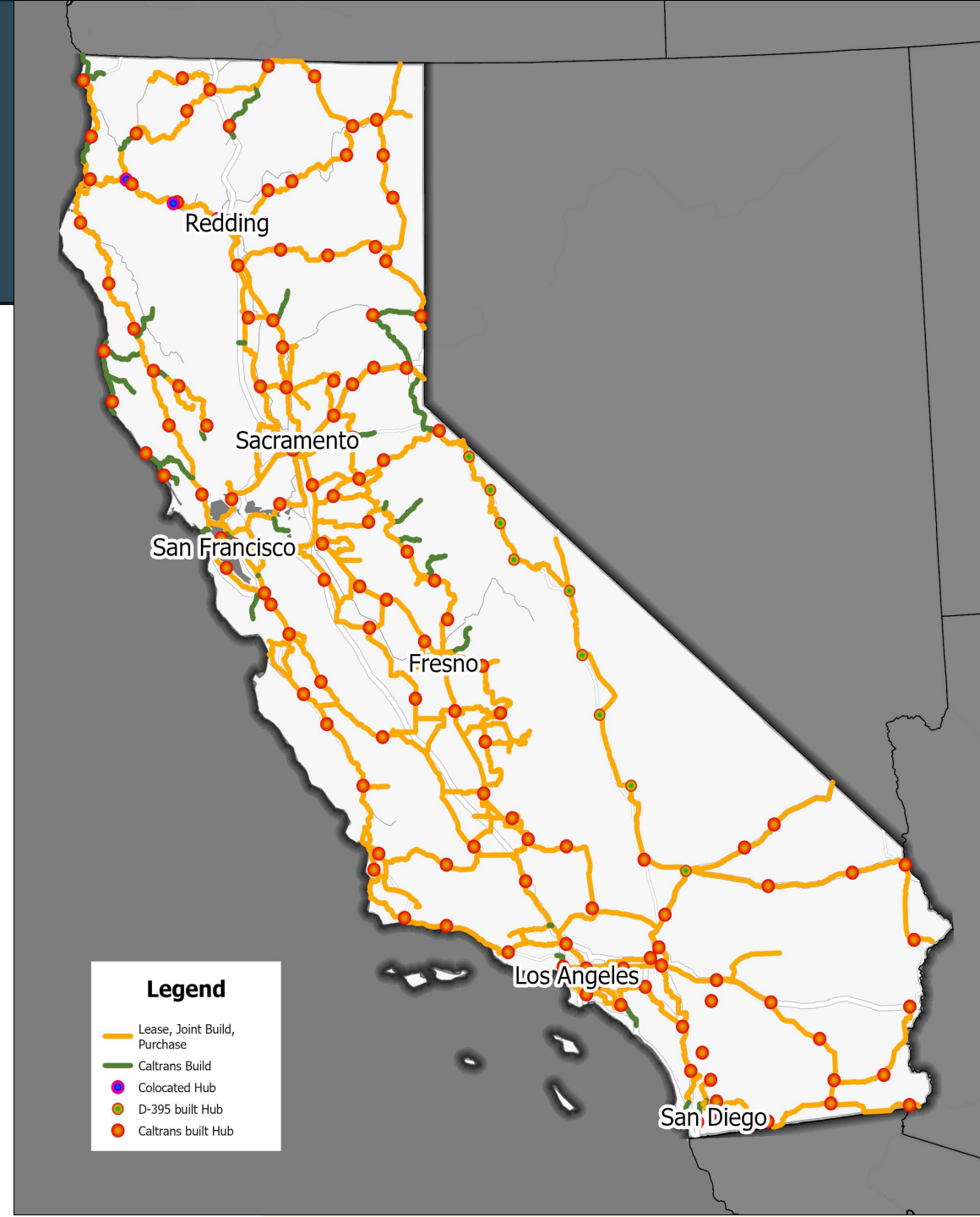




# MMBN Hub Installation: Preconstruction Delivery Schedule

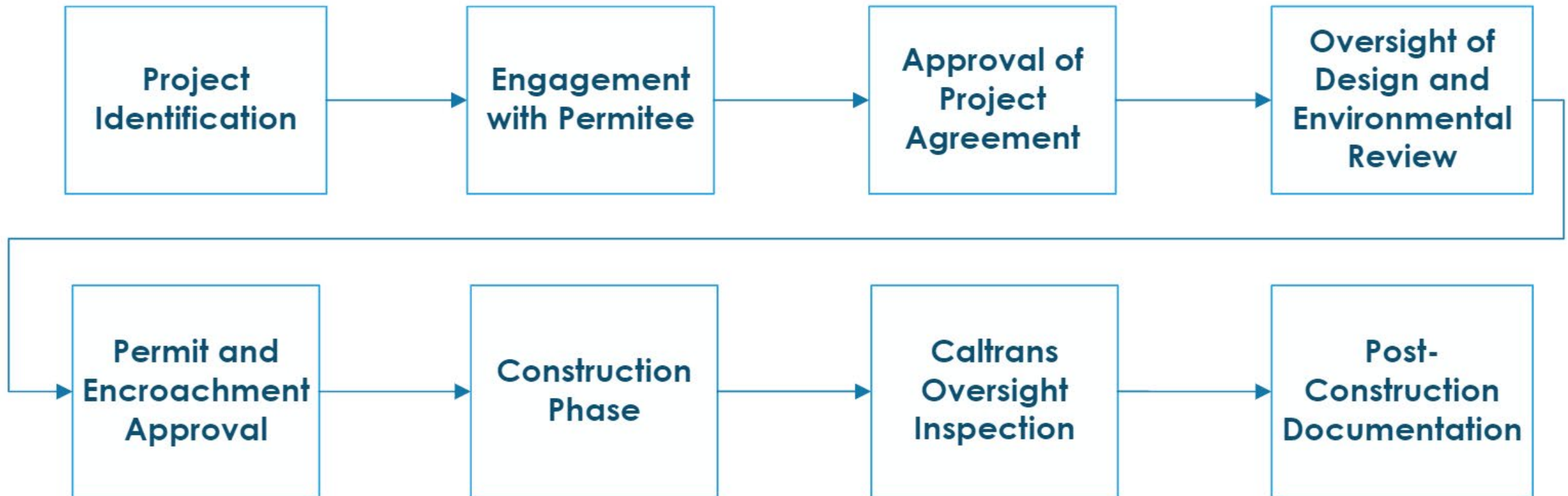
CDT Region	Jan - Mar 2025	Apr - Jun 2025	Jul - Sept 2025	Grand Total
1	21	21	2	44
2	12	6	1	19
3	11	5	1	17
4	9	0	0	9
5	5	10	8	23
Grand Total	58	42	12	112
Cumulative Total	58	100	112	

\*Data as of 1 October 2024





# Support of Installation Partner Projects: Process



# Support of Installation Partner Projects: Status

### Status of RFI2 Partner Encroachment Permitting for Segments on Caltrans ROW

CDT Region	Number of RFI2 Partners in Region	Number of Project Agreements	Number of Encroachment Permits Issued
1	10	5	3
2	4	3	0
3	4	0	1
4	5	3	0
5	4	4	0

\*Data as of 1 October 2024



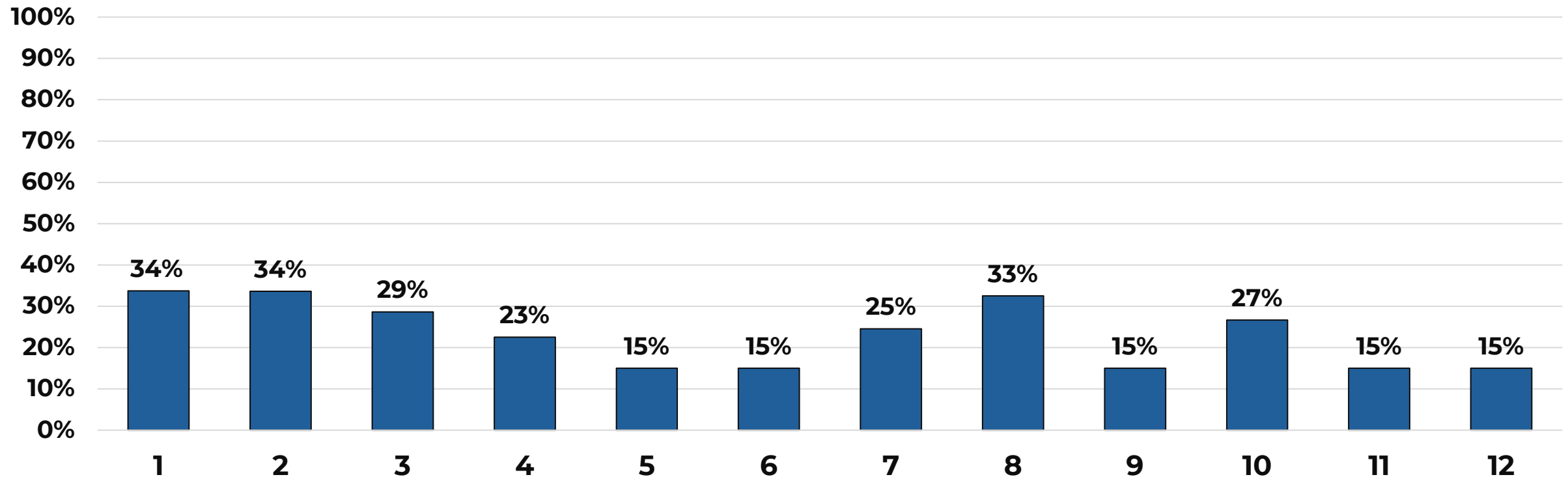
# **Support of Installation Partner Projects: Statewide Permitting Progress**

## **Completed Encroachment Permit Tasks October 2024**



# Support of Installation Partner Projects: District Permitting Progress

## Completed Encroachment Permit Tasks by Caltrans District October 2024



\*Data as of 1 October 2024



# Erik Hunsinger

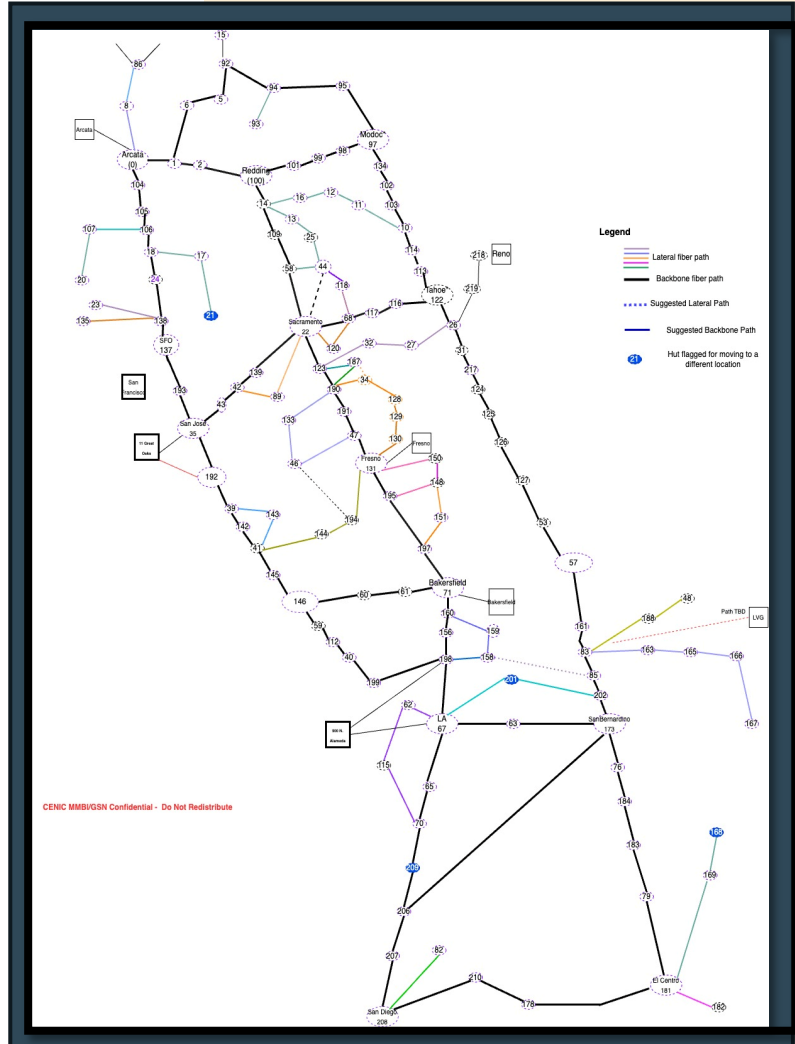
**PRESIDENT & CHIEF OPERATING OFFICER**

GoldenStateNet



# Lighting Fiber

- **Fiber spans.**
- **170 spans comprise the network.**
- **Available Lit Infrastructure**
- **Turn-up fiber routes for service.**



# Planning Requirements

## Hub Configuration

- Cabinet Installation.
- Optimize DC power plant and cooling.
- Infrastructure implementation.



# Planning Requirements

## Configure, Deploy & Connect

- Optical line system, transponders, switches and routers
- Optimize equipment by route
- Deployment to the Hubs
- Connect to the Internet via MMBN fiber path



## GSN: Project Update

# Off Caltrans ROW Hubs

GSN is responsible for preconstruction for all **20 Off Caltrans ROW hubs.**

The majority of these Off-Caltrans locations leverage **government to government** partnerships:

### Number of Hub Locations:

- CAL FIRE - 3
- Federal - 1
- Municipalities – 11
- Businesses - 2
- Tribal Lands - 3



# **Targeted and Strategic Marketing**

## **FFA Grant Recipients**

- **105 FFA grant applications identified.**

## **Other Carriers**

- **Marketing the MMBN will jumpstart sustainability.**
- **Carriers and hyper scalers benefit from diversified networks.**
- **Telecom carriers require a two-year lead time for network expansion**





# Jonathan Lakritz

**Program Manager**

California Public Utilities Commission

CPUC: Last-Mile Updates

Broadband Programs & Investments Overview

	Broadband Equity Access and Deployment (BEAD)	California Advanced Services Fund (CASF)	Loan Loss Reserve Fund (LLR)	Last Mile Federal Funding Account (FFA)
Amount	~\$1.86 billion	\$136 million for 2024-25	\$50 million	~\$2 billion
Summary	Funds for planning, infrastructure and adoption starting in 2024.	Funds broadband infrastructure and adoption in low-income housing, Tribal communities, and unserved areas.	Provides collateral to local government, Tribes, and nonprofits to finance their own broadband Infrastructure.	Funds for last-mile broadband infrastructure projects in every county.
What's Next?	Submit to NTIA results of Challenge Process, Plan and implement subgrantee selection.	Adoption, Public Housing, Line Extension and Tribal Tech Assistance application cycles in 2025.	Program updates, awards, and upcoming activities.	Recommendations and awards.

## CPUC Last-Mile Update

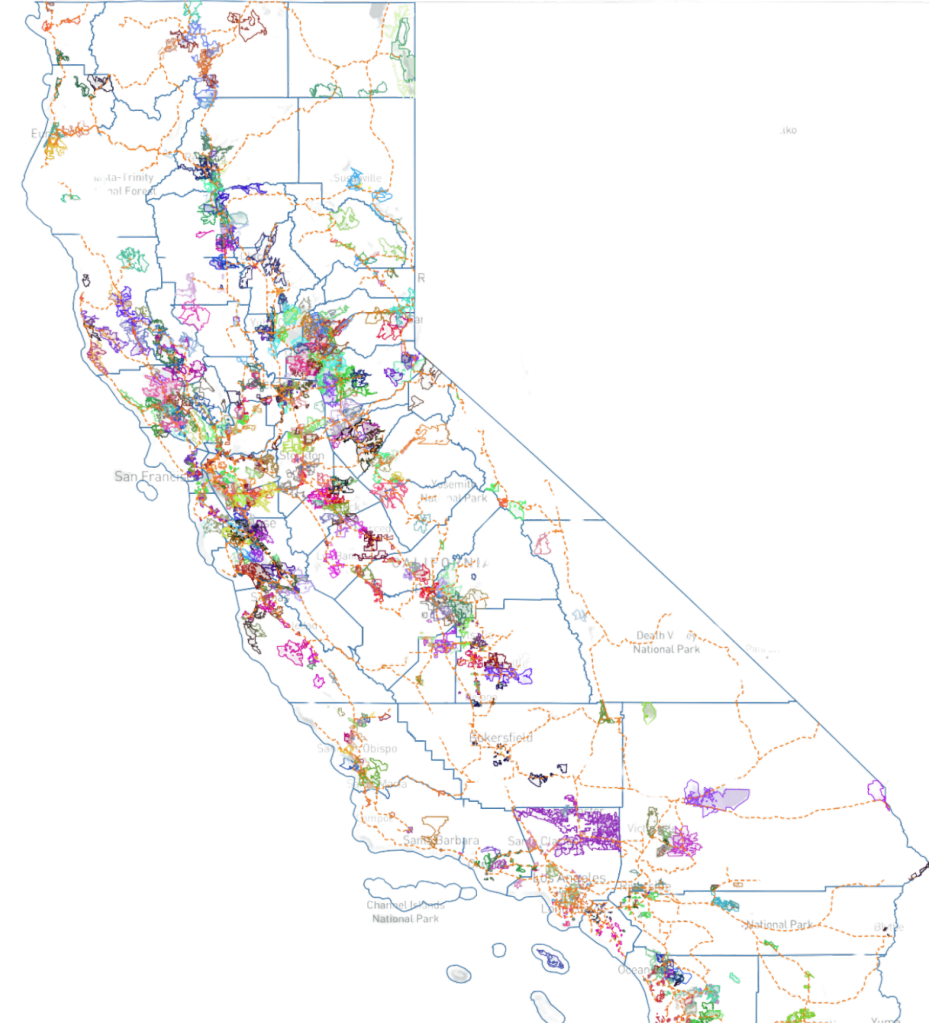
# Federal Funding Account (FFA)

More than \$600 million awarded for high-quality, reliable last mile infrastructure.

A **variety of grantees awarded** including Tribes and county organizations.

Awards **serving low-income and disadvantaged communities** throughout California.

Many awarded projects **plan to connect to the Middle Mile Broadband Initiative**, an important piece in connecting communities.



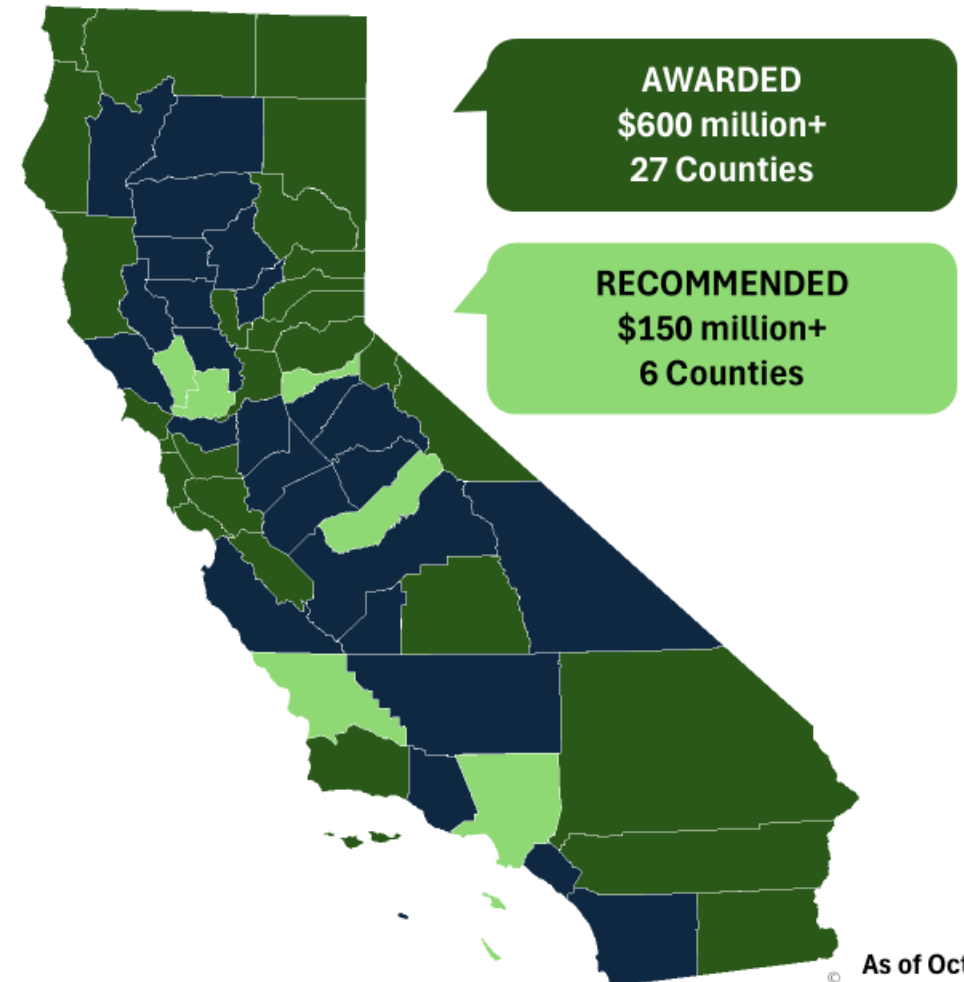
## CPUC Last Mile Update

# Federal Funding Account Awards and Recommendations

Over 60 projects awarded across the State with more coming!

- Amount awarded
- Amount recommended
- Total miles of network
- Total benefitting population

Federal Funding Account Awards and Recommendations  
by County



## CPUC Last-Mile Update

# Loan Loss Reserve Program

### Overview

Provides collateral so that local governments, Tribes, and non-profits can receive more favorable borrowing rates and terms for bonds, loans, and letter of credit for the deployment of publicly owned broadband infrastructure.

### Update

Senate Bill 109 specified \$50 million program; implemented in September Resolution.

### Timeline

Awards before December 31, 2024





## CPUC Last Mile Summary

# California Advanced Services Fund

### **Adoption:** Grants for digital literacy and broadband access projects

- July 1, 2024 cycle | 68 applications received | requesting over \$12.7 million
- Next Application Deadline: January 1, 2025

### **Public Housing:** Grants to build networks offering free service to low income communities

- July 1, 2024 cycle | 36 applications received | requesting over \$2.7 million
- Next Application Deadline: January 1, 2025

### **Tribal Technical Assistance:** Grants to assist California Tribes in developing market studies, feasibilities studies, and/or business plans

- Expanded program and increased support for market studies, feasibility studies, and business plans in Decision 24-03-041
- April 1, 2024 cycle | 3 Tribal applications | \$750,000
- Next Application Deadline January 1, 2025

## CPUC Last Mile Summary

# California Advanced Services Fund

CASF Account	January – June 2024		Since 2008	
	Total Projects	Total Awarded	Total Projects	Total Awarded
Infrastructure	5	\$46,624,114	100	\$344,621,327
Infrastructure Loan	0	\$0	1	\$40,997
Line Extension Program	0	\$0	4	\$2,071,101
Tribal Technical Assistance	10	\$1,791,800	77	\$7,611,550
Consortia	0	\$0	62	\$29,063,202
Adoption	51	\$6,155,822	454	\$46,788,426
Public Housing	11	\$1,027,501	506	\$17,969,145
Total:	77	\$55,599,237	1,204	\$448,165,748

## CPUC Last-Mile Updates

# California Advanced Services Fund

### Broadband Adoption Account

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.

#### Eligibility:

Local governments, senior centers, schools, public libraries, nonprofit organizations, and community-based organizations.

#### Project Types:

- Digital Literacy
- Broadband Access
- Broadband Call Centers

Fiscal year 2024-25 Broadband Adoption Account budget: \$36.4M

Completed or ongoing projects:

- 365 Digital Literacy projects serving 98,469 participants
- 41 Broadband Access projects serving 221,864 participants
- 26 Call Center projects serving 79,366 participants



## CPUC Last-Mile Updates

# California Advanced Services Fund

### Broadband Adoption Account

Provides grants and loans to low-income communities to connect broadband networks that offer free broadband service. The Broadband Public Housing Account will award grants to finance up to 100 percent of the costs to install last mile infrastructure, inside wiring and broadband network equipment.

#### Eligibility:

Publicly supported housing development, farmworker housing, Tribal Housing, mobile home parks, Census Block Group Projects (low-income), and other housing developments

#### Project Types:

- Infrastructure
- Internet Extension

Fiscal year 2024-25 Broadband Public Housing Account budget: \$30.1M

The Broadband Public Housing Account has connected 21,206 units to free internet access since its inception.



## CPUC Last Mile Update

# Broadband Equity, Access, and Deployment (BEAD) Update

**In June 2023, \$1.86 billion was allocated to California to deploy last-mile service to unserved and underserved**

### Key Milestones

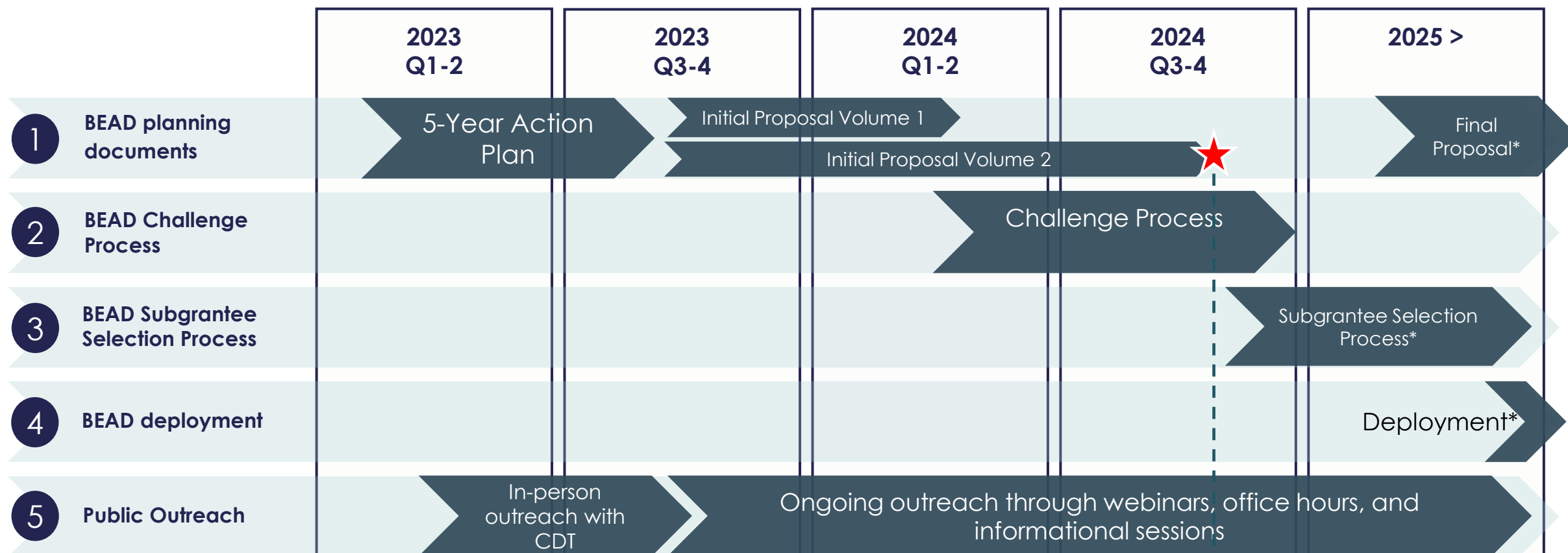
- ✓ *Open BEAD Rulemaking (R.23-02-016) for design and implementation*
- ✓ *Five Year Action Plan accepted by National Telecommunications and Information Administration (NTIA)*
- ✓ *Approval for Initial Proposal Volume 1 received April 4, 2024*
- ✓ *Approval for Initial Proposal Volume 2 received October 3, 2024*
- ❑ Conduct Subgrantee Selection Process—Q1-Q3 2025
- ❑ CPUC and NTIA approval of proposed grant awards— Q4 2025
- ❑ All activities subject to NTIA review and approval





## CPUC Last Mile Update

# Broadband Equity, Access, and Deployment (BEAD) Update



**Subgrantee Selection rules approved  
Challenge Process ends November 4, 2024**

\*Exact timeline dependent on NTIA approval

## CPUC Last Mile Update

# Broadband Equity, Access, and Deployment (BEAD) Update

## California's BEAD Challenge Process

### PUBLICATION OF ELIGIBLE LOCATIONS

- Makes publicly available:
- Map of Eligible Locations
  - Website for members of the public
  - Data sets
    - Unserved
    - Underserved
    - Served
    - CAls

June 17, 2024

### CHALLENGE PHASE

Permissible challengers may submit a challenge via the Challenge Portal

**Start:** July 8  
**End:** August 6

30 calendar days

### EVIDENTIARY REVIEW

CPUC review of challenges for minimum level of evidence to be valid and subject to rebuttal

**Start:** August 7  
**End:** August 20

14 calendar days

### REBUTTAL PHASE

Challenged service providers may provide counter-evidence for challenged locations

**Start:** August 21  
**End:** September 19

30 calendar days

### FINAL DETERMINATION

Review and determination process for disputed challenges

**Start:** September 20  
**End:** October 19

30 calendar days

### SUBMIT RESULTS TO NTIA

CPUC submits its challenge results and final eligibility determinations to NTIA

November 4, 2024

### NTIA APPROVAL\*

NTIA reviews challenge results and determines whether to approve or reverse the CPUC's determinations

December 18, 2024

120 days

\*assumes a 45-day review and approval process by NTIA

# PUBLIC COMMENTS

**Sign up:**  
Broadband for All Newsletter



## 2025 MMAC Meeting Dates

- **Fri, Jan 17<sup>th</sup>**
- **Fri, Apr 18<sup>th</sup>**
- **Fri, Jul 18<sup>th</sup>**
- **Fri, Oct 17<sup>th</sup>**

**MiddleMile@state.ca.gov**

**THANK YOU!**

**Please join us at our next  
MMAC Meeting**

**Friday, January 17, 2025  
10:00 a.m. – 11:30 a.m.**

**[MiddleMile@state.ca.gov](mailto:MiddleMile@state.ca.gov)**