



Legislative Council Staff

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Memorandum

Room 029 State Capitol, Denver, CO 80203-1784

Phone: (303) 866-3521 • Fax: (303) 866-3855

lcs.ga@coleg.gov • leg.colorado.gov/lcs

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TO: Interested Persons

FROM: Lauren Morgan, Research Analyst, 303-866-2051

SUBJECT: Broadband Internet Service Programs in Colorado

Summary

This memorandum provides an overview of broadband internet service programs in Colorado, including the Colorado High Cost Support Mechanism; state programs; the ability of local governments to provide broadband; and related recent legislation.

Overview

Not all Coloradans have access to reliable high-speed broadband due to issues related to geography, population, and cost. According to the Governor's Office of Information Technology (OIT), as of August 2022, 14 percent of locations are unserved or underserved, and 166,000 households lack access to the internet. Colorado's programs aimed at addressing the gap in broadband access between urban and rural areas are discussed in the sections below.

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Definitions. Colorado law defines broadband internet service as a retail service that transmits and receives data from the customer's property or determined point of presence to substantially all internet endpoints. The definition of broadband internet service also includes any capabilities that are incidental to and enable the operation of broadband service.¹ In practice, broadband is access to the internet and the speed with which one connects. Colorado law defines broadband as speeds of at least 10 megabits per second downstream and 1 megabit per second upstream or at measurable speeds at least equal to the Federal Communications Commission's definition of high-speed internet access or broadband, whichever is faster.²

¹ Section 40-15-102 (3.5), C.R.S.

² Section 40-15-102 (3.7), C.R.S.

Broadband regulation in Colorado. The Colorado Broadband Office (CBO) oversees the collaboration and coordination across all state agencies that have a role in the provision and deployment of broadband service in Colorado. The Broadband Deployment Board housed within Governor’s Office of Information Technology (OIT) awards grants for deployment of broadband service in unserved areas of the state. The Public Utilities Commission (PUC) administers the Colorado High Cost Support Mechanism (HCSM). The Department of Local Affairs (DOLA) administers broadband planning assistance and middle-mile infrastructure grants, and the Colorado Department of Transportation (CDOT) administers a fiber-optic telecommunications transmission line over areas of the state. Each of these programs is described in more detail below.

Colorado Broadband Office

In June 2022, the Governor directed the CBO to oversee and coordinate broadband activities for all agencies and/or departments.³ Additionally, the Governor directed the CBO to publish a Broadband Strategic Plan.

Broadband Strategic Plan. The CBO published the Broadband Roadmap (roadmap) in August 2022. The roadmap is a five-year plan for investing millions of federal broadband funding to expand fast, reliable, and affordable broadband access Colorado. The roadmap also lays out a plan to accomplish the CBO’s three goals by 2027:

- bolster economic opportunity by connecting 99 percent of in-state households, particularly those in rural communities, to high-speed broadband;
- expand digital inclusion and adoption to achieve affordability, access, and digital literacy by 25 percent; and
- enable Colorado to thrive by fostering and supporting a digital economy.

Data collection. The CBO uses location-level data mapping by analyzing hundreds of data sources including: address records; tax assessment records; imagery and building footprints; census data; land use records; parcel boundaries; and geospatial road and street data.

Funding. Funding is available through both state and federal programs. The HCSM is an ongoing funding source from the state, and is discussed in detail later in this memo. The federal funding that CBO receives comes from programs funded by The American Rescue Plan Act (ARPA) managed by the U.S. Treasury Department, and the Infrastructure, Investment, and Jobs Act (IIJA) managed by the National Telecommunications Information Administration (NTIA). Table 1 provides a timeline for when the CBO plans for the grant programs to be established and award funds distributed.

³Executive Order D 22-023.

Table 1
Connectivity and Funding Utilization

Federal Program	2022	2023	2024	2025	2026	2027
Percent of Households Connected	91.1%	91.1%	92.4%	92.6%	95%	99%
State and Local Fiscal Recovery (SLFRF)	26%	16%	16%	16%	16%	16%
Capital Projects Fund (CPF)	0%	37%	37%	0%	0%	0%
Digital Equity (DE)	0%	53%	47%	0%	0%	0%
Broadband, Equity, Access, and Deployment (BEAD)	0%	0%	0%	25%	25%	25%
Enabling Middle Mile (EMM)	0%	0%	20%	40%	40%	0%

Source: The Colorado Broadband Office Broadband Roadmap.

Broadband Deployment Board

Overview. The Broadband Deployment Board (board) is an independent board comprised of 11 members and is administered by the CBO within the OIT.⁴ The board provides direction and oversight to ensure the goal of “universal access” by awarding grants for broadband development in underserved areas of Colorado. Grants may only be awarded in areas where there is no competition for basic broadband services, as determined by the PUC. Grants cover up to 75 percent of project infrastructure costs, and applicants must demonstrate that their projects represent new broadband deployment, including “last mile” service, and meet additional requirements. Grants may only be awarded to for-profit entities; except that a nonprofit telephone cooperative or a nonprofit rural electric association that existed on May 10, 2014, is also eligible.

Application procedures. The board follows several statutory criteria when considering applications for broadband deployment funds, including, but not limited to:

- applicants must submit their application to the board, applicable local governments, and all providers of broadband in the area when applying for a grant;
- the board must deny funding for applications that overbuild;
- the board must ensure the fastest broadband speed, defined in statute;
- applicants may apply for, and the board may approve, more than one project in a year; and
- all parties have access to an appeals process.

The board has two application cycles: one in winter and one in summer.

Right of first refusal. The right of first refusal process allows an entity that is already operating in an area where a grant was awarded to challenge the grant. If the challenging entity can offer the same level of services as the entity that was awarded the grant, it can assume the grant and build the service.

⁴ The board was previously administered by the Department of Regulatory Agencies. HB21-1109 moved the board to the CBO and reduced the size from 16 members to 11 members.

Funding. Board expenses are paid out of the Broadband Administrative Fund, while funding for the grants is paid out of an account within the HCSM. Since 2018, the PUC has distributed \$128 million from the HCSM to the Broadband Administrative Fund to support rural broadband services through grants awarded by the board.

Projects. For the 2020 application cycles, the board received 37 applications.⁵ The average amount of independent matching funds from the applicants was 36 percent of the total project cost in the 2020 winter grant cycle, and 34 percent of the total project cost for the 2020 summer grant cycle. According to the board, the projects completed in 2020 will provide 20,214 Colorado households with broadband access. As of January 2023, the board has awarded \$51 million in grants to 63 projects.

To view a map of all grant recipient's locations to date, and a list of grant recipients and specific projects can be found at: <https://broadband.colorado.gov/broadband-deployment-board-fund/broadband-fund/awards>.

Colorado High Cost Support Mechanism (HCSM)

The HCSM was created in 1995 to give financial assistance to providers of intrastate telecommunications service through a surcharge on telephone customers and, since 2014, provides funding for broadband service. Effective January 1, 2023, 100 percent of the HCSM fund must be allocated to broadband providers.

Collections. Contributions to the HCSM are determined by the PUC based on providers' retail revenue, which is reported twice a year. The HCSM is administered by the PUC, but a third-party management firm collects the funding, making the HCSM revenue TABOR-exempt. Since 2013, the Colorado Universal Service Charge has been set at 2.6 percent and is required to stay at that rate through July 1, 2023. On or after that date, the PUC may reduce the Colorado Universal Service Charge so that the amount collected in 2024 does not exceed \$25 million. In 2022, approximately 195 telecom providers contributed to the HCSM fund. Contributions are projected to be approximately \$21 million in 2022, a decline of approximately \$625,000 (about 2.9 percent) from 2021. According to the PUC, contributions to the HCSM are declining due to consumers' increasing preference for data usage over voice calls. Data usage is not subject to the HCSM surcharge.

Distributions. Funds collected through the HCSM are distributed to telecommunication providers in both rural and non-rural areas that are considered high-cost geographic areas in which to provide these services. Telecommunication providers include incumbent local exchange carriers (ILEC), wireless carriers, competitive local exchange carriers, and Voice over Internet Protocol (VoIP) providers. Distributions to eligible providers occur quarterly. In 2022, 13 eligible providers received support: one non-rural carrier, ten rural carriers, and two wireless carriers. Table 2 shows contribution and distribution amounts from 2018 to 2022.

⁵2020 is the latest data available for a full application cycle

Table 2
HCSM Contribution and Distribution Amounts, 2018 to 2022

	2018	2019	2020	2021	2022**
Contributions	\$33.1 million	\$29.7 million	\$26.7 million	\$21.5 million	\$20.9 million
Distributions*	\$33.4 million	\$27.7 million	\$25.2 million	\$22.2 million	\$19.3 million

Source: 2022 PUC Staff Annual Report on the Colorado High Cost Support Mechanism.

**Distribution amounts do not include PUC administrative expenses.*

***Estimated amounts.*

The PUC estimates that in 2022, \$12.7 million in HCSM funds will be distributed to support rural broadband deployment. Further, the PUC estimates that in 2023, \$19 million total contributions will be collected, with support to the Broadband Fund estimated to be approximately \$13.7 million. Since 2015, the PUC has distributed a total of \$67.7 million in HCSM funds to support rural broadband deployment.⁶

Broadband Grant Program – Department of Local Affairs

DOLA provides broadband grants to support two general areas: planning and provision of infrastructure. DOLA has set aside \$5 million in Energy Impact Assistance Fund (EIAF) moneys each year to assist in local government efforts, subject to certain conditions. EIAF moneys originate from the state severance tax on energy and mineral production and from a portion of the state's share of royalties paid to the federal government for mining and drilling of minerals and mineral fuels on federally owned land. The grants have been awarded since 2012 and require local governments to provide matching funds.

Colorado Department of Transportation

Colorado Department of Transportation. CDOT administers a fiber optic telecommunication “backbone” along several highways in Colorado. CDOT uses this transmission line to operate its Intelligent Transportation Systems infrastructure to gather data. The department uses this data to manage traffic and traffic incidents while providing real-time information to the traveling public. Partners such as higher education, K-12 education, emergency services, and local transportation agencies also use the transmission line. For example, CDOT has provided high-speed connectivity to 18 school districts and has a fiber-optic lease agreement with Comcast for fiber usage along I-70 between Golden and Vail.

⁶Through the third quarter of 2022.

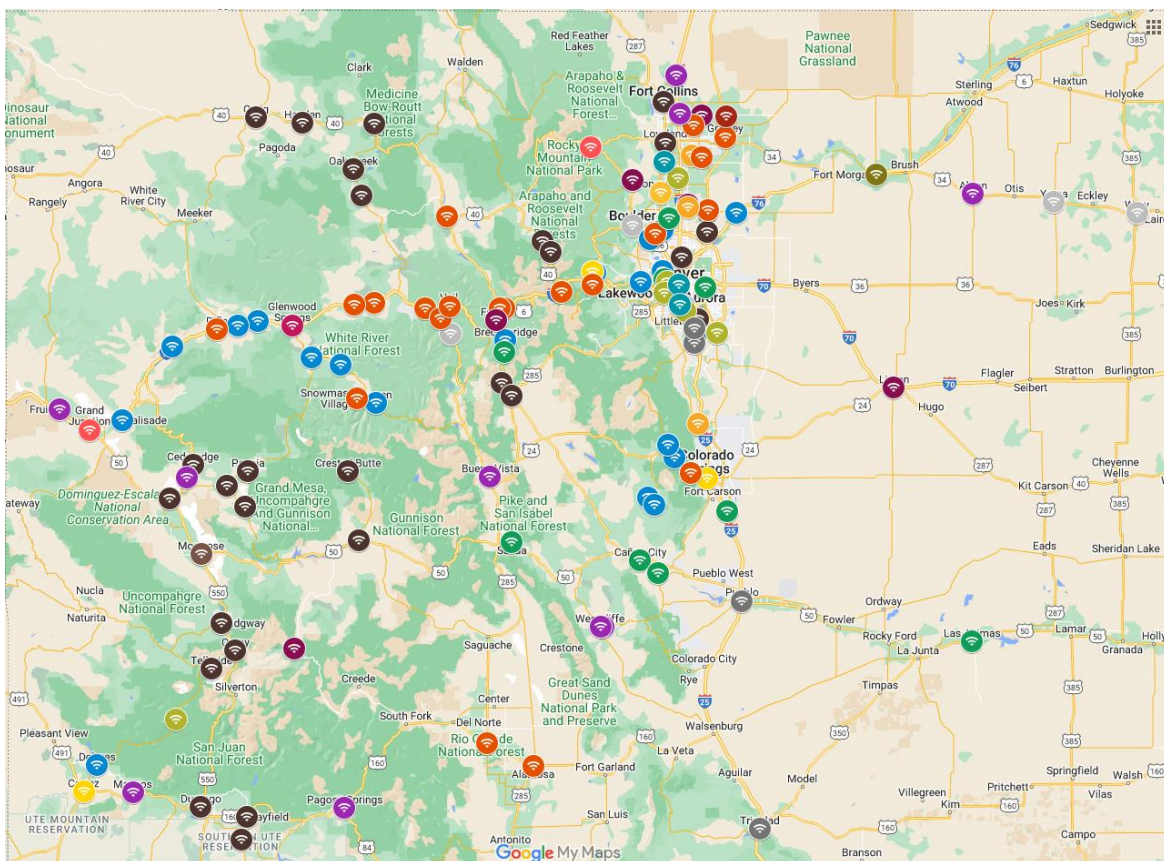
Local Governments

Under state law, local governments may not provide, purchase, lease, or operate telecommunications services or equipment, including high-speed internet or cable television services, for subscribers.⁷ Local governments are exempt from the prohibition if voters authorize the local government to offer broadband services, or if:

- no private provider of telecommunications service provides service within the local government boundary;
- the local government requests that an incumbent provider offer telecommunications services; and
- the incumbent provider declines to offer the service or does not commence service within 14 months of the request.

Figure 3 shows the 123 Colorado cities and towns that have authorized their local governments to provide telecommunications services to date, although not all of these authorized local governments actually offer those services.

Figure 3
Local Governments Authorized to Provide Telecommunications Services



Source: *The Colorado Municipal League.*

⁷ Section 29-27-103, C.R.S

Federal Funding

The National Telecommunications and Information Administration (NTIA) in the federal Department of Commerce works to expand broadband internet access and administers grant programs that further the deployment and use of broadband. In addition to the NTIA, various other agencies in the federal government offer funding for broadband infrastructure and planning, including the Department of Agriculture, and the Federal Communications Commission. More information on funding sources can be found at: <https://broadband.colorado.gov/category/federal-funding>.

Recent Legislation

In addition to the legislation discussed above, the General Assembly has passed several other bills related to broadband in Colorado.

[House Bill 20-1137](#). This bill made changes to the Broadband Development Board's application for grant funding. The bill allows grant applicants to submit a written certificate from a local entity that the area applying for the grant is an underserved area, and requires the board to give substantial weight to an application that has a local entity's written certification.

[Senate Bill 21-060](#). This bill directed the CBO to select and contract with a nonprofit organization to subsidize broadband costs for households based on income.

[House Bill 21-1109](#). This bill directed the Broadband Deployment Board within OIT to develop a process for deploying broadband into critically underserved Colorado areas and households.

[House Bill 21-1114](#). This bill clarified the provision of internet service by a school district to enable individuals associated with the district to access a school district network.

[House Bill 21-1289](#). This bill codified the CBO and established a broadband grant program to address critically unserved Colorado areas, such as households or communities that lack affordable and accessible broadband internet service. The bill also directed the CBO to improve and operate telehealth capabilities; assist with local education providers' broadband capabilities; and expand digital access to government services.

[House Bill 22-1306](#). This bill updated provisions of the grant program to allow the Broadband Deployment Board within OIT to award broadband stimulus grants using funds received as part of the federal American Rescue Plan Act of 2021. The act updated the requirements for awarding grant money to align with the federal act and require that applications comply with final federal regulations regarding use of money under the federal act.