BROADBAND FOR ALL

Middle-Mile Advisory Committee Meeting

April 21, 2023

CALIFORNIA ALL

AGENDA

- **Welcome**
- **Executive Report**
- **Project Updates**
  - CDT Project Update
  - Preconstruction GoldenStateNet
  - Stakeholder Engagement Update
  - CPUC Last-Mile
- **Public Comment**
  - Closing Remarks

Mark Monroe
Deputy Director

Middle-Mile Broadband Initiative

California Department of Technology
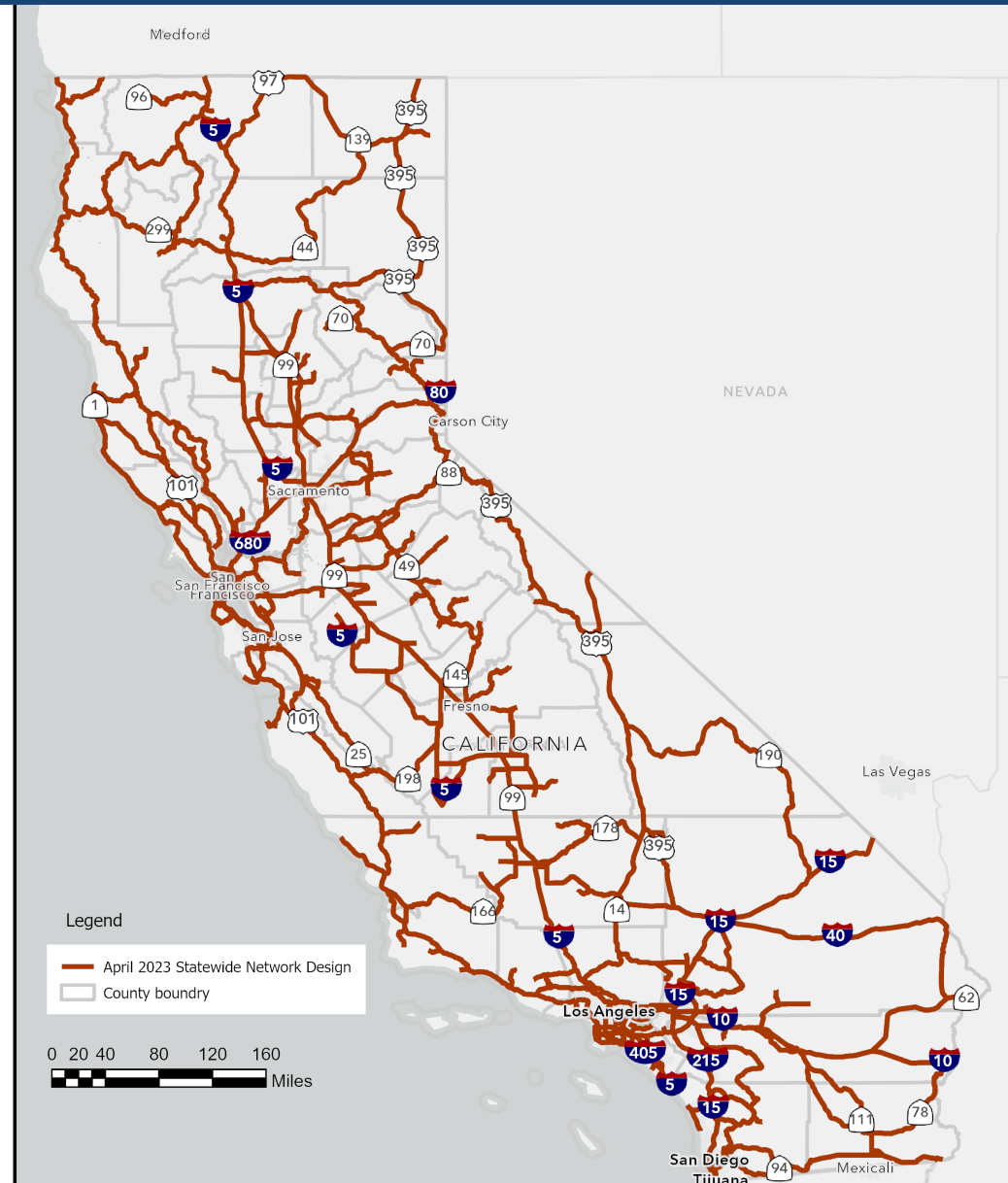
Statewide 10,000 Map

Recap

- Proceeding with execution phase
- Bids for construction contracts & Indefeasible Right of Use (IRU) leases

Updates

- Statewide – CDT
- Build Efforts – Caltrans
- Indefeasible Rights of Use (IRUs) – GoldenStateNet
- Last Mile Coordination – CPUC

Coming up

- Contract execution

CALIFORNIA
ALL
**Middle-Mile
Broadband Initiative**

Legend

— April 2023 Statewide Network Design

☐ County boundry

0 20 40 80 120 160 Miles

PROJECT RECAP
Middle-Mile Network

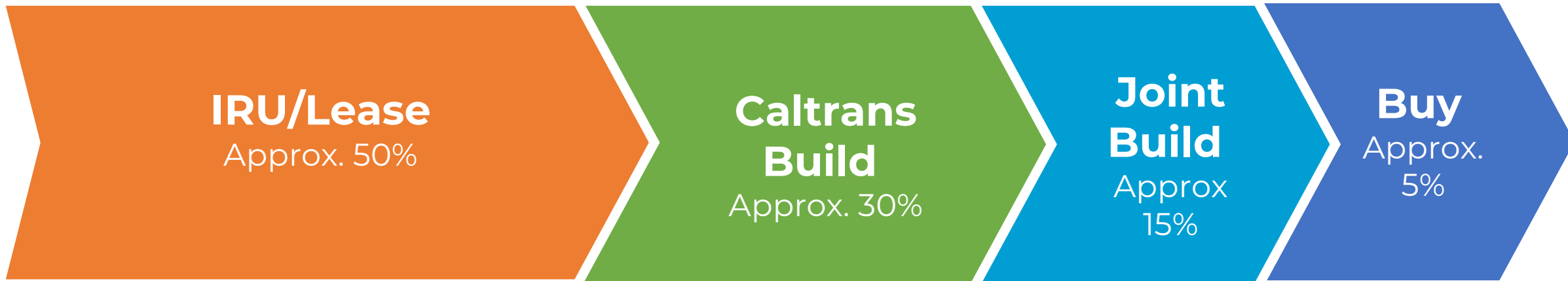**Initial Plan per SB 156 - July 2022**

**Build
Approx. 75%**

**IRU/Lease
Approx. 25%**

- **Construction delay could add years to the project**
- **Inflation driving up construction costs**
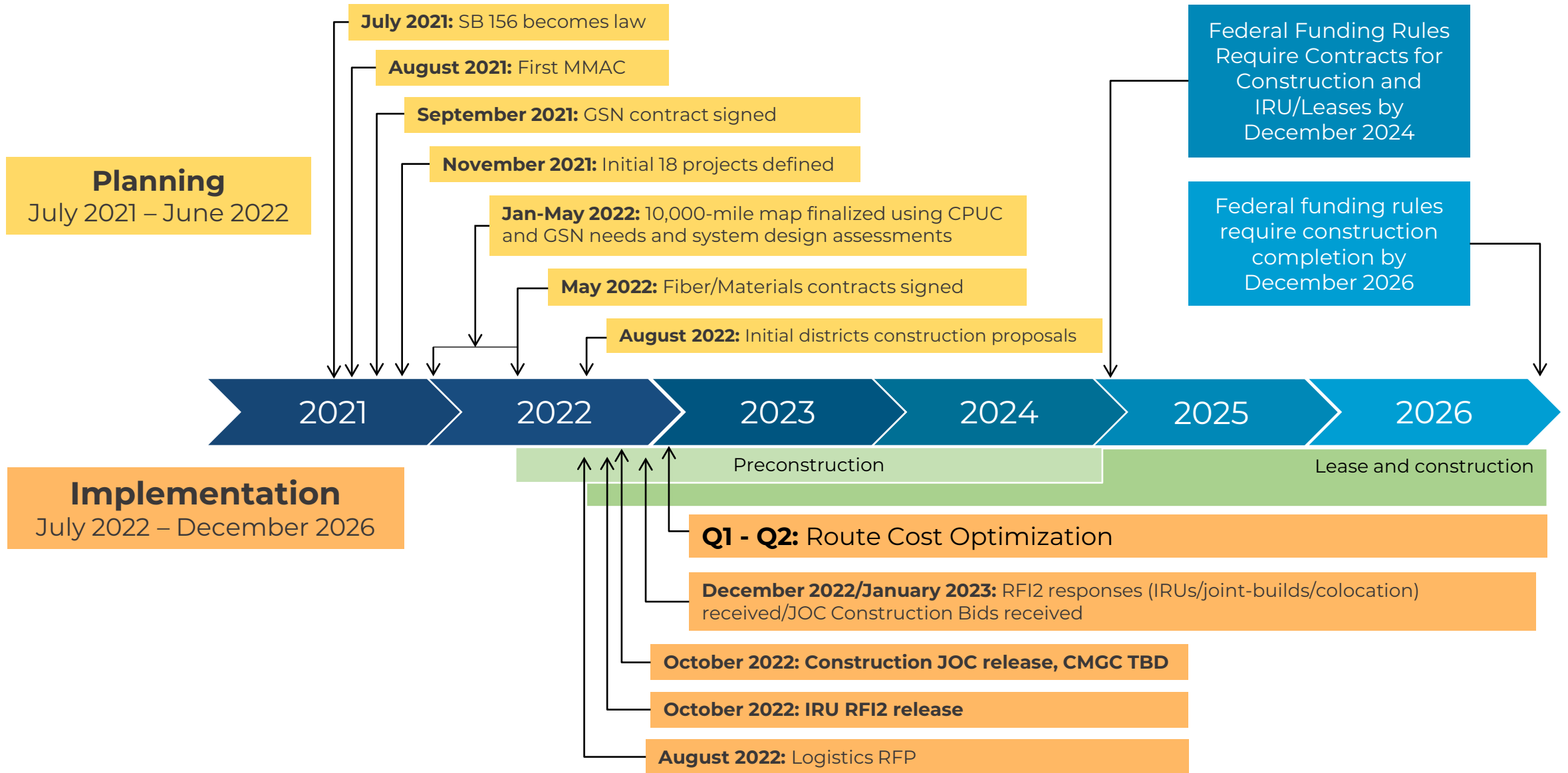- **Geographic challenges make some building impossible.**

Middle-Mile Network

Revised considerations - April 2023

IRU/Lease	Caltrans Build	Joint Build	Buy
Approx. 50%	Approx. 30%	Approx 15%	Approx. 5%

- **Keeps project on track to meet ARPA deadline**
- **Faster access to broadband for many Californians**
- **Virtually entire length of network 288k speed**
- **Avoids construction in highest cost areas**
- **California would own network, M&O costs comparable**
- **Agreements are pending. Preconstruction continues on all 10,000 miles.**

PROJECT RECAP
Timeline

July 2021: SB 156 becomes law

August 2021: First MMAC

September 2021: GSN contract signed

November 2021: Initial 18 projects defined

Jan-May 2022: 10,000-mile map finalized using CPUC and GSN needs and system design assessments

May 2022: Fiber/Materials contracts signed

August 2022: Initial districts construction proposals

Planning
July 2021 – June 2022

Federal Funding Rules Require Contracts for Construction and IRU/Leases by December 2024

Federal funding rules require construction completion by December 2026

2021 | 2022 | 2023 | 2024 | 2025 | 2026

Preconstruction

Lease and construction

Implementation
July 2022 – December 2026

Q1 - Q2: Route Cost Optimization

December 2022/January 2023: RFI2 responses (IRUs/joint-builds/colocation) received/JOC Construction Bids received

October 2022: Construction JOC release, CMGC TBD

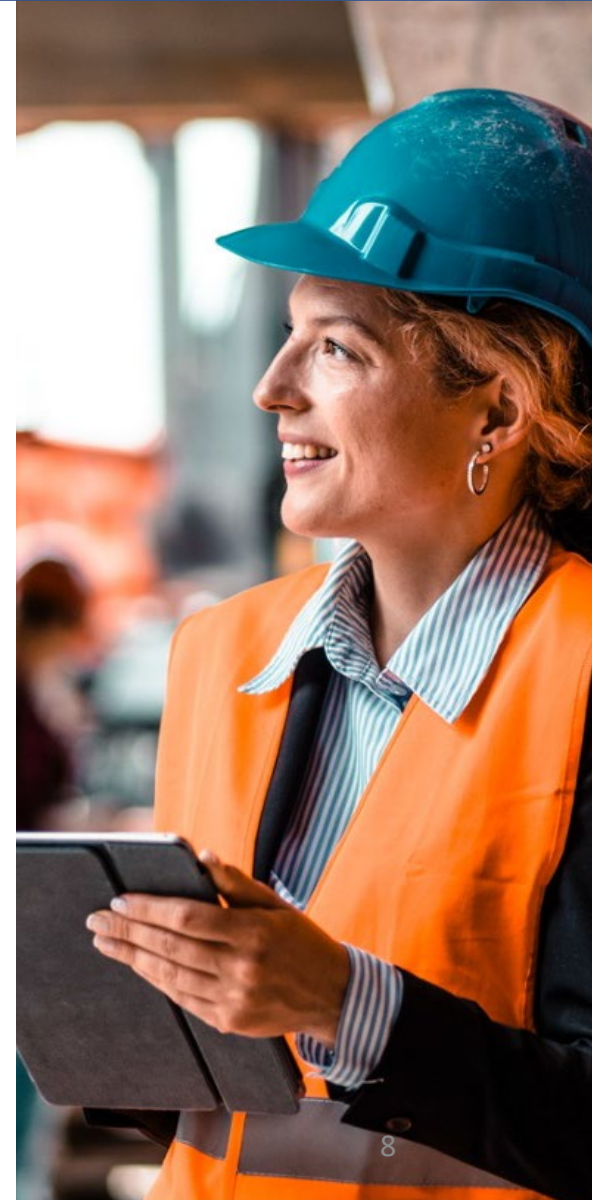**October 2022:** IRU RFI2 release

August 2022: Logistics RFP

PROJECT RECAP
REQUEST FOR INNOVATIVE IDEAS (RFI2)

22 BIDS RECEIVED

- IRU/Lease: 5 bids
- Joint-Build: 3 bids
- Purchased Infrastructure: 2 bids
- Colocation Facilities: 5 bids
- Other: 7 bids

Janice Benton
Assistant Deputy Director

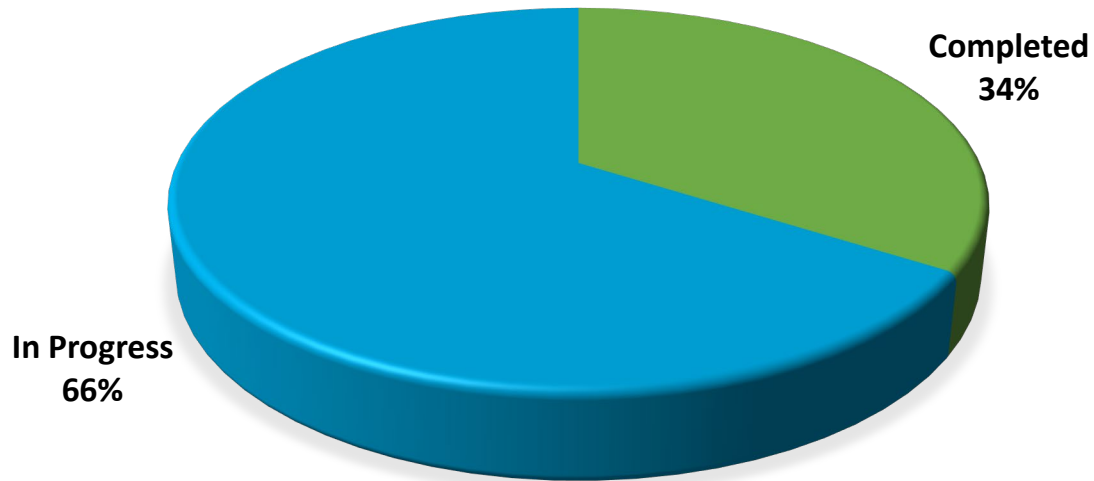Middle-Mile Broadband Initiative

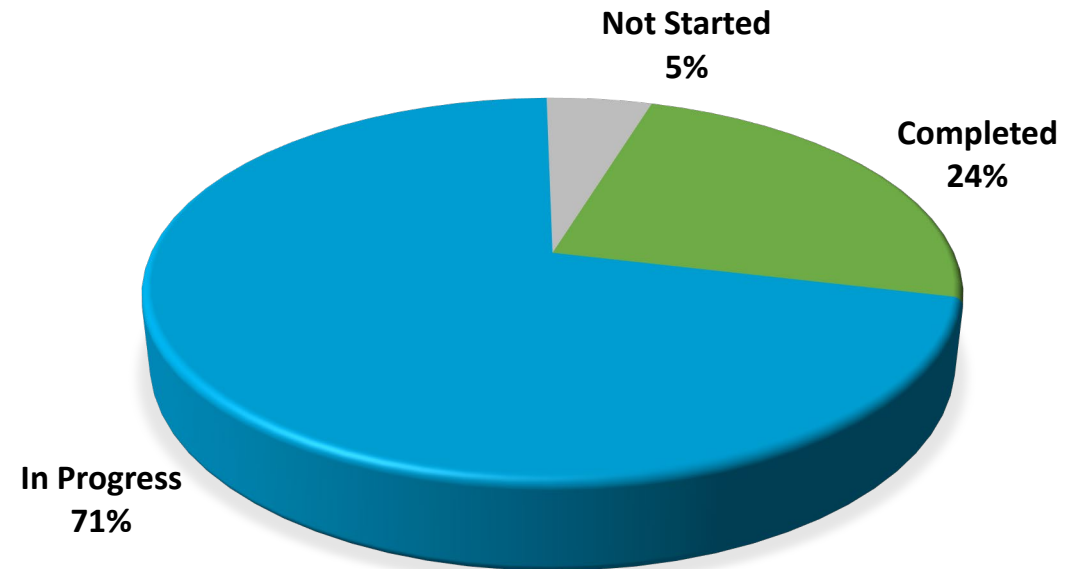California Department of Transportation

Contracting Milestones

JOC
5,200 miles awarded

CMGC
2,300 miles awarded

To Award
2,300 miles

PROJECT DELIVERY

Progress on Preconstruction
Environmental, Permitting and Design Progress

April 2023

Completed 34%

In Progress 66%

January 2023

Not Started 5%

Completed 24%

In Progress 71%
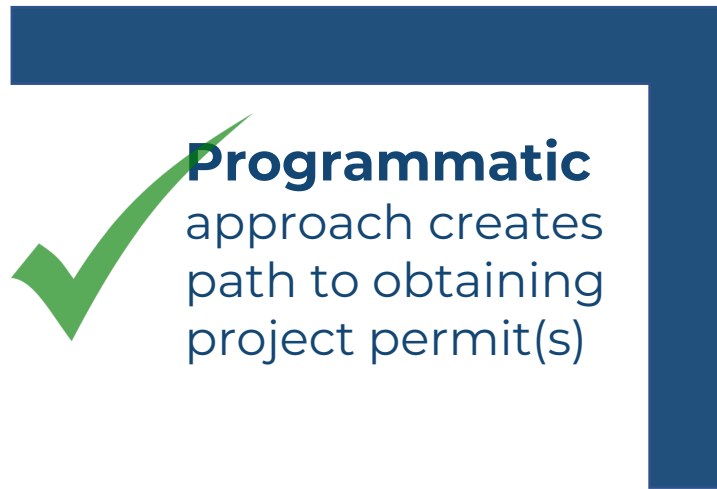
*Data as of 14 April 2023

Environmental Progress

Programmatic approach creates path to obtaining project permit(s)

Letter of Intent with Federal Land Management Agencies

Project Specific

• Strategy of Avoidance

• Studies & Field Reviews

• Environmental Clearance

• If needed, Obtain Permit(s)

Construction Readiness

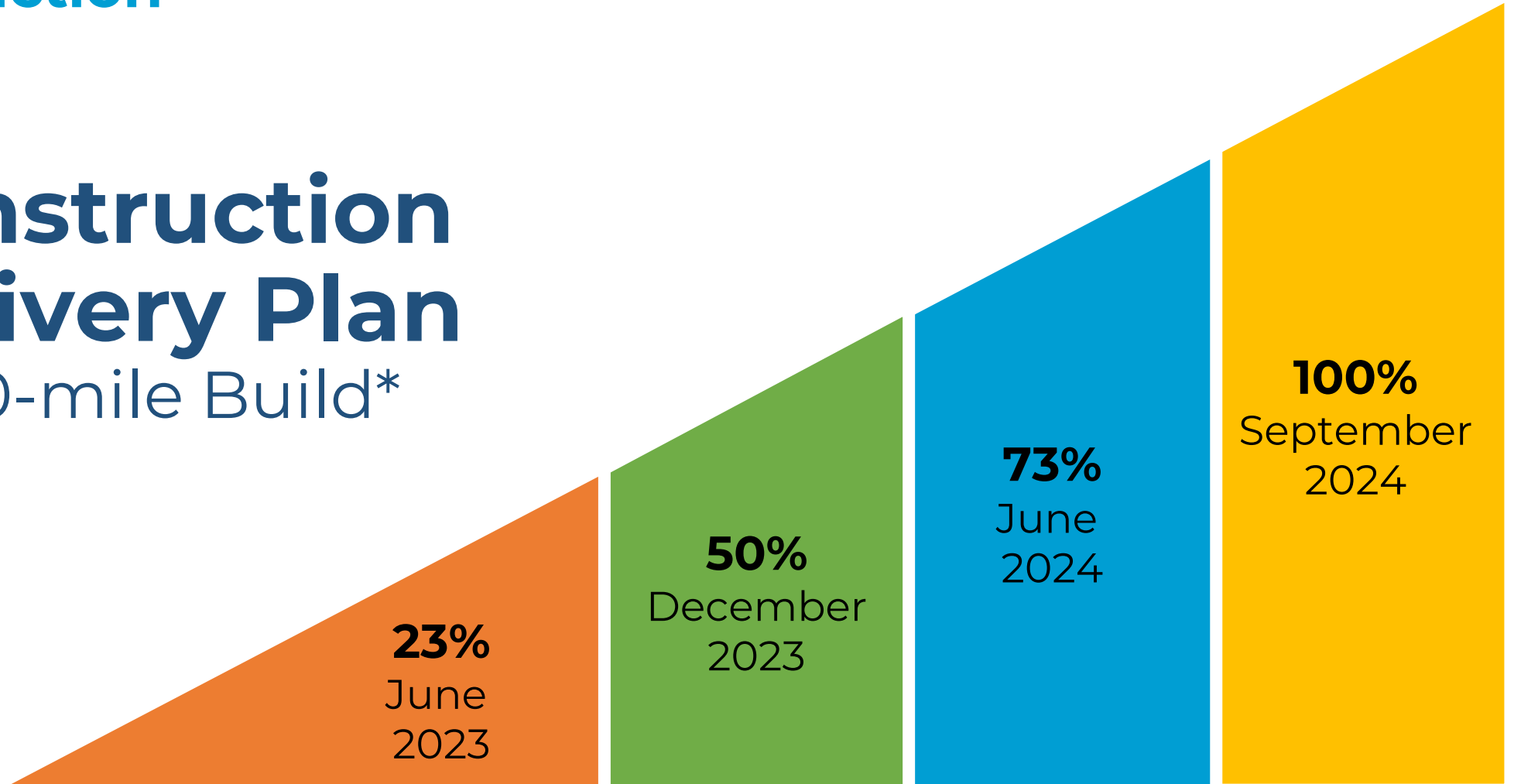On-going Coordination with CDT

Securing Permits and Approvals

Implementing the Delivery Plan

Partnership with Contractors

Construction Delivery Plan
9,500-mile Build*

23%
June
2023

50%
December
2023

73%
June
2024

100%
September
2024

*Reflects Removal of Arcadian Joint Build Miles

Miles Under Construction

Tony Naughtin
President & Chief Operating Officer

GoldenStateNet

Basics of IRUs:

- An IRU is a **contractual purchase of a long-term right** to:

  - use a telecom carrier's *unused* fiber

  - use a carrier's related network components (i.e. huts)

  - use a telecom carrier's conduit

- A typical IRU:

  - is for a **20 year term, extendable well beyond 20 years**

  - provides ***equitable ownership*** rights with very few limitations

  - is considered to be **a capital expenditure** and is a legitimate use of American Rescue Plan Act (ARPA) funding

Basics of IRUs (continued):

- IRUs are typically for dark fiber, meaning that the **IRU purchaser lights up and operates its own network** on the IRU fiber

- Therefore, IRUs in this MMBI program **will require the State** to:

  - purchase and maintain its **own electronics**

  - build/operate **State-owned repeater huts** to house the required electronics

- To maximize access, the State's IRUs will often require the provider to construct **access vaults in numerous locations**

| GoldenStateNet Update - **Indefeasible Rights of Use (IRUs)**

Benefits of IRUs:

- IRUs will **convert an existing, unused asset** into a public, open-access, middle mile network - fulfilling the middle mile objectives of SB 156

- IRUs can create value for communities with a **faster *time-to-service*** than construction of new fiber will allow

- IRUs cause significantly **less disruption** to land, the environment, and traffic than does new fiber construction

- IRUs are significantly **more cost-effective** than standalone fiber construction, an important factor when funding is constrained.

| GoldenStateNet Update - **Indefeasible Rights of Use (IRUs)**

Benefits of IRUs (continued):

- IRUs provide the **same level of service quality** as newly-constructed segments.

- IRUs can **meet the State's policy goals** for an open-access, high-capacity 288 count fiber cable, with multiple access points

- Compared to new construction, IRUs **mitigate the unknown schedule and cost risks** since the IRU fiber has already been constructed and is in place

- IRUs **include ongoing operations and maintenance** to ensure reliable service to last mile providers and other MMBI customers

GoldenStateNet Update - **Indefeasible Rights of Use (IRUs)**

GoldenStateNet's Recommendation:

- **GSN recommends using IRU segments** for the MMBI network where existing infrastructure is available and aligned to the defined MMBI routes

- This will enable the MMBI network to have **more overall capacity and accessibility at a more cost-effective price point** compared to construction alternatives – plus a *faster time-to-service*

Scott Adams
Deputy Director

Broadband and Digital Literacy

California Department of Technology

Stakeholder Engagement

CDT, CPUC, Caltrans, and other state agency partners have engaged with thousands of California partners and stakeholders on Broadband For All programs and initiatives over the last several months:

- Large-scale virtual meetings
- In-person Regional Planning Workshops
- Individual Meetings and Consultations
- Monthly Email Updates
- Broadband for All Portal

23

Stakeholder Engagement (since last meeting)

Large Convenings
- Feb/Mar – (12) Digital Equity Working Group Sessions
- 4/7 -   BB4All, DE, and BEAD Webinar for ISPS
- BB4All, DE, and BEAD Regional Workshop
  - 4/14 – Merced
  - 4/15 – Fresno
  - 4/21 – San Diego

Related Engagements
- 2/6 -   California Tribal Nations Summit
- 2/22 - Digital Equity Los Angeles Coalition
- 3/10 - Capitol Region Coalition for Digital Inclusion
- 3/13 - Central Valley Immigrant Integration Collaborative
- 3/28 - Bay Area Digital Equity Coalition
- 3/23 - Community Economic Resilience Fund Program Kickoff
- 4/10 - CASF Annual Public Workshop
- 4/12 - Insure the Uninsured Project Digital Equity Boot Camp

Stakeholder Engagement - upcoming

BB4All, DE, and Bead Planning Workshops

- 4/27 - Chico
- 4/28 - Santa Rosa
- 5/3 - Eureka
- 5/11 - Sacramento
- 5/12 - Grass Valley
- 5/16 - Inland Empire
- 5/19 - Los Angeles
- 5/30 - Tuolumne
- 6/1 - Santa Maria
- 6/2 - Seaside

Robert Osborn
Director, Communications Division

California Public Utilities Commission

Local Agency Technical Assistance

$50 Million for Local and Tribal Governments

- To facilitate last-mile broadband infrastructure projects

- Supporting local agency and Tribal efforts to expand broadband to families and communities lacking sufficient internet access

Applications

- 90 grants awarded a total of $40.45 million through March 2023

- From August through March 2023, 120 applications requested $54.47 million

Eligibility

- Non-tribal LATA applications no longer accepted as local agency requests exceeded the allocated $45 million

- Tribal governments still encouraged to apply, with $2.4 million in funding still available for tribes.

County Map of Technical Assistance Applications

New Public Map

Eligible Funding Areas

Based on stakeholder feedback, the CPUC made the following changes:

- Removed pre-defined priority funding areas

- Underlying data better reflects the number of unserved locations

- Scoring for existing broadband service need based on socio-economic metrics.

- New FFA Public Map will aid development of last-mile grant funding proposals.

California Public Utilities Commission
Federal Funding Account
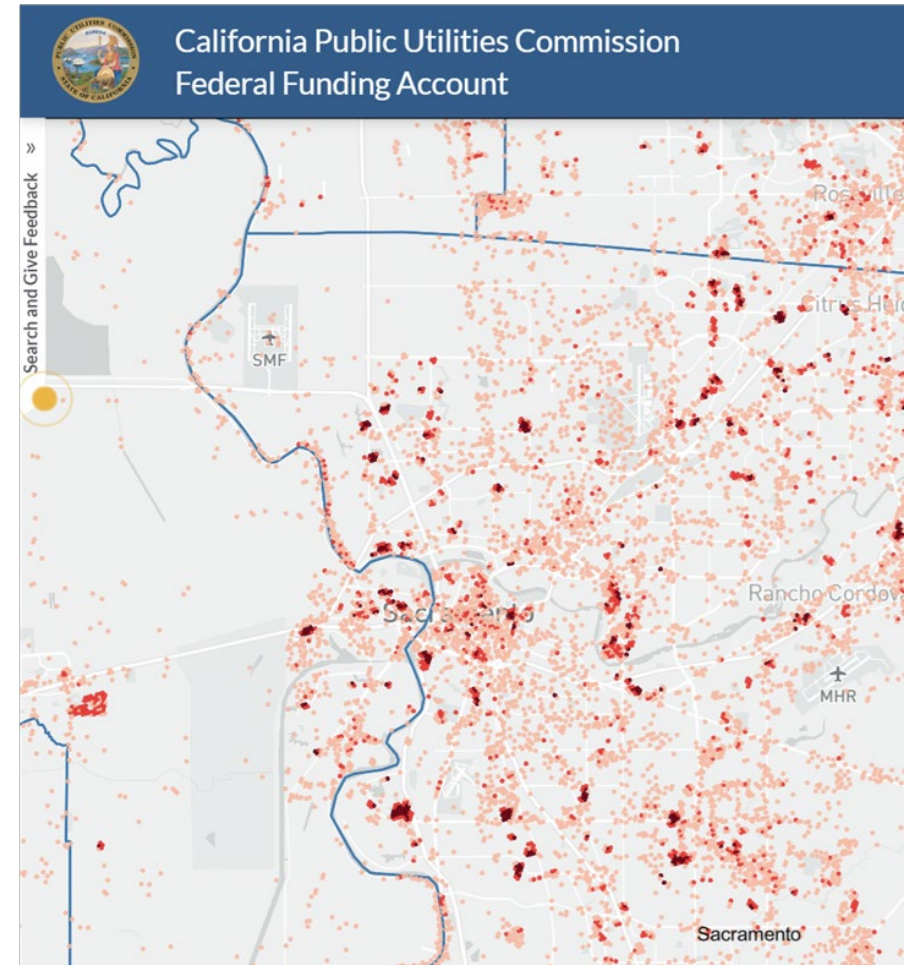
California Advanced Services Fund Broadband Grants

1 Adoption

Grants to public entities and community-based organizations for digital literacy and broadband access projects

- 105 projects awarded $8.6 million (current FY)
- Action on 13 applications requesting $9.46 million in 2023 2Q

2 Infrastructure

Subsidizes the cost of middle and last mile infrastructure to expand high quality communications service throughout California

- Current application window closes June 1, 2023
- Public Map to help identify eligible project areas now available

3 Public Housing and Low-Income Communities

Grants to build networks offering free service for low-income residents in communities such as public housing developments, and mobile home parks

- 31 applications for $1.6 million submitted for current 2023 award cycle
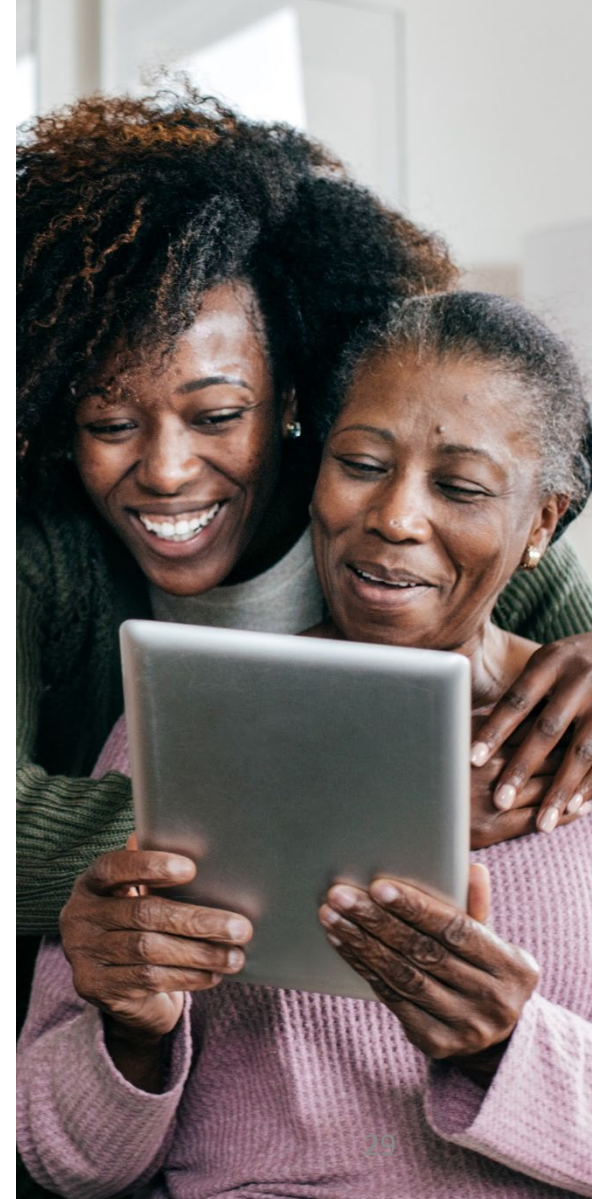
	TECHNICAL ASSISTANCE	LOAN LOSS RESERVE FUND	FEDERAL FUNDING ACCOUNT	CALIFORNIA ADVANCED SERVICES FUND
Amount	$50 million	$750 million	$2 billion	$150 million/year
Summary	Assist local governments & Tribes to prepare for broadband infrastructure investments.	Enable local governments & nonprofits to secure financing for broadband infrastructure.	Fund last-mile broadband infrastructure projects in every county.	Assist with broadband infrastructure deployment & adoption in public housing, Tribes, & unserved areas.
Target	Tribal Entities can still Apply monthly now	Proposed Decision in first half of 2023	Appy June 2023	Apply in the next cycle for adoption, public housing, & line extension accounts

Public Comment Session

Thank you!

Contact:
MiddleMile@state.ca.gov