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**Department of
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Executive Director's Office

July 7, 2019

Senate Agriculture, Natural Resources, and Energy Committee
Senate Business Labor and Technology Committee
House Transportation and Energy Committee
House Business Affairs and Labor Committee
State Capitol Building
Denver, Colorado 80203

Dear Committee Members:

The attached report by the Broadband Deployment Board is hereby submitted in accordance with section 40-15-509.5 (9) C.R.S.

If Committee Members have questions or would like additional information, please contact me at jordan.beezley@state.co.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jordan Beezley'.

Jordan Beezley
Broadband Deployment Director

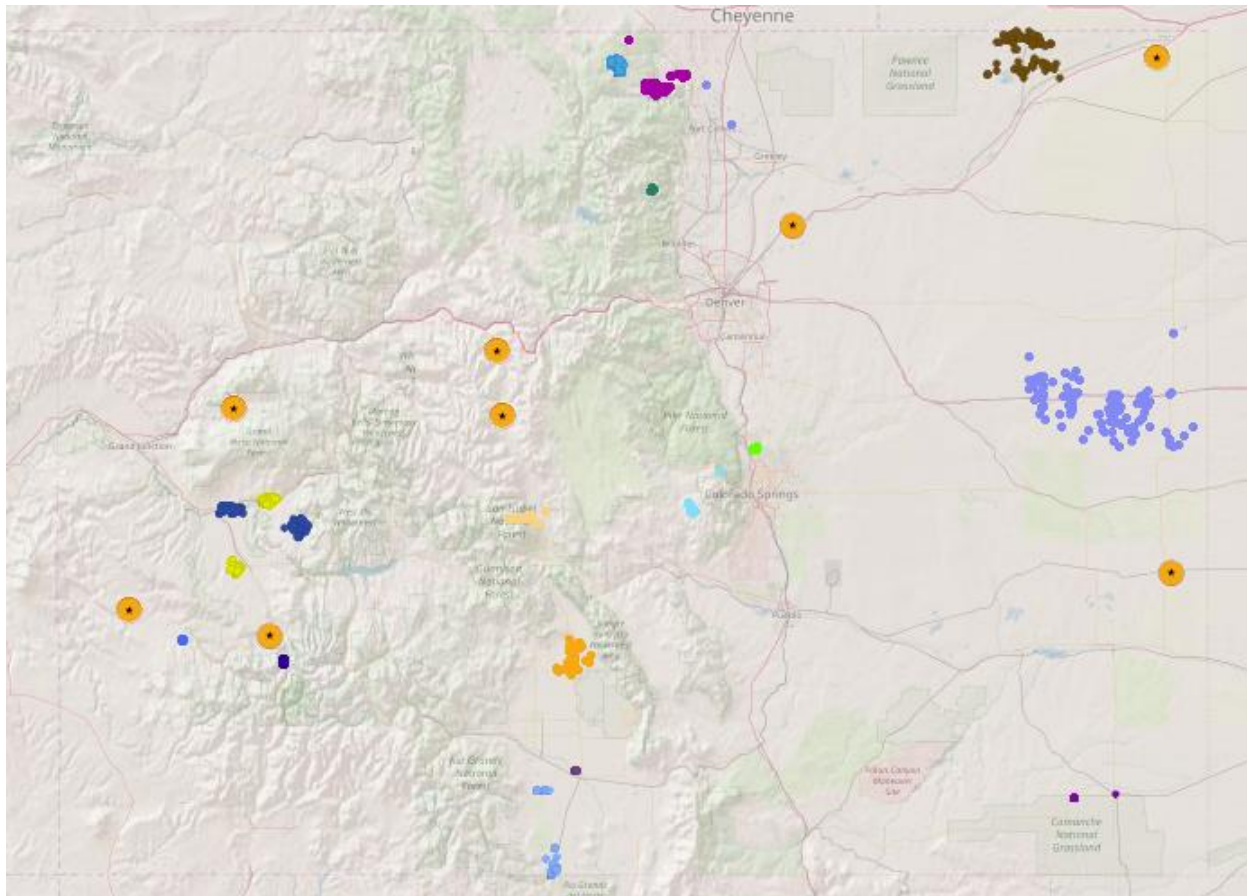




Annual Report of the
Broadband Fund and Broadband Deployment Board
to the General Assembly
July 1, 2019

Pursuant to section 40-15-509.5 (9) C.R.S. the Broadband Deployment Board (Board) is required to report annually on the projects supported by the Broadband Fund including the number of projects; the location of each project; the amount of funding received for each project; and a description of each project.

The Broadband Deployment Board awarded \$19,641,826 in grants from the Broadband Fund to 29 rural broadband infrastructure deployment projects. When complete the projects will provide broadband access to over 17,000 households.



Broadband Fund Grant Project Locations



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Broadband Fund Grants

16-0083	Nucla-Naturita Telephone Company			
	Gobblers Knob Upgrade			
Budget	Total Project Cost	\$57,779	Funds Awarded	\$43,334
Project				
Status	Complete			
Project Summary	The project is a microwave enhancement of the grantee's Gobblers Knob site located approximately 6 miles west of Nucla, to the San Miguel Basin area, via the grantee's microwave site at Pony Draw. The enhancement will be accomplished with a 2 hop microwave capable of 700 Mbps. The microwave will connect to an Adtran TA5000 DSL shelf supplying the 48 connected households with broadband internet access.			
16-0084	NE Colorado Cellular, Inc. dba Viaero Wireless			
	Sheridan Lake, Towner and Brandon Project			
Budget	Total Project Cost	\$634,799	Funds Awarded	\$395,452
Project				
Status	Complete			
Project Summary	The grantee will construct two 195 foot towers designated as Sheridan Lake North, located approximately 9.52 miles Northwest of Sheridan Lake and Sheridan Lake South, located approximately 10.4 miles South of the Sheridan Lake. 3.65 GHz TDD base stations and associated antenna and transmission lines will be installed on each tower of the new towers and on each the existing Towner and Sheridan operated by the grantee. Microwave radios and associated antenna and transmission lines will be installed on each of the new towers.			
16-0085	Chaffee County Telecom LLC, dba Colorado Central Telecom			
	Twin Lakes and Southern Lake County Project			
Budget	Total Project Cost	\$384,452	Funds Awarded	\$288,338
Project				
Status	Complete			
Project Summary	The project requires the construction of two new tower sites: One at the Granite heliport and another at Sugarloaf Mountain near Turquoise Lake. Colorado Central Telecom will incorporate both 4G LTE and Wi-Fi 802.11ac MIMO in its last-mile fixed wireless infrastructure. Grantee's last-mile microwave links will be backhauled through the Granite heliport site. From there, the Granite site will be backhauled to Colorado Central Telecom's Methodist Mountain tower using a licensed Trango GigaPlus 2+0 microwave radio. Backhaul for the Methodist tower can be routed to either Center, Salida or Nathrop via a licensed microwave Trango GigaPlus 2+0 radio.			



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16-0086	CenturyLink Inc.				
	Hudson and Keenesburg Project				
Budget	Total Project Cost	\$299,200	Funds Awarded	\$299,156	
Project					
Status	Complete				
Project	The grantee will upgrade (5) Digital Subscriber Line Access Multiplexer's (DSLAM) located				
Summary	at (1) 450 5th Ave Hudson, (2) 605 Ash Hudson, (3) 374 Woodard Ave Keenesburg, (4) 7799 Weld County Rd 59, Keenesburg, (5) 80 S Main Keenesburg. Grantee will install fiber to the DSLAM's located at (1) 450 5th Ave Hudson, (2) 605 Ash Hudson, (3) 374 Woodard Ave Keenesburg, (4) 7799 Weld County Rd 59, Keenesburg, (5) 80 S Main Keenesburg. Grantee will test all equipment and ensure Broadband internet access with at least 25 Mbps download and 3 Mbps upload and sufficient latency to allow for real-time communications to the last mile connections identified in the Right of First Refusal Written Plan.				

16-0087	PC Telcorp, Inc., dba PC Telcom				
	Ovid, Sedgwick and Julesburg Project				
Budget	Total Project Cost	\$85,232	Funds Awarded	\$55,400	
Project					
Status	Complete				
Project	Grantee will replace existing Alvarion wireless access points and antennas with Telrad LTE wireless access points and antennas on the "Sedgwick Tower" and "Julesburg Tower."				
Summary	Work will include running new cables, installing equipment, adjusting equipment and testing equipment to ensure service of at least 25 Mbps downstream and 3 Mbps upstream speeds with latency that allows for real-time communications.				

16-0088	Optimus Communications LLC				
	Collbran Colorado and Eastern Plateau Valley Project				
Budget	Total Project Cost	\$150,000	Funds Awarded	\$112,500	
Project					
Status	Complete				



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Project Summary Grantee will purchase and install wireless microwave backhaul equipment at the Optimus Communications LLC main office in Grand Junction. This equipment will connect to new microwave backhaul equipment purchased and installed by grantee on the existing Palisade Point tower on the Grand Mesa. The Palisade Point equipment will connect to the Cable Head End building in Collbran CO. Grantee will use Cisco routing equipment and DOCSIS 3.0 system for internet distribution over the cable infrastructure. Grantee will purchase, build and install a solar powered communications site with a microwave link from Palisade Point to the Vega tower. Grantee will purchase and install three 120 degree 5.8Ghz antenna and three 5.8 Ghz radios at the Vega tower. Grantee will purchase and install an additional microwave link from the Cable Head End to the Plateau City tower. Grantee will purchase and install four 90 degree 5.8Ghz antenna and 12 AC 5.8 Ghz radios at the Cable Head End tower and the Plateau City tower.

16-0089	CenturyLink Inc.			
	Ridgeway			
Budget Project Status Project Summary	Total Project Cost	\$841,200	Funds Awarded	\$841,200
	Complete			
	The grantee will upgrade eight Digital Subscriber Line Access Multiplexer's (DSLAM) located at: (1) 97 Chipeta Dr., (2) 1000 Clinton, (3) 265 N Lena, (4) 501 W Otto, (5) 109 Village SQ, (6) 222 Vista DR (7) 125 S Lena ST (8) 309 Sherman.			
	Grantee will install fiber to the DSLAM's located at (1) 97 Chipeta Dr., (2) 1000 Clinton, (3) 265 N Lena, (4) 501 W Otto, (5) 109 Village SQ, (6) 222 Vista DR (7) 125 S Lena ST (8) 309 Sherman.			
	Grantee will test all equipment and ensure Broadband internet access with at least 25 Mbps download and 3 Mbps upload and sufficient latency to allow for real-time communications to the last mile connections identified in the Right of First Refusal Written Plan. At least 750 of the locations served must have availability of speeds of 100/10, at least 100 of the locations served must have availability of speeds of 40/20, and at least 140 of the locations served must have availability of speeds of 40/5.			

16-0090	Futurum Communications Corporation, dba Forethought.net, Brainstorm Internet			
	Red Cliff			
Budget Project Status	Total Project Cost	\$93,471	Funds Awarded	\$70,103
	Complete			



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Project Summary From the CenturyLink Fiber Demarc, grantee will install fiber through two Ski Cooper buildings, trenching from edge of Ski Cooper building to Lift Hut and through existing conduit from Hut. At the Lift House grantee will construct a mount, engineered by manufacturer to the Lift House infrastructure. On this structure grantee will install a 4ft. Dish pointing to Red Cliff. At Red Cliff a reciprocal licensed radio will be installed on 80ft tower being built by the Town of Red Cliff. Grantee will deploy LTE Fixed wireless radio equipment from the Red Cliff tower. LTE fixed wireless will deliver 25MB/5MB and potentially higher speeds as standard evolves. Grantee will purchase, install and test all equipment ensuring broadband internet service to the Town of Red Cliff of at least 25 Mbps download and 3 Mbps upload with latency sufficient to enable real time communications.

17-0001	Delta Montrose Electric Association		
	Paonia, Olathe and Happy Canyon in Delta and Montrose Counties		
			\$2,646,19
Budget Project	Total Project Cost	\$6,615,480	Funds Awarded 2
Status	Project Underway		
Project Summary	The project will build out of three service areas: Northwest Paonia, Olathe and the Happy Canyon area outside of the City of Montrose. The project will provide fiber to the premise broadband service to 1,731 residential addresses and 213 business addresses. The project area has a population of 4,159. The applicant provided a list of 40 “community anchor institutions” that would receive service as part of the proposed project. Much of the fiber will be located on existing DMEA utility poles and conduit.		
17-0002	NE Colorado Cellular, Inc. dba Viaero Wireless		
	Arriba, Genoa and rural Lincoln County		
			\$1,038,39
Budget Project	Total Project Cost	\$1,384,529	Funds Awarded 7
Status	Project Underway		
Project Summary	The grantee will construct two new towers and upgrade equipment on three existing towers to provide service in Arriba, Genoa and rural Lincoln County. Last-mile service provided via fixed wireless, fiber to the towers is used for backhaul.		
17-0003	San Luis Valley Rural Electric Cooperative		
	Hermit Lakes, Ptarmigan Meadows, Pearl Lakes and Spring Creek HOA		
Budget Project	Total Project Cost	\$939,298	Funds Awarded \$700,402
Status	Project Underway		



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Project Summary The grantee will provide broadband service over a fiber to the home network utilizing existing electric utility poles in rural Mineral and Hinsdale Counties along CO Highway 149. The project will serve 278 homes and 20 businesses.

17-0004 Inventive Wireless of Nebraska, LLC dba Vistabeam
Jackson County

Budget	Total Project Cost	\$392,313	Funds Awarded	\$260,313
Project Status	Project Underway			
Project Summary	The grantee will construct eight new towers and use three existing towers to provide broadband service over the 5ghz unlicensed spectrum. The project would provide service to 639 residential addresses and 82 business addresses in Jackson County.			

17-0005 Brainstorm Internet Inc.
South San Juan County - Cascade Village

Budget	Total Project Cost	\$455,000	Funds Awarded	\$268,500
Project Status	Project Underway			
Project Summary	The grantee will extended fiber from the Purgatory Ski Area approximately 4 miles to Cascade Village, a development with 199 residential addresses and the Benchmark Events and Cultural Center. Last-mile service would be provided using fiber with 1 Gbs symmetrical service.			

17-0008 Jade Communications LLC
Conejos, Paisaje, Mogote, Fox Creek, Aspen Springs, Bear Creek, Sheep Creek, Conejos Valley, Ponderosa, & Hocra

Budget	Total Project Cost	\$3,663,756	Funds Awarded	\$2,372,817
Project Status	Project Underway			
Project Summary	The grantee will construct a fiber to the premise project in Conejos County spanning approximately 20 miles along CO17 west of US 285 and Antonito. The project would provide service to 829 residential and 34 businesses and community anchor institutions addresses.			

17-0012 SECOM Inc.
Las Animas, Springfield and Holly

Budget	Total Project Cost	\$1,591,807	Funds Awarded	\$1,193,85
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Project
 Status Project Underway
 Project Summary The project would provide service up to 200/200Mbps via a fiber to the premise network to Las Animas, Springfield and Holly.

18-0001 Jade Communications LLC
 San Antonio

Budget	Total Project Cost	\$676,126	Funds Awarded	\$507,094
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Project
 Status Project Underway
 Project Summary The project will provide fiber connections to 93 addresses.

18-0002 Jade Communications LLC
 Riverdance Ranch

Budget	Total Project Cost	\$153,996	Funds Awarded	\$115,497
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Project
 Status Project Underway
 Project Summary The project will provide fiber connections to 14 addresses in the Riverdance Ranch subdivision north of Alamosa.

18-0003 Delta Montrose Electric Association
 Northeast Delta and Southeast Crawford

Budget	Total Project Cost	\$3,363,897	Funds Awarded	\$2,334,988
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Project
 Status Project Underway
 Project Summary The project would provide fiber to the premise internet service in Southeast Crawford and Northeast Delta.

18-0004 Delta Montrose Electric Association
 West Spring Creek

Budget	Total Project Cost	\$1,519,970	Funds Awarded	\$759,985
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Project
 Status Project Underway
 Project Summary The project would provide fiber to the premise internet service in West Spring Creek.



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18-0005	Global Broadband Corporation			
	Red Feather Lakes and Crystal Lakes			
Budget	Total Project Cost	\$756,042	Funds Awarded	\$567,031
Project				
Status	Project Underway			
Project	The project will provide wireless service to 797 addresses in the Red Feather Lakes area.			
Summary	The project will require the construction of new towers.			

18-0006	SECOM Inc.			
	Pritchett			
Budget	Total Project Cost	\$237,845	Funds Awarded	\$178,384
Project				
Status	Project Underway			
Project	The project will provide fiber to the premise service to 125 addresses in Pritchett.			
Summary				

18-0014	Viaero			
	Peetz			
Budget	Total Project Cost	\$880,386	Funds Awarded	\$660,289
Project				
Status	Project Underway			
Project	The project will provide service to 105 addresses in the Stoneham/Peetz area of Logan			
Summary	County.			

19-0005	xb7-BEMA Broadband			
	Big Elk Meadows in Larimer County			
Budget	Total Project Cost	\$97,769	Funds Awarded	\$64,627
Project				
Status	Project Underway			
Project	The Project will provide access to broadband services by building last mile infrastructure			
Summary	for the community of Big Elks in Larimer County. Big Elks in Larimer County is currently unserved/underserved due to its remote and difficult to reach location, and this project intends to serve 170 residences and approx. 500 residents.			



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19-0009 StratusIQ

Sun Hills in El Paso County

Budget	Total Project Cost	\$690,836	Funds Awarded	\$518,127
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Project

Status Under Appeal

Project Summary The proposed project will connect 106 addresses, or 400-500 people to access FTTH Infrastructure using (GPON) technology to deliver plans with up to 1Gbps download speeds and up to 250Mbps upload speeds for every home. StratusIQ is also expanding the project to other underserved homes even if they are not included the Sun Hills Development, located in El Paso County.

19-0011 Global Broadband Coporation

Glacier View Meadows in Larimer County

Budget	Total Project Cost	\$896,426	Funds Awarded	\$672,319
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Project

Status Project Underway

Project Summary Global Broadband is targeting 376 unique residential and small business and home based business addresses in the Glacier View Meadows subdivision within Larimer County, Colorado and the surrounding area. The project will provide access to a broadband network to the Glacier View Meadows community through the installation of a new wireless tower. Global Broadband will also install the necessary power, metering, backup systems, etc. to support the tower location and facilitate service. Global Broadband will also either provide backhaul Internet access through an aerial fiber link or the middle mile backhaul link will be provided by microwave from the tower located in Red Feather Lakes.

19-0013 Colorado Central Telecom

Chalk Creek Canyon

Budget	Total Project Cost	\$1,620,961	Funds Awarded	\$1,215,721
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Project

Status Project Underway

Project Summary The project will provide broadband via fixed wireless to 50 households and via FTTH to an additional 221 households in the Chalk Creek Canyon.

19-0018 Futurum Communications Corporation

Cripple Creek

Budget	Total Project Cost	\$1,102,301	Funds Awarded	\$825,904
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Project

Status Project Underway



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Project Summary This project proposes to build out new fiber (GPON) and middle mile services through Gigabit broadband to approximately 773 households in Cripple Creek in Teller County.

19-0019 Brainstorm Internet

Ouray

Budget Project	Total Project Cost	\$1,025,302	Funds Awarded	\$757,250
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Status Project Underway

Project Summary The Project consists of the creation of a fiber-to-the-home network within Ouray County to provide access to all homes and businesses in Ouray, CO access to a modern, symmetric gigabit fiber on the home broadband network.

19-0020 Brainstorm Internet

Norwood

Budget Project	Total Project Cost	\$671,219	Funds Awarded	\$503,414
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Status Project Underway

Project Summary Brainstorm Internet worked with the Town of Norwood to utilize the open trench at the expense of Brainstorm Internet. If it were not for the water project, Brainstorm Internet could not fund a fiber to the home project. The fiber network will provide 1 Gigabit speeds to each end user in addition to VoIP services over the fiber network.