

The 2023-24 Budget:

Broadband Infrastructure

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SUMMARY

Significant Changes to Original 2021 Broadband Infrastructure Spending Plan. Since July 2021, the administration and the Legislature have made substantive changes in the amounts and sources of funding for the original broadband infrastructure spending plan—a \$6 billion (\$4.3 billion American Rescue Plan [ARP] fiscal relief funds, \$1.7 billion General Fund) multiyear plan enacted in 2021. While the total amount of the spending plan has increased only by \$550 million, the source of funding for the majority of the spending plan is now General Fund. Out of the revised total \$6.55 billion, \$3.64 billion is General Fund and \$2.91 billion is federal ARP fiscal relief funds.

Major Federal and State Broadband Programs and Projects Reaching Critical Milestones and Deadlines. The administration is making important decisions as it moves from planning into development and implementation across the state’s broadband programs and projects. Middle-mile network architecture decisions and final contract awards are expected within the calendar year. Last-mile project grant rounds are opening midyear, ending with awards early next year. Project financing through the Broadband Loan Loss Reserve Fund also is expected in 2023-24. Furthermore, key federal broadband infrastructure programs will announce more federal funding midyear, with the state’s initial allocation of funding expected by the end of 2023-24. The status of each of these programs and projects also highlights important upcoming deadlines, such as the federal ARP fiscal relief fund deadline to enter contracts by December 31, 2024 and spend funds by December 31, 2026.

Governor’s Proposed Delays Help Address Budget Problem... The Governor’s 2023-24 budget proposes to delay \$1.125 billion in General Fund appropriations—\$575 million for the Broadband Loan Loss Reserve Fund and \$550 million for last-mile projects—from 2022-23 and 2023-24 to 2024-25, 2025-26, and 2026-27 to address the projected budget problem in 2023-24. We find the proposed delays to be prudent and worthy of legislative consideration for three main reasons: (1) the delays (if approved) represent a relatively small portion of the funding in the original spending plan—\$1.125 billion of the \$6 billion—across two programs; (2) starting in 2023-24, a significant amount of additional federal funding for broadband infrastructure is expected; and (3) the administering programs remain in planning or early implementation, and the remaining appropriations from 2021-22 to 2023-24 will continue to fund program awards in the near term.

...But Larger Budget Problem Likely at May Revision, With Proposed Future Spending Likely Unaffordable. We anticipate the budget problem to be about \$7 billion larger at May Revision. Moreover, we find that the state likely will be unable to afford the overall spending levels in 2024-25, 2025-26, and 2026-27 proposed in the Governor’s 2023-24 budget, including the resumption of delayed one-time spending for broadband infrastructure. As a result, the delayed broadband infrastructure spending likely will not be affordable in future years without reductions in other areas.

Recommend Spending Federal ARP Fiscal Relief Funds First, Evaluating Remaining General Fund in Spending. We recommend the Legislature direct the administration through trailer bill language to spend federal ARP fiscal relief funds first. We also recommend including increased encumbrance and expenditure reporting. We also recommend the Legislature evaluate the updated spending plan to consider (1) how anticipated additional federal funds could supplement existing and/or planned appropriations; (2) how General Fund spending might be prioritized among existing programs and projects to achieve statutory goals; and (3) how, based on this prioritization, spending delays and/or reductions (including delays in the Governor’s proposed budget) could be made with the least adverse impact on meeting these statutory goals.

BACKGROUND

BROADBAND INFRASTRUCTURE

Various Components of Broadband Infrastructure. Broadband infrastructure allows internet service providers (ISPs) and other entities to provide high-speed internet access to communities and households. This infrastructure can be categorized into three groups based on the distance covered, from longest to shortest distance:

- **Backbone or Long-Haul.** Backbone or long-haul infrastructure often uses high-capacity fiber-optic cables laid over hundreds or thousands of miles to connect different countries, states, and/or regions to the internet.
- **Middle-Mile.** Middle-mile infrastructure also often consists of fiber-optic cables laid over tens or hundreds of miles that, once connected to by an ISP, can deliver local internet access.
- **Last-Mile.** Last-mile infrastructure relies on antennae, cables, poles, wires, and other components to connect middle-mile infrastructure to individual communities and households.

UNSERVED AND UNDERSERVED HOUSEHOLDS

Federal Communications Commission (FCC) Provides Broadband Definition. The FCC defines broadband as high-speed internet access that provides a minimum of 25 Megabits per second (Mbps) download speed and 3 Mbps upload speed. (Mbps measures how much data can be downloaded or uploaded over a network connection.) Internet access at these speeds allow consumers to use the internet for a variety of activities such as accessing information, studying online, and working remotely. (Other factors such as latency—how long it takes data to travel—and reliability—how long a connection is maintained—also affect whether consumers can access internet service at these speeds.)

Unserviced Households Do Not Have Access to Broadband. Unserviced households can be defined as those without access to broadband (as defined by FCC). According to the California Public Utilities Commission (CPUC), there are 353,494 unserved households in California as of December 31, 2020. (CPUC expects updated data to be published in April 2023.)

Underserved Households Do Not Have Access to Faster Broadband. Underserved households can be defined as those with access to broadband, but not at 100 Mbps download speed and 20 Mbps upload speed. Faster broadband gives consumers the ability to, for example, do various internet activities simultaneously across multiple devices. According to CPUC, there are 743,387 underserved households in California as of December 31, 2020.

STATE'S 2021 BROADBAND INFRASTRUCTURE SPENDING PLAN

Administration and Legislature Reached Three-Year, Multibillion Dollar Broadband Infrastructure Agreement in 2021. In July 2021, the administration and the Legislature agreed to spend \$6 billion over three fiscal years (starting in 2021-22) on broadband infrastructure. Out of the \$6 billion in the 2021 agreement, \$4.3 billion came from federal ARP fiscal relief funds and \$1.7 billion came from the General Fund. (ARP fiscal relief funds must be encumbered [that is, obligated or under contract] by December 31, 2024 and expended [that is, spent on costs incurred] by December 31, 2026.)

Three Broadband Infrastructure Programs and Projects Funded by Spending Plan. The 2021 agreement, now spending plan, funds three related broadband infrastructure programs and projects:

- **Statewide Open-Access Middle-Mile Network.** The state is building, leasing, and purchasing middle-mile infrastructure to create a network deployed primarily along the state's highways and other rights of way.

The middle-mile network is expected to be available to ISPs, public entities, and other organizations that can deliver broadband, particularly to unserved and underserved communities and households. The 2021 spending plan appropriated \$3.25 billion in ARP fiscal relief funds in 2021-22 for the middle-mile network.

- **Last-Mile Projects.** The state is providing grants to ISPs, public entities, and other organizations to fund last-mile infrastructure projects that connect unserved and underserved communities and households to middle-mile infrastructure. The 2021 spending plan appropriated \$2 billion (\$1.1 billion ARP fiscal relief funds and \$900 million General Fund) across three fiscal years for last-mile project grants through CPUC’s California Advanced Services Fund (CASF) program’s Federal Funding Account (FFA).

- **Broadband Loan Loss Reserve Fund.**

The Broadband Loan Loss Reserve Fund will be a program within CPUC’s CASF program that will provide local government entities and nonprofit organizations with grants to help them, for example, pay the costs of debt issuance and establish and fund reserves for broadband infrastructure projects. The 2021 spending plan appropriated \$750 million General Fund over three fiscal years for the Broadband Loan Loss Reserve Fund.

Figure 1 provides appropriations by fiscal year and allocations by program or project as approved in the state’s original 2021 broadband infrastructure spending plan.

Chapter 112 of 2021 (SB 156, Committee on Budget and Fiscal Review) Implements the Broadband Infrastructure Agreement. The Legislature also passed (and the Governor signed) SB 156 in July 2021 to implement the broadband infrastructure agreement. Senate Bill 156 establishes the roles and responsibilities of state government entities involved in implementation, including the Department of Technology (CDT), the California Department of Transportation (Caltrans), and CPUC; requires the \$2 billion appropriation for last-mile infrastructure projects to be evenly split between rural and urban counties; and provides some prioritization of program and project activities, such as identification of priority middle-mile network locations that will enable last-mile projects to connect unserved communities and households. (The rural-urban allocation split only is required until June 30, 2023, but we understand from CPUC that this split will be maintained thereafter.)

Figure 1

Original 2021 Broadband Infrastructure Spending Plan
(In Millions)

Program or Project	Fiscal Year	Funding Source		
		General Fund	Federal Funds	Total Funds
Middle-Mile Network	2021-22	—	\$3,250 ^a	\$3,250
	2022-23	—	—	—
	2023-24	—	—	—
	Subtotals	(—)	(\$3,250)	(\$3,250)
Last-Mile Projects	2021-22	—	\$1,072 ^b	\$1,072
	2022-23	\$125	—	125
	2023-24	803	—	803
	Subtotals	(\$928)	(\$1,072)	(\$2,000)
Broadband Loan Loss Reserve Fund	2021-22	\$50	—	\$50
	2022-23	125	—	125
	2023-24	575	—	575
	Subtotals	(\$750)	(—)	(\$750)
All Programs and Projects	2021-22	\$50	\$4,322	\$4,372
	2022-23	250	—	250
	2023-24	1,378	—	1,378
	Totals		\$1,678	\$4,322

^a The \$3.250 billion in federal funds for the middle-mile network in 2021-22 was appropriated to the California Department of Technology out of the state’s American Rescue Plan (ARP) fiscal relief allocation.

^b The \$1.072 billion in federal funds for last-mile projects in 2021-22 was appropriated to the California Public Utilities Commission, of which \$550 million was the state’s allocation from the ARP’s Coronavirus Capital Projects Fund and \$522 million was out of the state’s ARP fiscal relief allocation.

CHANGES TO STATE'S 2021 SPENDING PLAN

Two Significant Changes to Spending Plan. Since July 2021, the administration and the Legislature have changed the state's 2021 broadband infrastructure spending plan in two main ways:

- **\$1.4 Billion Shift From Federal ARP Fiscal Relief Funds to General Fund in 2021-22.** Pursuant to Control Section 11.96 of the *2022-23 Budget Act*, the fund source for appropriations totaling \$1.4 billion in 2021-22 shifted from ARP fiscal relief funds to the General Fund—\$887 million for the middle-mile network and \$522 million for last-mile projects. (This shift was made due to increased flexibility in the use of a portion of ARP fiscal relief funds.) After the shift, there is \$2.9 billion in ARP fiscal relief funds (as compared to \$4.3 billion in the 2021 spending plan) allocated in 2021-22 for broadband infrastructure.
- **\$550 Million General Fund Added Across 2023-24 and 2024-25 for Increased Middle-Mile Network Costs.** In June 2022, the Legislature passed (and the Governor signed) Chapter 48 of 2022 (SB 189, Committee on Budget and Fiscal Review). In SB 189, the Legislature stated a goal to appropriate an additional \$550 million General Fund (\$300 million in 2023-24 and \$250 million in 2024-25) for increased costs to build, lease, and purchase the state's middle-mile network.

Figure 6 on page 11 reflects these significant changes (as well as the proposed delays in the *2023-24 Governor's Budget*).

RECENT MAJOR FUNDING INCREASE FOR FEDERAL BROADBAND PROGRAMS

Federal Infrastructure Investment and Jobs Act (IIJA) Included \$65 Billion for Broadband Programs Nationwide. In November 2021, the federal IIJA was signed into law providing \$65 billion for broadband programs. A majority of the funding is managed by the National Telecommunications and

Information Administration (NTIA) through four new and existing broadband programs described below.

Majority of Funding Allocated to Broadband Equity, Access, and Deployment (BEAD) Program. The BEAD program received \$42.45 billion of the \$65 billion total, nearly all of which is to provide states, territories, and other jurisdictions with allocations for broadband adoption and deployment projects (primarily last-mile projects). State allocations from the BEAD program are described below. (This brief focuses on the federal BEAD program and Digital Equity Act programs due to the significant amount of additional federal funding available to the state for broadband programs or projects.)

- **Initial Allocation of \$100 Million to Each State (\$5.3 Billion of Total Program Funds).** Each state will receive an initial allocation of \$100 million, of which \$5 million will be provided at the program outset to support state planning efforts.
- **Additional Allocation to States Based on Unserved Locations in High-Cost Areas (\$4.245 Billion of Total Program Funds).** Each state will receive an allocation based on the number of unserved locations in high-cost areas of their state as a percentage of all such locations nationwide.
- **Allocation of Remaining Funds to States Based on Unserved Locations (\$32.056 Billion of Total Program Funds).** Each state will receive an allocation from remaining program funds based on the number of unserved locations in their state as a percentage of all such locations nationwide.

Digital Equity Act Programs Funding. The Digital Equity Act programs received \$2.75 billion for three grant programs to improve digital equity across specific populations such as low-income households, racial and ethnic minorities, and rural communities:

- **State Digital Equity Planning Grant Program (\$60 Million of Total Program Funds).** Each state will receive an allocation to support its development of a digital equity plan, which will identify barriers to digital equity and plan how to address related

outcomes across program areas such as education and health care.

- **State Digital Equity Capacity Grant Program (\$1.44 Billion of Total Program Funds).** Each state will receive annual allocations over five calendar years to support implementation of their digital equity plans, including related projects.
- **Digital Equity Competitive Grant Program (\$1.25 Billion of Total Program Funds).** Specific types of state entities could receive annual allocations over five calendar years to implement digital equity projects.

Enabling Middle Mile Broadband Infrastructure Program Funding. The Enabling Middle Mile Broadband Infrastructure Program received \$1 billion to build, improve, and/or purchase middle-mile infrastructure. (We do not have any information as to whether or not the state applied for and/or receive a notice of award from this program.)

Tribal Broadband Connectivity Program Funding. The Tribal Broadband Connectivity Program received \$2 billion, in addition to the \$980 million appropriated by the federal Consolidated Appropriations Act of 2021, to provide tribal governments with allocations for broadband adoption and deployment.

Remainder of Funding Overseen by FCC Through Affordable Connectivity Program (ACP). The remaining funding for broadband programs under IIJA is overseen by FCC through the ACP, which provides low-income households with monthly subsidies to pay for internet service and one-time subsidies to pay for internet-connected devices. According to data from the Universal Service Administrative Company, which administers the ACP as directed by FCC, 33 percent of eligible households in California are enrolled in the ACP as of March 6, 2023. (There are almost 6 million eligible households in California.)

STATUS OF MAJOR FEDERAL AND STATE BROADBAND PROGRAMS AND PROJECTS

In this section, we provide high-level updates on the status of each state broadband program and project in the spending plan, as well as on the federal BEAD program and Digital Equity Act programs. **Figure 2** on the next page and **Figure 3** on page 7 provide estimated time lines for each program and project, with specific dates and other details provided under each program or project section. (The time lines below are subject to change based on, for example, administrative delays and funding changes.)

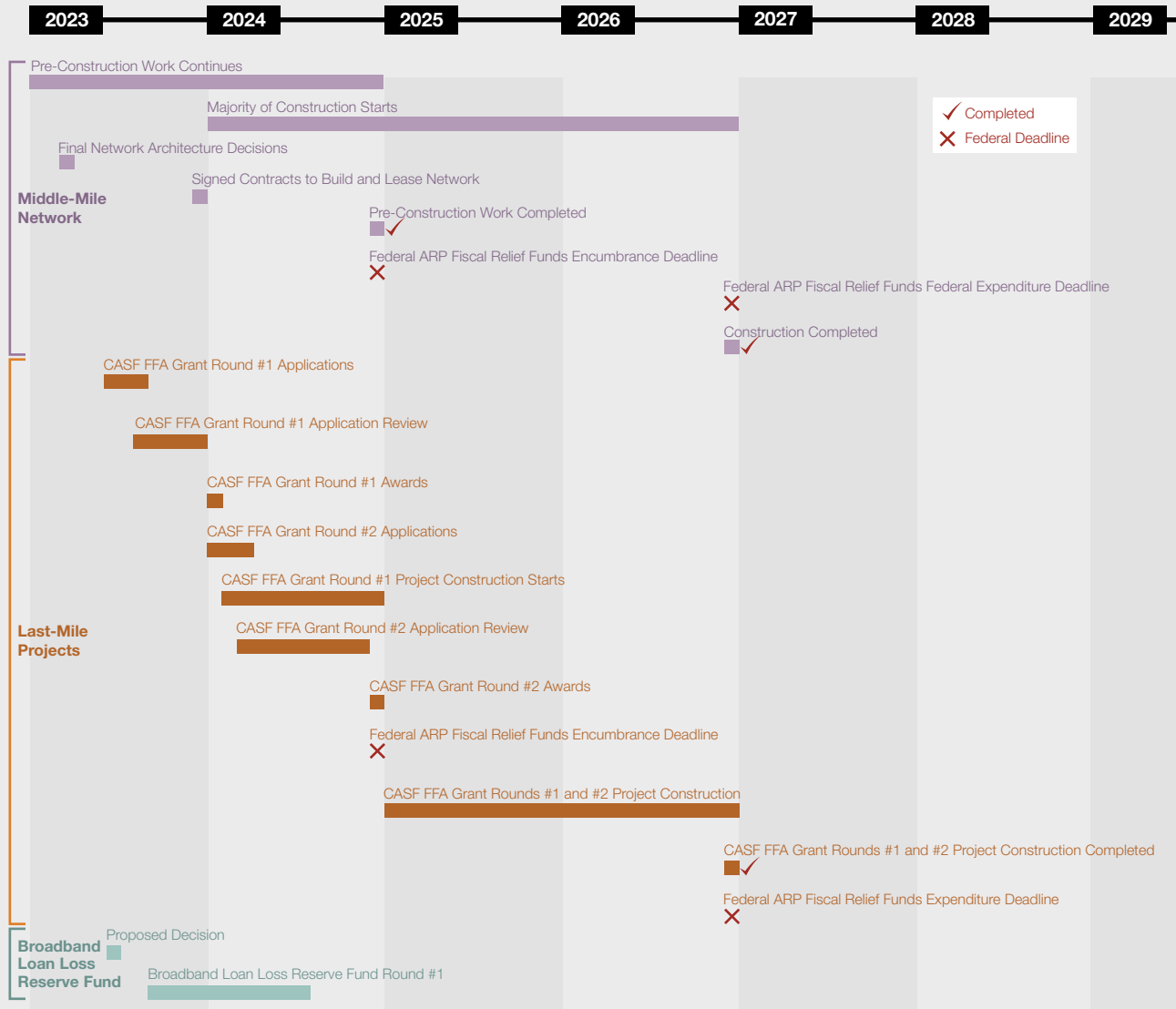
Middle-Mile Network

Estimated Length of 10,000 Miles at Total Cost of More Than \$4.5 Billion. In May 2022, CDT presented a network map that spans an estimated 10,000 miles across the state. Caltrans uses the map to guide its pre-construction work on individual network segment projects, which Caltrans expects to complete by the end of 2024. CDT estimates that the total cost to build the network (that is, the cost of standalone construction projects without, for example, any leasing or purchasing of middle-mile infrastructure) is more than \$4.5 billion. However, Caltrans' pre-construction work could determine that at least some segments are not needed to complete the network.

Decisions to Finalize Network Architecture Expected in Next Few Months. CDT expects to finish its review of network construction contract bids and lease and purchase agreements in the next few months. Once its review is finished, CDT will finalize the network architecture as a combination of joint-build construction projects, leases and purchases of existing middle-mile infrastructure, and standalone construction projects. This combination will allow CDT to reduce the total cost of the network from the more than \$4.5 billion needed for a standalone network build to within the \$3.8 billion appropriated by the Legislature.

Figure 2

Estimated Major State Broadband Program and Project Time Lines^a

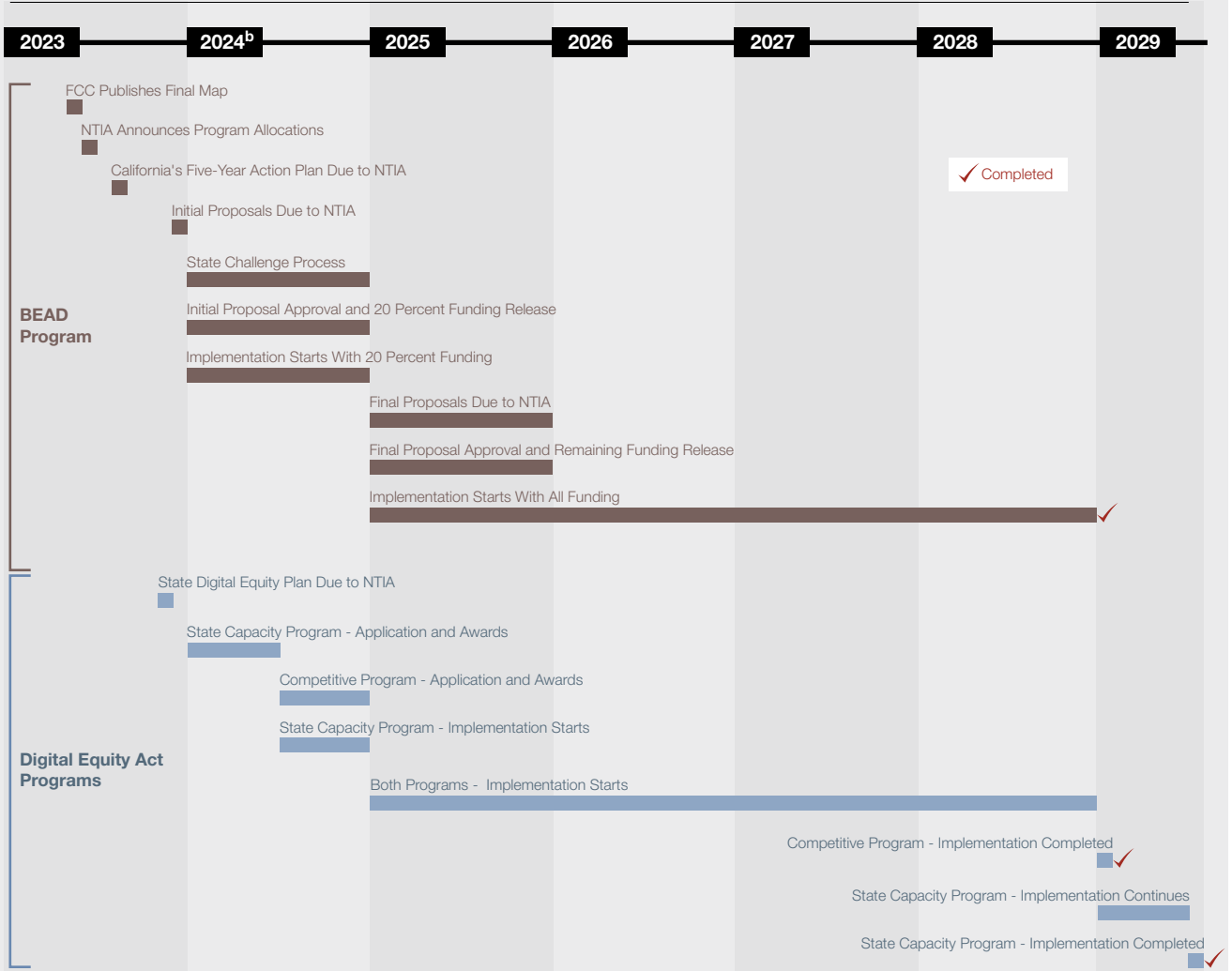


^a Approximate time lines based on information available as of March 20, 2023.

ARP = American Rescue Plan and CASF FFA = California Advanced Services Fund Federal Funding Account.

Figure 3

Estimated Major Federal Broadband Program and Project Time Lines^a



^a Approximate time lines based on information available as of March 20, 2023.

^b Full-year time lines in 2024 and future years do not indicate specific dates or time lines. Rather, they indicate time frames within which specific dates or time lines will be forthcoming.

BEAD = Broadband Equity, Access, and Deployment; FCC = Federal Communications Commission; and NTIA = National Telecommunications and Information Administration.

Signed Contracts to Build, Lease, and Purchase Network Expected by End of 2023.

CDT expects all contracts necessary to build, lease, and purchase individual network segments will be signed by the end of 2023, which will encumber both the federal ARP fiscal relief funds and General Fund. However, of the \$3.8 billion appropriated by the Legislature, only \$2.4 billion is federal ARP fiscal relief funds that must be encumbered by December 31, 2024 and expended by December 31, 2026. (General Fund is not subject to the same encumbrance and expenditure deadlines.)

Estimated Network Maintenance and Operations Costs Not Yet Available. Once the network is completed, it will need to be maintained and operated as ISPs and other entities connect to the network and provide broadband to communities and households. While CDT, GoldenStateNet (the network’s third-party administrator), and other entities have outlined considerations for the network’s business model once completed, no estimate of the costs to maintain and operate the network is available at this time.

Last-Mile Projects

CPUC CASF FFA Rulemaking Procedure Complete. In April 2022, CPUC finished its rulemaking procedure for the new FFA within the commission’s CASF program. The decision adopted rules and guidelines for the new FFA, including county designations as rural or urban and calculated allocations for each county in compliance with SB 156. Each county receives an initial allocation of \$5 million. The remainder of the allocation is calculated based on the county’s share of California households, as a proportion of either all rural counties or all urban counties, without access to broadband with at least 100 Mbps download speed. As previously mentioned, while the rural and urban funding split is only maintained through June 30, 2023 by SB 156, we understand from CPUC that they will maintain this split thereafter. **Figure 4** and **Figure 5** provide the allocations by county, divided by rural or urban county designations.

Figure 4

CASF FFA Allocations for Rural Counties

(In Millions)

County	Allocation
Alpine	\$7.0
Amador	57.2
Calaveras	30.8
Colusa	29.0
Del Norte	10.3
El Dorado	111.9
Glenn	25.1
Humboldt	59.5
Inyo	13.2
Kings	37.7
Lake	28.4
Lassen	24.9
Madera	66.6
Mariposa	40.8
Mendocino	57.4
Modoc	23.9
Mono	10.6
Nevada	74.9
Plumas	42.3
San Benito	10.4
Sierra	12.5
Siskiyou	45.8
Sutter	20.4
Tehama	74.8
Trinity	29.7
Tuolumne	15.5
Yuba	39.4
Total	\$1,000.0

CASF FFA = California Advanced Services Fund Federal Funding Account

First CASF FFA Grant Application Round Expected to Open in June, Second Round in January. CPUC expects to open its first CASF FFA grant application round in June, receive all grant applications by August, review the applications from August to December, and award grants in January 2024. A second round also is expected to open in January 2024, receive all grant applications by March, review the applications from March to November, and award grants in December 2024. In each round, construction is expected to continue through the ARP fiscal relief funds expenditure deadline of December 31, 2026. Of the \$2 billion in previous or planned last-mile project appropriations, only \$550 million is ARP fiscal relief funds subject to the deadline.

Figure 5

CASF FFA Allocations for Urban Counties

(In Millions)

County	Allocation
Alameda	\$24.5
Butte	19.2
Contra Costa	16.1
Fresno	61.2
Imperial	14.0
Kern	31.3
Los Angeles	104.7
Marin	11.5
Merced	27.3
Monterey	17.3
Napa	10.7
Orange	92.0
Placer	30.3
Riverside	50.6
Sacramento	38.7
San Bernardino	59.7
San Diego	81.3
San Francisco	10.4
San Joaquin	29.4
San Luis Obispo	22.3
San Mateo	10.4
Santa Barbara	15.9
Santa Clara	36.0
Santa Cruz	10.3
Shasta	32.4
Solano	17.0
Sonoma	19.2
Stanislaus	25.4
Tulare	45.1
Ventura	20.4
Yolo	15.9
Total	\$1,000.5^a

^a Difference from \$1 billion total allocation due to rounding.

CASF FFA = California Advanced Services Fund Federal Funding Account

\$1 Billion in Awards Available in First Round.

CPUC also estimates the total amount of grants available in the first CASF FFA grant application round will be \$1 billion (including all \$550 million in ARP fiscal relief funds). While CPUC has indicated that the total amount of grants available in the second round will be \$1 billion, we would note that the Governor's 2023-24 budget proposes to delay at least \$350 million of the \$1 billion that is available (after first round awards) from 2023-24 to 2025-26 (\$200 million) and 2026-27 (\$150 million). (We provide more detail on the proposed delays in the "2023-24 Governor's Budget" section later in this brief.)

Broadband Loan Loss Reserve Fund

CPUC Broadband Loan Loss Reserve Fund Rulemaking Procedure Remains Active.

The CPUC rulemaking procedure for the Broadband Loan Loss Reserve Fund remains active, with a revised staff proposal and proposed decision to implement the fund expected by July 1. Both CPUC and the California Infrastructure and Economic Development Bank entered into an interagency agreement on the Broadband Loan Loss Reserve Fund in November 2022, and plan to continue working together on its implementation.

First Broadband Loan Loss Reserve Fund Application Round in 2023-24. While the first application round of the Broadband Loan Loss Reserve Fund is expected to open in 2023-24, the exact time line to receive and review applications and award funds remains unknown. While the total amount of grants available in the first round is also unknown, the Governor's budget proposes \$175 million in 2023-24 with the remaining balance of \$575 million delayed to 2024-25 (\$300 million) and 2025-26 (\$275 million).

Federal BEAD Program

Initial Planning Funds Awarded in November 2022. NTIA awarded the state \$5 million in initial planning funds from the state's initial allocation of \$100 million in November 2022. These funds must be used to support state planning efforts, including the preparation and submission of a five-year action plan. The five-year action plan will, for example, provide information about the state's approach to and goals for broadband access, adoption, affordability, and equity. NTIA expects the five-year action plan to inform the state's initial proposal on how it will use the first 20 percent of its BEAD program allocation. The state must submit a five-year action plan to NTIA no later than August 28.

State's Program Allocation Expected by End of June. NTIA will announce each state's program allocation from the BEAD program by the end of June. Once NTIA announces program allocations, each state must submit an initial proposal that describes how the state plans to use program funds for grants to ISPs, public entities, and other organizations within 180 days. Based on NTIA's time line, initial proposals will need to be submitted to NTIA before the end of 2023. Once approved, the state will

receive no less than 20 percent of the state's program allocation. All remaining funds will be available once the state submits, and NTIA approves, a final proposal (no later than one year after NTIA approves the initial proposal).

CPUC Federal BEAD Program Rulemaking Procedure Now Active. The CPUC rulemaking procedure for the state's implementation of the federal BEAD program is now active. An order instituting rulemaking provides initial issues to address including specific program definitions, prioritization of proposed broadband projects, and the implementation of a challenge process. According to the order instituting rulemaking, CPUC intends to complete its rulemaking procedure within 18 months.

Federal Digital Equity Act Programs

State Digital Equity Planning Grant Program Award Received in November 2022. NTIA awarded the state \$4 million from the State Digital Equity Planning Grant Program to support its development of a digital equity plan. California's State Digital Equity Plan must be submitted to NTIA no later than November 30.

More Information Forthcoming on Capacity and Competitive Grant Programs. NTIA will provide more information on the Capacity and Competitive Grant Programs to states and other jurisdictions over the next several months.

GOVERNOR'S 2023-24 BUDGET

PROPOSAL

Governor's 2023-24 Budget Proposes Delay of \$1.125 Billion General Fund in Previous and Planned Appropriations. To help address the projected budget problem in 2023-24, the Governor's 2023-24 budget proposes to delay \$575 million General Fund for the Broadband Loan Loss Reserve Fund and \$550 million General Fund in last-mile project funding—otherwise scheduled for 2022-23 and 2023-24—to 2024-25, 2025-26, and 2026-27. If approved by the Legislature, the proposed delays would maintain \$175 million General Fund for the Broadband Loan Loss Reserve Fund and \$253 million General Fund for last-mile projects in 2023-24.

Administration Maintains \$300 Million General Fund in 2023-24 for Increased Middle-Mile Network Costs. Consistent with the legislative goal in SB 189, the Governor's 2023-24 budget includes \$300 million General Fund in 2023-24 and \$250 million General Fund in 2024-25 for increased costs to build, lease, and purchase the state's middle-mile network.

Figure 6 shows the updated spending plan, incorporating the previously discussed changes already made as well as the Governor's proposed spending delays.

ASSESSMENT

Governor's Proposed Spending Delays Help Address Current Budget Problem... In [The 2023-24 Budget: Overview of the Governor's Budget](#), our office evaluated the proposed budget solutions in the Governor's 2023-24 budget. We found that the administration's proposed spending-related delays and reductions, including broadband infrastructure spending delays, were a prudent alternative to tapping into the state's reserves. However, we also recommended the Legislature use specific criteria to evaluate which recent augmentations to maintain versus which ones to reduce or delay, potentially considering different spending-related solutions than proposed in the Governor's 2023-24 budget. Based on these criteria, we consider the proposed delays of broadband infrastructure spending worthy of legislative consideration. First, the delays (if approved) would maintain the planned schedule for spending the bulk of the federal and state funding from the original spending plan—\$4.875 billion of the \$6 billion—across the three programs and projects. Second, starting in 2023-24, a significant amount of additional federal funding from the BEAD program (which we discuss in more detail below) is expected. Third, CPUC's CASF FFA grant program and Broadband Loan Loss Reserve Fund program remain in planning or early implementation, and

the remaining appropriations from 2021-22 to 2023-24 will continue to facilitate program funding and grant awards.

...But Larger Budget Problem Likely at May Revision, With Proposed Future Spending Likely Unaffordable. However, in *The 2023-24 Budget: Multiyear Assessment*, our office projects the budget problem to increase at May Revision by about \$7 billion. Moreover, we find that the state likely will be unable to afford the overall spending levels in 2024-25, 2025-26, and 2026-27 proposed in the Governor's 2023-24 budget, including the resumption of delayed one-time spending for broadband infrastructure. Therefore, in order to preserve the state's reserves to pay for core services if revenues decline further or in the event of a recession, we recommend the Legislature consider additional spending-related delays and reductions than currently proposed by the Governor. As a result, the delayed broadband infrastructure spending likely will not be affordable in future years without reductions in other areas.

Additional Federal Funds From BEAD Program Available Starting in 2023-24. Though the state's BEAD program allocation will not be available until the end of June, the state likely will receive up to 20 percent of its allocation by the end of 2023-24. We anticipate this allocation to be in the tens if not hundreds of millions of dollars. A significant amount of additional federal funds—at least in the hundreds of millions of dollars—is expected thereafter by the end of 2024-25, when the state will receive the remaining 80 percent of its program allocation. While the IJA requires states use federal funds for broadband infrastructure to supplement and not supplant state

Figure 6

Updated Broadband Infrastructure Spending Plan, Incorporating Delays Proposed in Governor's Budget (In Millions)

Program or Project	Fiscal Year	Funding Source		
		General Fund	Federal Funds	Total Funds
Middle-Mile Network	2021-22	\$887 ^a	\$2,363 ^b	\$3,250
	2022-23	—	—	—
	2023-24 ^c	300	—	300
	2024-25 ^c	250	—	250
	2025-26	—	—	—
	2026-27	—	—	—
Subtotals		(\$1,437)	(\$2,363)	(\$3,800)
Last-Mile Projects^d	2021-22	\$522 ^e	\$550 ^f	\$1,072
	2022-23	125	—	125
	2023-24	253	—	253
	2024-25	200	—	200
	2025-26	200	—	200
	2026-27	150	—	150
Subtotals		(\$1,450)	(\$550)	(\$2,000)
Broadband Loan Loss Reserve Fund^g	2021-22	—	—	—
	2022-23	—	—	—
	2023-24	\$175	—	\$175
	2024-25	300	—	300
	2025-26	275	—	275
	2026-27	—	—	—
Subtotals		(\$750)	(—)	(\$750)
All Programs and Projects	2021-22	\$1,409	\$2,913	\$4,322
	2022-23	125	—	125
	2023-24	728	—	728
	2024-25	750	—	750
	2025-26	475	—	475
	2026-27	150	—	150
Total		\$3,637	\$2,913	\$6,550

^a Pursuant to Control Section 11.96 of the 2022-23 Budget Act, the Department of Finance shifted \$887 million for the middle-mile network from American Rescue Plan (ARP) fiscal relief funds to General Fund in 2021-22.

^b The remaining \$2.363 billion in federal funds for the middle-mile network in 2021-22 is state ARP fiscal relief funds.

^c The additional \$550 million General Fund for the middle-mile network (\$300 million in 2023-24 and \$250 million in 2024-25) is consistent with the legislative goal to provide these amounts (subsequent to the submission of a statutory report) in Chapter 48 of 2022 (SB 189, Committee on Budget and Fiscal Review).

^d All last-mile project amount and timing changes from the initial spending plan for 2023-24 through 2026-27 are proposed changes in the Governor's 2023-24 budget.

^e Pursuant to Control Section 11.96 of the 2022-23 Budget Act, the Department of Finance shifted \$522 million for last-mile projects from ARP fiscal relief funds to General Fund in 2021-22.

^f The remaining \$550 million in federal funds for last-mile projects in 2021-22 is the state's allocation from the ARP's Coronavirus Capital Projects Fund.

^g All Broadband Loan Loss Reserve Fund amount and timing changes from the initial spending plan for 2021-22 through 2025-26 are proposed changes in the Governor's 2023-24 budget.

funds, the appropriations that remain for last-mile projects in 2023-24 and that are delayed to 2024-25, 2025-26, and 2026-27 could be supplemented with funds from the state's BEAD program allocation.

Delaying or Reducing General Fund for Increased Middle-Mile Costs in 2023-24 and 2024-25 Another Potential Solution to Budget Problem. Consistent with the legislative goal in SB 189, the Governor’s 2023-24 budget maintains \$550 million General Fund across 2023-24 and 2024-25 for the middle-mile network. However, given the budget problem, the Legislature might consider whether this increased General Fund spending could be delayed or reduced.

- ***Network Architecture Decisions and Ongoing Pre-Construction Work Likely Will Affect Total Network Cost.*** CDT maintains that all 10,000 miles of the middle-mile network must be built, leased, and purchased to be available for last-mile projects (at least some of which will be funded by the CASF FFA and federal BEAD programs), to increase competition among ISPs, and cover maintenance and operations costs. Whether or not all 10,000 network miles are needed will not be known, however, until final decisions are made about the network’s architecture, pre-construction work is completed, and its maintenance and operations costs are estimated. The absence of this information cautions against making assumptions about the required length of the middle-mile network and its associated cost.
- ***Pre-Construction Work Also Will Determine the Order and Sufficiency of Network Segments.*** CDT expects pre-construction work led by Caltrans to be completed by the end of 2024. This pre-construction work will determine whether planned segments of the middle-mile network will be sufficient for its completion, and in what order each of the segments should be built, leased, and/or purchased. Without knowing which segments are sufficient and in what order they should be completed, prioritizing the encumbrance and expenditure of the \$2.363 billion in ARP fiscal relief funds by the federal deadlines to build, lease, and purchase initial network segments would be prudent. Subsequent segments

could be built with General Fund as they are deemed necessary to sufficiently complete the network. This approach would maintain progress on the middle-mile network but, in the near term, make available additional General Fund in 2023-24 to solve the budget problem.

- ***Federal BEAD Program Permits Use of Allocations on Middle-Mile Infrastructure Costs.*** Federal BEAD program rules allow states to use some of their allocations for middle-mile infrastructure costs, if additional middle-mile infrastructure is required to connect last-mile projects. While most of the federal BEAD program allocation likely will be used for last-mile projects, at least some additional federal funds (though not the entire \$550 million) could be used for the middle-mile network.

Budget Constraints Warrant Prioritizing Among Goals and Projects. More than half of the funding in the updated broadband infrastructure spending plan—\$3.637 billion out of the \$6.55 billion—is now General Fund. While prioritizing the encumbrance and expenditure of ARP fiscal relief funds to meet federal deadlines is important, General Fund resources are more flexible and can be reconsidered in order to address the immediate budget problem. Moreover, considering whether the current prioritization of available General Fund will achieve the goals in SB 156 is important. For example, the expeditious connection of unserved and underserved communities (a goal stated for the CASF FFA) might warrant redirection of at least some available funding from one program or project to another. The Broadband Loan Loss Reserve Fund, for example, might help local governments and nonprofit organizations finance broadband infrastructure projects, but current economic conditions might favor direct awards of last-mile project funding to some of those same entities.

RECOMMENDATIONS

Prioritize Use of ARP Fiscal Relief Funds to Meet Federal Deadlines. We recommend the Legislature prioritize encumbrance and expenditure of the \$2.363 billion in federal ARP fiscal relief funds appropriated for middle-mile network and \$550 million for last-mile projects. The Legislature could consider whether to statutorily direct CDT and CPUC to use these funds before any General Fund is encumbered and expended. We also recommend the Legislature consider requiring more frequent updates on encumbrance and expenditure information from DOF to ensure federal deadlines will be met. The United States Department of the Treasury currently requires the state to file quarterly encumbrance and expenditure reports but, to avoid the potential loss of federal funds, the Legislature might consider requiring monthly reports until December 31, 2026.

Evaluate Updated Spending Plan and Prioritize Available General Fund to Achieve Statutory Goals. We recommend the Legislature evaluate the updated spending plan to consider (1) how anticipated additional federal funding from the IIJA could supplement existing and planned appropriations; (2) how General Fund spending might be prioritized among existing programs and projects to achieve the goals of SB 156; and (3) how, based on this prioritization, spending delays and/or reductions (including delays in the Governor's proposed budget) could be made with the least adverse impact on meeting these statutory goals.

Consider Delaying or Reducing General Fund Appropriation for Increased Middle-Mile Network Costs as One Potential Budget Solution. We recommend the Legislature consider, as part of its evaluation of the updated spending plan and prioritization of available General Fund, delaying or reducing the \$550 million General Fund across 2023-24 and 2024-25 for increased costs to build, lease, and purchase the state's middle-mile network. While this delay or reduction could affect the architecture and length of the network, our assessment supports consideration of this funding as one potential solution to the budget problem. To help inform its consideration of this potential funding delay or reduction, we also recommend the Legislature request additional information about factors that could affect the total cost of the network such as the status of pre-construction work on network segments and the estimated ongoing maintenance and operations costs for the network.

LAO PUBLICATIONS

This report was prepared by Brian Metzker, and reviewed by Mark C. Newton and Carolyn Chu. The Legislative Analyst's Office (LAO) is a nonpartisan office that provides fiscal and policy information and advice to the Legislature.

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