Cross Sector Regional Industry Advisory:

Telecommunication & Construction Pathways in Broadband Deployment

April 19, 2024

Housekeeping

Virtual:

✅ Enable your video camera (optional)

✅ Please stay on 🎤 unless you are called on to ask a question

✅ Submit all questions and commentary using the chat function

✅ This meeting will be recorded and will be provided as part of the post-meeting materials

✅ Closed captioning is available to Zoom participants, let us know in the chat if you need assistance enabling this option

In-Person:

✅ Bathroom is located in the lobby

✅ Free parking in the parking structure to the left as you enter from Bruceville Road

Welcome & Introduction

Hilary Tellesen, Valley Vision
Senior Project Manager

Alena Anberg, North Far North Regional Collaborative
Director of Employer Partnerships, Business and Technology Sectors

> Why Broadband?

Agenda

10:00 AM - Welcome and Introduction

10:10 AM - Broadband Infrastructure Investments

10:25 AM - Labor Market and Trend Analysis

10:55 AM - Industry Panel Discussion

11:45 AM - Community College Program Highlights

11:55 AM - Adjourn and Conclusion

Thank you

to all of our supporters

Broadband Infrastructure Investments: Overview and Opportunities

Karen Eckersley supervises one of the CPUC's broadband caseworker sections. The caseworker section is working to help Tribal nations, public agencies and new ISPs understand and apply for grants to improve internet service in a rich and complicated funding environment.

Karen Eckersley, California Public Utilities Commission Communications Engineer

California Public Utilities Commission
Broadband Resources and Opportunities

Karen Eckersley

April 19, 2024

California Public
Utilities Commission

California Public Utilities Commission

https://bit.ly/CABroadbandCaseworkers

Multi-Year Broadband Investments

	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	$150M million / year (pending budget approval)	$750 million, ~500M proposed	~ $2 billion
Summary	Funds planning, infrastructure deployment, & adoption programs starting in 2024	Funds broadband infrastructure deployment & adoption in low-income housing, Tribal communities, & unserved areas.	Enable local governments & nonprofits to issue credit-enhanced bonds for broadband infrastructure	Fund last-mile broadband infrastructure projects in every county.
Target	Apply in 2024 for BEAD	Apply in 2024 for adoption, public housing, infrastructure & line extension grants	Application window closed April 2024, next app window July 2024	The CPUC is evaluating nearly 500 grant applications received for every county in CA

Broadband for All: State Agency Roles

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.
- Administers Last Mile programs, BEAD funding and multiple public purpose programs.
- Manages state broadband map.

California Department of Technology
- Oversees State Middle Mile network.
- Developed 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 rights-of-way.
- Build partner for 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.
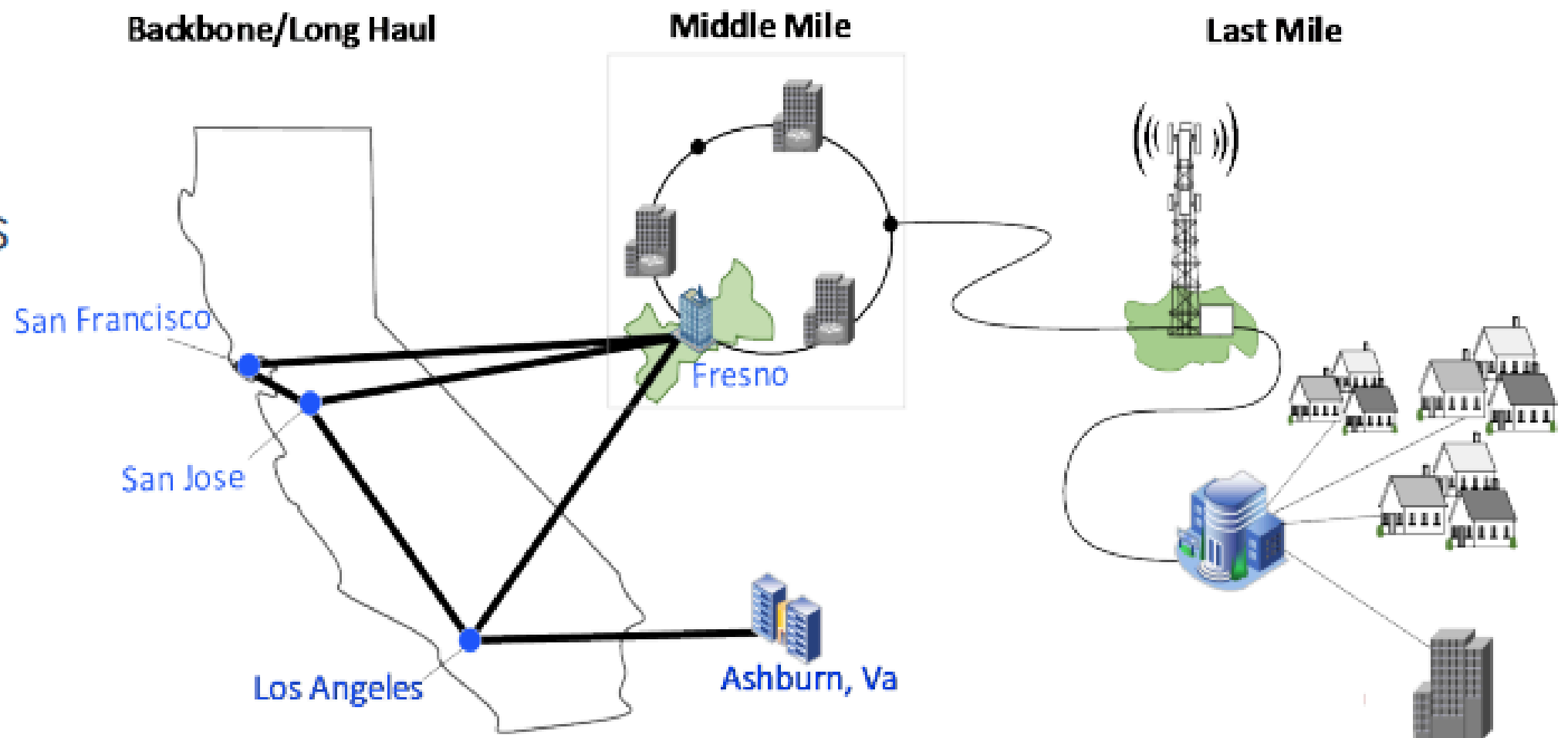
California State Library
- Manages library connections to CalREN.
- Coordinates discounted services for libraries through federal E-rate discount program.

Broadband Building Blocks - Connectivity

Long Haul, Middle Mile, Last Mile

- **Long Haul:** High-capacity connections between exchange points:

- **Middle Mile connections:** Interconnects local service providers with hubs, data centers, and other carriers

- **Last Mile connections:** Connectivity to the end-user by fiber, cable (coax), wireless, or a combination of these

Middle Mile Deployment Plans

Statewide Middle-Mile Network Map

County	Total	Lease	Purchase	Joint Build	Construction
Colusa	63 Miles	3 Miles	0 Mile	41 Miles	19 Miles
El Dorado	117 Miles	51 Miles	0 Mile	17 Miles	49 Miles
Lake	107 Miles	0 Mile	0 Mile	0 Mile	107 Miles
Placer	120 Miles	23 Miles	0 Mile	78 Miles	19 Miles
Sacramento	164 Miles	31 Miles	0 Mile	130 Miles	3 Miles
Yolo	101 Miles	46 Miles	0 Mile	51 Miles	4 Miles
Yuba	47 Miles	47 Miles	0 Mile	0 Mile	0 Mile

State of California Middle-Mile Broadband Initiative

Delivery Methods
Statewide Network
- Lease
- Purchase
- Joint Build
- Construction
- County Boundary

100 Miles

Last Mile Federal Funding Account Applications

- **Colusa County**
  - 3 Applications
  - $9.3M

- **El Dorado County**
  - 27 Applications
  - $205.7M

- **Lake County**
  - 8 Applications
  - $52M

- **Placer County**
  - 18 Applications
  - $95M

- **Sacramento County**
  - 15 Applications
  - $109M

- **Sutter County**
  - 8 Applications
  - $46M

- **Yolo County**
  - 6 Applications
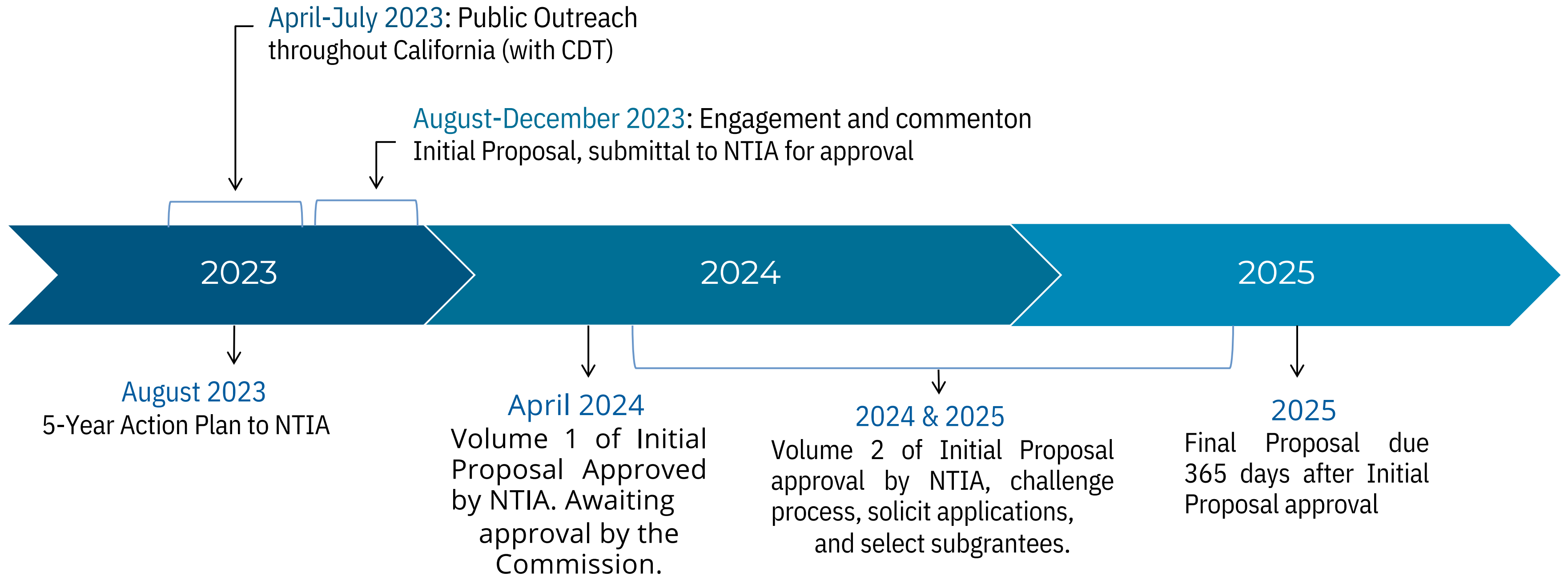 - $34M

- **Yuba County**
  - 8 Applications
  - $90M

California Public Utilities Commission

Grants submitted (ca.gov)

Broadband Equity, Access, and Deployment (BEAD) Program

- $42.45 billion in funding from the federal government to expand high-speed internet across the country.
    - California was allocated ~$1.86 billion
- Primary Goal: Deploy reliable broadband to all unserved locations
    - Unserved = speeds less than 25/3. Underserved is less than 100/20
    - Secondary Goals: Deployment to "underserved locations," Community Anchor Institutions, non-deployment uses
- Learn more about the CPUC's BEAD broadband grant program
    - Program Website: BEAD Program (ca.gov)
    - Initial Proposal for BEAD Rules: Volume I and Volume II
    - BEAD Rulemaking: R.23-02-016

Broadband Equity, Access, and Deployment (BEAD)

April-July 2023: Public Outreach throughout California (with CDT)

August-December 2023: Engagement and commenton Initial Proposal, submittal to NTIA for approval

2023 **2024** **2025**

August 2023
5-Year Action Plan to NTIA

April 2024
Volume 1 of Initial Proposal Approved by NTIA. Awaiting approval by the Commission.

2024 & 2025
Volume 2 of Initial Proposal approval by NTIA, challenge process, solicit applications, and select subgrantees.

2025
Final Proposal due 365 days after Initial Proposal approval

Introduction to the NTIA Model BEAD Challenge Process 10:00 on April 24, 2024

Register here

Workforce Development in California BEAD

BEAD [Requirement 12](#)
Sustainable workforce for broadband deployment and maintenance.

BEAD Workforce Requirements and Guidance

When developing strategies to assure a highly skilled, diverse, and equitable workforce, prospective subgrantees must be sure they are abiding and following all requirements and recommendations in the BEAD NOFO. There are 4 main workforce categories to which industries should be paying attention.

Federal Labor and Employment Laws

All subgrantees with projects funded through BEAD must have a demonstrated record of compliance with federal labor and employment laws and plans to continue compliance.

Skilled Workforce

Each subgrantee must certify that it will use an appropriately skilled and credentialed workforce that is technically qualified to complete all funded activities in a competent manner.

Equitable Training & Workforce Development

Eligible Entitiess are encouraged to adopt selection criteria for subgrantees related to equitable and targeted recruiting efforts, training and education initiatives, and workforce retention and up-skilling initiatives.

Contracting

Eligible Entities are encouraged to contract with Small and Minority Business Enterprises (MBE), Women's Business Enterprises (WBE) and Labor Surplus Area (LSA) firms.

- CPUC role is outreach and research
  - Northern, Central, and Southern regions
- NTIA Workforce Development guide for Eligible Entities
- California public and private spending on workforce training programs: $6 billion annually.
- [Improving Workforce Education and Training Data in California](#)

[Workforce Planning Guide | Internet for All](#)

Broadband Deployment Occupations inCalifornia

Estimated workforce growth needed in CA

Occupation	Currently employed in California	$2.2 billion BEAD investment		$5.3 billion BEAD + CPF + last-mile investment	
		New workers needed	% increase	New workers needed	% increase
Project Management Specialists	102,313	114	0.11%	271	0.26%
Business Operations Specialists, All Other	179,220	130	0.07%	308	0.17%
Software Developers	260,775	147	0.06%	345	0.13%
Software Quality Assurance Analysts and Testers	33,022	19	0.06%	44	0.13%
Electronics Engineers, Except Computer	20,899	40	0.19%	94	0.45%
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	125,994	165	0.13%	391	0.31%
Customer Service Representatives	207,045	190	0.09%	448	0.22%
Construction Laborers	95,313	398	0.42%	940	0.99%
First-Line Supervisors of Mechanics, Installers, and Repairers	48,095	116	0.24%	273	0.57%
Telecommunications Equipment Installers and Repairers, Except Line Installers	16,177	114	0.70%	270	1.67%
Electrical Power-Line Installers and Repairers	9,394	200	2.13%	474	5.05%
Telecommunications Line Installers and Repairers	12,672	213	1.68%	503	3.97%

Source: Lightcast Datarun 2023.4

Workforce qualification requirements in CA

Occupation	Typical entry-level education	Work experience required	On-the-job training required
Project Management Specialists	Bachelor's degree	None	None
Business Operations Specialists, All Other	Bachelor's degree	None	None
Software Developers	Bachelor's degree	None	None
Software Quality Assurance Analysts and Testers	Bachelor's degree	None	None
Electronics Engineers, Except Computer	Bachelor's degree	None	None
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High school diploma or equivalent	None	Moderate-term
Customer Service Representatives	High school diploma or equivalent	None	Short-term
Construction Laborers	No formal educational credential	None	Short-term
First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None
Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary nondegree award	None	Moderate-term
Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term
Telecommunications Line Installers and Repairers	High school diploma or equivalent	None	Long-term

Source: Lightcast Datarun 2023.4

California Public
Utilities Commission

broadbandcaseworkers@cpuc.ca.gov

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Labor Market & Trend Analysis

Ebony J. Benzing, MPA, North/Far North Center of Excellence - Los Rios Community College District

Executive Director

Industry
Panel Discussion

Trish Kelly, Valley Vision
Managing Director

Oversees Valley Vision's Food & Ag Economy, 21st Century Workforce and Broadband Strategies

Industry Panel

Kenny Blakeslee

Apex Site Solutions
Founder and CEO

- Kenny launched Apex Site Solutions in 2010 with just one employee, which has grown to a team of more than 100 employees.
- Apex provides an array of services to the wireless infrastructure industry.

Alex Velazquez

MasTec
Division Vice President

- In current roll for 2.5 years
- More than 25 years of experience working on Fiber Optic infrastructure projects in California.

Adam Mohler

AT&T
Associate Director

- 25 years of service with AT&T
- As Associate Director for Wireline Construction in the Northern Central Valley, Adam is responsible for AT&T's implementation of the capital build plan and supervision of approximately 70 employees among many other roles.

Ernesto Fermin

Caltrans
Senior Telecommunications Engineer

- 34 years of experience
- Has worked with communication systems across Electrical Construction inspection and oversight, Electrical Design, Maintenance and Operations of Fiber Networks and as a Fiber Network Repair contract manager.

Community College

Program Highlights

Before you go, please complete this Evaluation Form

Scan Here to Fill Out Our Post-Event Survey!

Upcoming Events

- **AgTech Advisory on April 26, 2024 | 9 AM - 11 AM**
Join us for a virtual regional advisory focused on advancements in the agricultural industry.

Thank you for joining!

For more information, please contact:

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