



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@state.co.us • leg.colorado.gov/lcs

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TO: Interested Persons
FROM: Katie Ruedebusch, Fiscal Analyst, 303-866-3001
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 grant programs and other state efforts; local governments' ability 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 costs. According to the Governor's Office of Information Technology (OIT), in Colorado's rural areas, 81 percent of rural households have access to broadband. Governor Hickenlooper wanted to raise rural broadband availability to 85 percent by the end of 2018, and pave the path to achieve 100 percent access for all of Colorado by 2020. Programs aimed at addressing the gap in broadband access between urban and rural areas are discussed in the sections below.

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.

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¹Section 40-15-102 (3.5), C.R.S.

Broadband regulation in Colorado. While the free market largely regulates broadband service in Colorado, the Public Utilities Commission (PUC) within the Department of Regulatory Agencies (DORA) has specific responsibilities. In 2005, Senate Bill 05-152 created a statewide framework for broadband regulation and prevented local government entities from providing high-speed internet access to service subscribers, with certain exemptions, as discussed in the Local Government section below.

Several Colorado agencies have a role in the provision and deployment of broadband service in Colorado. The PUC regulates telecommunications in Colorado and administers the Colorado High Cost Support Mechanism (HCSM). The PUC transfers HCSM funds to the Broadband Deployment Board, which DORA administers, for deployment of broadband service in unserved areas of the state. In addition, OIT houses the Colorado Broadband Data and Development Program, a statewide initiative led by OIT for broadband mapping and planning. The Colorado Department of Transportation (CDOT) also administers a fiber-optic telecommunications transmission line over areas of the state.

Colorado High Cost Support Mechanism (HCSM)

History. The HCSM is a surcharge that applies to all providers of intrastate telecommunications service. The HCSM was created by Senate Bill 98-117 and replaced the Colorado High Cost Fund as the mechanism to achieve basic universal telecommunications service. The High Cost Fund was initially created by House Bill 95-1355. The HCSM is administered by the PUC, but collected funds are held outside the state by Solix, a private management and consulting firm.

Collections. Contributions to the HCSM are determined by the PUC based on providers' retail revenues, which are reported twice a year. The current Colorado Universal Service Charge is 2.6 percent, which was set in 2013. In 2018, an average of 115 telecommunications providers contributed to the fund. Contributions are projected to be approximately \$34.1 million in 2018, a decline of approximately \$2.0 million from 2017. According to DORA, contributions to the HCSM are declining due to consumers cancelling traditional landline service, the proliferation of consumer data packages that bundle data and voice together, and consumers' increasing preference for data over voice.

Distributions. Funds collected through the HCSM are distributed to eligible telecommunications carriers in both rural and non-rural areas that are considered high-cost geographic areas in which to provide telecommunications services. Eligible carriers may include incumbent local exchange carriers, wireless carriers, competitive local exchange carriers, and Voice over Internet Protocol (VoIP) providers. Distributions to eligible providers occur quarterly. In 2018, 13 eligible providers received support: 1 non-rural carrier, 10 rural carriers, and 2 wireless carriers. Table 1 shows contribution and distribution amounts from 2013 to 2017.

Table 1
HSCM Contribution and Distribution Amounts, 2013 to 2018

	2014	2015	2016	2017	2018**
Contributions	\$46.7 million	\$43.3 million	\$38.7 million	\$36.2 million	\$34.1 million
Distributions*	\$52.0 million	\$36.9 million	\$33.3 million	\$33.2 million	\$33.5 million

Source: 2018 PUC Staff Annual Report on the Colorado High Cost Support Mechanism.

*Distribution amounts do not include PUC administrative expenses.

**2018 are estimates.

The PUC is authorized to transfer HCSM funds no longer required to support universal basic services to broadband service deployment in underserved areas of the state. Through August 2018, the PUC has distributed \$22.9 million in HCSM funds to support rural broadband deployment.

Senate Bill 18-002. In 2018, the General Assembly passed [Senate Bill 18-002](#) which increases the contribution revenue from the HCSM to broadband service development. The bill phases in a reallocation of HCSM funds away from reimbursing providers of high-cost landline infrastructure to reimbursing providers of high-cost broadband infrastructure. The PUC is required to distribute certain percentages of HCSM funds (for broadband deployment grant-making from January 1, 2019, to January 1, 2023. Percentages to broadband by year are as follows:

- 60 percent in 2019;
- 70 percent in 2020;
- 80 percent in 2021;
- 90 percent in 2022; and
- 100 percent in 2023.

Funds distributed to the state's non-rural local exchange carriers will be reduced by the same percentage. Distributions to rural telecommunications providers for basic service will stay at the level of support they received on January 1, 2017. Because of this change in the allocation of funding, the PUC no longer needs to determine the amount of HCSM fund required to support universal basic services.

In addition, the Colorado Universal Service Charge remains at 2.6 percent until July 1, 2023. On or after that date, the PUC may reduce the surcharge to ensure that collections do not exceed \$25 million in calendar year 2024.

Broadband Deployment Board Grants

Overview. The 16-member Broadband Deployment Board (board), created by House Bill 14-1328, 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, include “last mile” service and matching funds, 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 procedures when considering applications for broadband deployment funds, including, but not limited to:

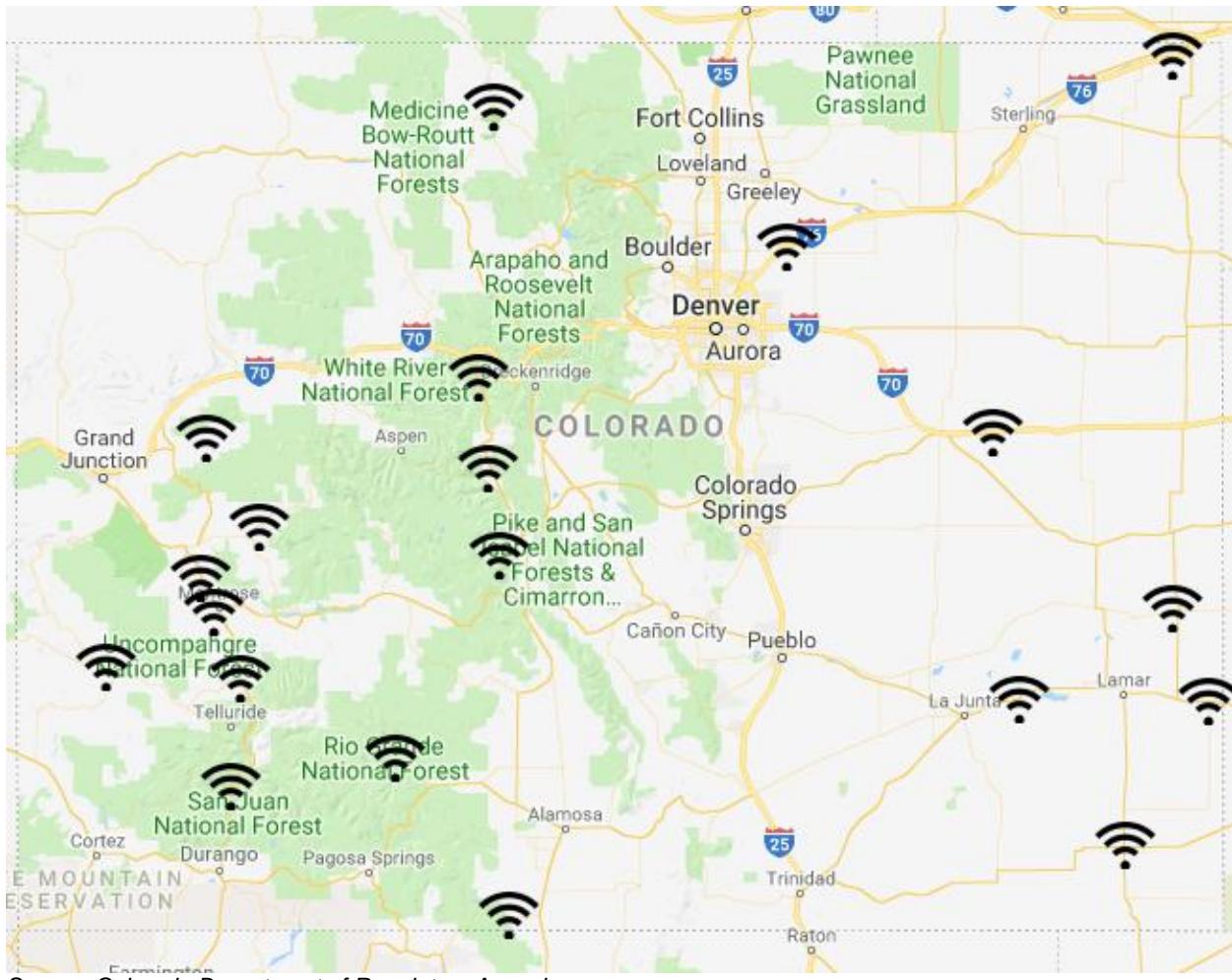
- applicants must submit their application to the board, applicable local governments, and all providers of broadband in the area when applying for a grant;
- the board must deny funding for applications that overbuild;
- the board must ensure the fastest broadband speed as defined in statute;
- applicants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

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.

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. The PUC is authorized to transfer HCSM funds no longer required to support universal basic services to the grant program account. Through August 2018, the PUC has distributed \$22.9 million to the Broadband Administrative Fund to support rural broadband services.

Projects. To date, the board has awarded \$11.5 million in grants to 17 projects. According to the board, the completed projects will provide 13,000 Colorado households with broadband access. A list of grant recipients and specific projects can be found at <https://www.colorado.gov/pacific/dora-broadband-fund/2017-initial-awards-right-first-refusals-and-appeals>. Figure 1 below highlights the locations of the current project recipients.

Figure 1
Broadband Fund Grant Project Locations



Source: Colorado Department of Regulatory Agencies.

The board has 19 applicants through its 2018 grant application process and expects to award \$5.5 million. In the next grant cycle in mid-January 2019, the board anticipates awarding another \$5.5 million for additional projects.

Broadband Grant Program

The Department of Local Affairs (DOLA) provides broadband grants in two areas, planning assistance and middle-mile infrastructure grants. Regional plans must be completed prior to receiving an infrastructure grant. The grants are funded through \$20.0 million that was set aside for broadband grants from DOLA's Energy/Mineral Impact Assistance Fund (EIAF) grant. EIAF funds 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.

Additional Programs

Broadband coordination and mapping. The Colorado Broadband Data and Development Program in OIT is a statewide broadband mapping, planning, and education initiative. It is funded through a \$5.3 million federal grant from the National Telecommunications and Information Administration. For a map of broadband speeds in Colorado, see

http://maps.co.gov/HTML5Viewer_2_5/?viewer=Map.

Colorado Department of Transportation. CDOT administers a fiber optic telecommunications “backbone” along several highways in Colorado. CDOT uses this transmission line to operate its Intelligent Transportation Systems (ITS) infrastructure to gather data, which the department uses 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, local transportation agencies, and tertiary partners, for a variety of public services, 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.

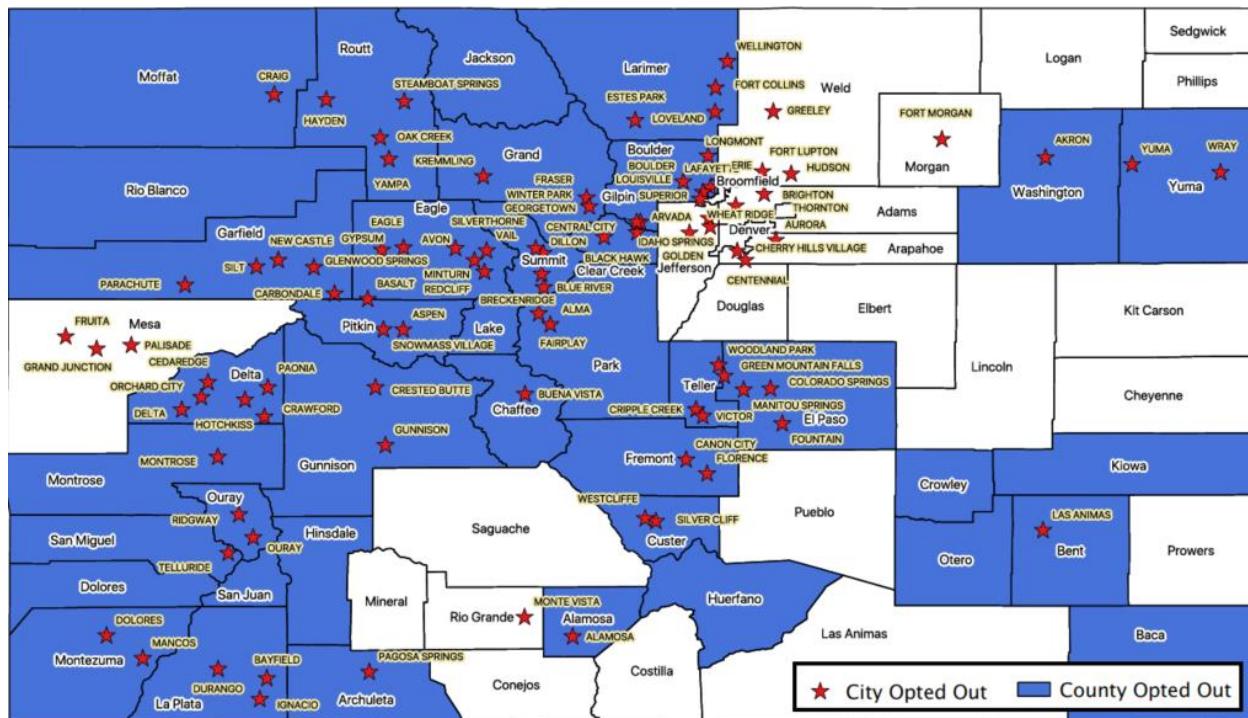
Local Governments

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. 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 2 below shows the 40 Colorado counties and 91 municipalities that have authorized their local government to provide telecommunications services to date, although not all of these authorized local governments actually offer those services.

Figure 2
Local Governments Authorized to Provide Telecommunications Services as of November 16, 2018



Source: Colorado Counties, Inc. and the Colorado Municipal League.

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://www.colorado.gov/pacific/dora/federal-broadband-resources>.

Recent Legislation

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

House Bill 18-1099. This bill requires the Broadband Deployment Board to include in its criteria for first right of refusal that the incumbent prove that its speed and cost is equal to or less than the applicant's, specifically that the incumbent:

- demonstrate downstream and upstream speeds equal to or faster than those indicated in the applicant's proposed project; and
- provide the service at a cost per area household that is equal to or less than the applicant's.

Senate Bill 17-306. This bill requires that the PUC determine how much funding is available for broadband deployment grants and administration, based on a determination of how much is no longer required to support universal basic telephone services due to the existence of "effective competition for basic service." It also changes the funds utilized by the Broadband Deployment Board for grant awards and program administration.

House Bill 17-1174. This bill permits a rural county with a population of fewer than 60,000 residents to establish a local improvement district in an unserved area in order to contract with a telecommunications service provider or an advanced service provider to fund the construction of an advanced service improvement.

House Bill 17-1193. This bill made changes to the permitting process and use of a right-of-way for telecommunications companies installing small cell facilities.

House Bill 16-1184. This bill required that HCSM funds allocated to the Broadband Fund be transferred to the fund between July 1 and August 31 of each year, and specified that all money in the fund be continuously appropriated to the Broadband Deployment Board.

House Bill 14-1327. This bill set statewide policy concerning the deployment of broadband technology, including creating a rebate of state sales and use taxes paid on broadband equipment installed in target areas of the state, and clarifying permitting and installation of broadband facilities and certain wireless service facilities.

House Bill 14-1328. This bill created the Broadband Deployment Board and grant program for broadband development in unserved areas of the state. Members of the board are appointed by the Governor and legislative leadership, and include representatives from the PUC, the Office of Economic Development and International Trade, DOLA, OIT, local governments, the broadband industry, and members of the public from different geographic areas, including two unserved areas. Funding is provided through transfers from the HCSM by the PUC.