



Office of Broadband Development

2023 Annual Report

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Minnesota Department of Employment and Economic Development (DEED)

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Introduction and 2023 Highlights

The Office of Broadband Development (Office or OBD) is located in the Minnesota Department of Employment and Economic Development (DEED). The Office was created by statute in 2013 and just completed its tenth year of work on its mission to improve access to broadband service that meets the state's speed goals, serving the needs of anchor institutions, and expanding the skills and knowledge needed to use these services.

Responsibilities of the OBD are outlined in statute at Minn. Stat. § [116J.39](#). Border-to-Border high speed internet access is the goal throughout Minnesota. The Broadband Office connects communities, policy makers, providers, regional support organizations, and state and federal programs with each other and the resources they need to improve broadband access and use in Minnesota.

Residents and businesses continue to rely increasingly on broadband connectivity to access telehealth services, for remote learning, to telework, to engage in commerce, to participate in government, and to remain connected to family and friends. Minnesota employers are looking for workers with digital skills. Many Minnesotans do not have equitable opportunity to access digital needs when it comes to internet connectivity, devices, and digital skills. Congress responded to the post-pandemic need for increased solutions in the form of the Infrastructure Investment and Jobs Act, resulting in an anticipated influx of funding to the state. To ensure that Minnesota has the additional staff necessary to develop the Initial Proposal and Final Proposal, administer a large grant program, provide technical support to communities and providers, and continue the state mapping program in combination with the new Federal Communications Commission (FCC) maps and the National Broadband Availability Map (NBAM) maps, OBD has created five additional staff positions, growing our staff from seven to twelve, to fulfill the broadband needs of all Minnesotans.

2023 milestones for the Office included:

- The National Telecommunications and Information Administration (NTIA) announced Minnesota's BEAD allocation to be \$651,839,368.00
- MN Legislature approved an additional \$50M each year - FY24 and FY25 for broadband infrastructure
- MN Legislature made the Lower Population Density Program permanent (was a pilot program in 2022)
- MN Legislature increased the cap on individual grant award amounts for traditional Border-to-Border to \$10M
- *Connecting One Minnesota: Internet for All* Kick-off event in January
- Attended 14 regional Minnesota Association of Townships Trainings
- Held 17 regional and 2 virtual Digital Opportunity Listening Sessions
- Held 8 Tribal Consultations
- Submitted Five-year Action Plan to NTIA
- Submitted a Digital Opportunity Plan to NTIA
- Grant Round 9 Webinar for Border-to-Border and Low Density Broadband Development grant programs
- Submitted Broadband Equity, Access, and Deployment (BEAD) Initial Proposal Volume 1 and 2 to NTIA
- Certified 2 Telecommuter Forward! Communities
- Updated broadband availability maps in October

- Provided broadband availability analysis to over 400 constituents (113 emails and 360 phone calls)
- Participated in state and national meetings and conferences to continue to learn about and/or promote the broadband resources available from state and federal sources
- Met with local groups to provide technical assistance on broadband issues, including the state grant program
- Engaged Minnesota Congressional staff and federal agencies in work to maximize impacts of federal broadband programs in Minnesota
- Provided administrative support to the Governor’s Task Force on Broadband
- Provided technical and programmatic information to policy makers on broadband discussions throughout the 2023 legislative session
- Updated the broadband availability by township and by county maps to continue to engage township supervisors and county commissioners in discussion of how to improve broadband availability to their residents
- Updated the broadband availability by school district map to continue to document the homework gap in Minnesota

Table 1: Current Activities that the Broadband Program/Office Conducts

Activity Name	Description	Intended Outcome(s)
Border-to-Border Broadband Infrastructure Grant Program (established in 2014 law) https://mn.gov/deed/programs-services/broadband/grant-program/	Grant program to provide financial incentive to applicants to deploy broadband service in unserved and underserved areas. Grant program can pay (reimbursement basis) for up to 50% of eligible expenditures with a \$10 million cap per award (increased from \$5 million cap in 2023 legislative session). See 116J.395	Increase the number of homes, businesses, farms, and community anchor institutions with broadband access at or above speeds of at least 100Mbps download and 20Mbps upload (100Mbps symmetrical if funded by ARPA CPF)
Lower Population Density Broadband Infrastructure Grant Program (established in 2022 law) https://mn.gov/deed/programs-services/broadband/grant-program/	Grant program to provide financial incentive to applicants to deploy broadband service in unserved and underserved areas. Grant program can pay (reimbursement basis) for up to 75% of eligible expenditures	Increase the number of homes, businesses, farms, and community anchor institutions with broadband access at or above speeds of at least 100Mbps download and 20Mbps upload (100Mbps symmetrical if funded by ARPA CPF)

	with a \$10 million cap per award	
Line Extension Connection Grant Program (established in 2022 law) https://mn.gov/deed/programs-services/broadband/extension/	Grant program to award grants to eligible bidders (ISPs) to extend their existing broadband infrastructure to unserved locations identified by homes and businesses registering with OBD. See 116J.3951	Increase the number of homes, businesses, farms, and community anchor institutions with broadband access at or above speeds of at least 100Mbps download and 20Mbps upload (100Mbps symmetrical if funded by ARPA CPF). Incent providers to edge out their service offering to adjacent locations and/or address situations where an excess construction charge to connect to broadband serves as a barrier to adoption.
Broadband Deployment Data and Maps https://mn.gov/deed/programs-services/broadband/maps/	Minnesota has had a state program to map broadband availability since 2008. With our mapping vendor partner, Connected Nation, data is collected from providers, verified by individuals and communities and field validation, and mapped.	Provides the initial basis for determining eligibility for grant programs; enables OBD to respond to consumer inquiries; what gets measured gets done.
Telecommuter Forward (established in 2019 law) https://mn.gov/deed/programs-services/broadband/telecommuter-forward/	Political subdivisions may apply for certification as a Telecommuter Forward community.	Enables a community to be publicly recognized as a place that promotes telecommuting opportunities and options.
Governor’s Task Force on Broadband https://mn.gov/deed/programs-services/broadband/task-force/	OBD provides administrative, technical, and staff support to the Task Force.	The Task Force provides policy advice to the Governor and Legislature.

<p>K12 Connect Forward</p> <p>https://mn.gov/deed/programs-services/broadband/connect-forward/</p>	<p>OBD provides administrative support to the group.</p>	<p>OBD Initially formed work group and entered a formal Scope of Work with EducationSuperHighway (ESH) in 2015 to measure and achieve school connectivity goals. Now the K12 Connect Forward work group provides a forum to share information and advise the K-12 representative on the Task Force.</p>
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Border-to-Border Broadband Development Grant Program

FY24/FY25 Grant Program Update

The Border-to-Border Broadband Development Grant Program funds the expansion of broadband service to areas of Minnesota that are unserved or underserved. The Border-to-Border Broadband Development Grant Program was created in Minn. Stat. [§116J.395](#) in 2014. The legislative focus of this grant program is to provide financial resources that help make the business case for new and existing providers to invest in building broadband infrastructure into unserved and underserved areas of the state. The Border-to-Border Broadband Grant Program has been funded with state general fund revenues and a combination of both state general fund revenues and federal American Rescue Plan Act (ARPA) Sec. 604 Capital Projects Funds (CPF).

In the 2022 legislative session, the legislature allocated \$25 million in State General Revenue Funds to the Border-to-Border grant program for FY24. That funding, along with \$42 million in Capital Projects Fund funding was awarded in late June 2023.

The 2023 legislative session appropriated an additional \$50 million for each of FY 2024 and FY 2025. The 2023 MN Legislature also increased the cap on grant award amounts for traditional Border-to-Border to \$10M. Applications for the FY 2024 State General Revenue Funds of \$50 million were received on December 7, 2023, as the ninth grant round with applications currently under review. Plans for distribution of the FY 2025 funding are still being developed. Subsequent grant rounds are anticipated to be funded with \$651,839,368 in federal Broadband Equity, Access, and Deployment Funds (BEAD).

2023 Grant Round 9 (FY 2024)

With \$30 million available for Border-to-Border grants and \$20 million for the Lower Population Density (Low Density) grants, DEED opened the application window on October 9, 2023. Sixty-nine (69) applications for the 2023 Round 9 Border-to-Border and Low Density Broadband Development grant program were received by the December 7th deadline. For this grant round, the Office of Broadband Development used DEED's new Grants Management System for applicants. The Office of Broadband Development initiated the challenge process

required by Minnesota law (Minn. Stat. § [116J.395](#) subd. 5a) concurrent with its review of the applications. A list of the applications filed and instructions on how to file a challenge, if necessary, are available on OBD’s website and under the "2023 Application Process" tab. A downloadable GIS layer of the 2023 Round 9 Grant application areas is also available on OBD’s interactive broadband map. Providers wishing to challenge an application had to complete the 2023 Challenge Form and submit via email to deed.broadband@state.mn.us by 4:00 p.m. Thursday, January 11, 2024. Grantees selected in Round 9 will be announced and posted on OBD’s website by late winter 2024.

FY25 Grant Program Information

Plans for distribution of the FY 2025 funding are still being developed. The latest information available on the Border-to-Border Broadband grant program is posted on the OBD website at: [Broadband Grant Program / Minnesota Department of Employment and Economic Development \(mn.gov\)](#)

For reference, the table below summarizes the grant rounds for the Border-to-Border Broadband Infrastructure Grant program, the first six rounds were funded with state general fund appropriations. The seventh and eighth rounds were funded with a combination of both state general fund revenues and federal American Rescue Plan Act (ARPA) Sec. 604 Capital Project Funds (CPF). The ninth round was funded with state general fund appropriations.

Table 2: Border-to-Border Broadband Infrastructure Grant Program eight-year summary

Year	Applications Received	Applications Awarded	% of Applications Funded	Amount Requested	Amount Awarded	Number of Locations Served
2014	40	16	40%	\$44,215,644	\$18,670,337	6,333
2015	44	15	34%	\$29,063,436	\$11,008,366	4,098
2016	57	40	70%	\$54,228,825	\$29,040,896	16,708
2017	70	39	56%	\$50,348,055	\$26,475,556	12,202
2019*	80	30	37%	\$67,809,312	\$23,270,933	10,938
2020	64	39	61%	\$42,038,097	\$20,645,425	6,922
2022*	130	61	47%	\$189,853,780	\$99,592,711	33,091

2023	60	21	35%	\$104,500,000	\$36,907,763	10,464
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*There was no grant round in 2018 as no appropriation was approved for FY19 and there was no grant round in 2021 due to no appropriation and a delay in federal approval of Capital Projects Funds Program Plans.

Telecommuter Forward! Community Certification Program

The Office launched the [Telecommuter Forward! Community Certification Program](#) in December 2019 and certified 29 communities in the initial year. In 2021, an additional 12 communities were certified. In 2022 six more communities were certified. In 2023 two communities were certified. Telecommuter Forward! certification recognizes communities that meet criteria for promoting telecommuting opportunities in partnership with broadband providers, economic development professionals, and OBD. Program guidance is provided by Minn. Stat. § [116J.9923](#).

Lower Population Density Grant Program

The 2023 MN Legislature made the Lower Population Density Program permanent. It was originally created as a new pilot program in the 2022 legislative session, within the framework of the traditional Border-to-Border Broadband Grant Program. The purpose for the program is to address those areas of the state where a 50 percent funding match is not adequate to make a business case for the extension of broadband facilities. Grants awarded under this section must follow requirements of the Border-to-Border program but may fund up to 75 percent of the total cost of a project and awards may be up to \$10 million per project (versus the 50 percent in the traditional Border-to-Border grant program). OBD submitted a report December 28, 2023 to the state legislature. Further detail is included in OBD's [report](#) filed at the end of 2023 on the low density program. A brief summary of the program's first grant awards is listed below.

Table 3: Lower Population Density Grant Funding Summary

Year	Applications Received	Applications Awarded	% of Applications Funded	Amount Requested	Amount Awarded	Number of Locations Served
2023	28	9	32%	\$80,700,000	\$29,900,000	2,672

In addition, 44 applications were submitted for the Low Density program in OBD's Grant Round 9, by the December 7, 2023, application deadline. Review of those applications is ongoing, and not complete at the time of this report.

Line Extension Program

In the 2022 Legislative Session, the Office of Broadband Development (OBD) was directed to create a new program, the Broadband Line Extension Connection Program. The purpose of the program is to award grants for the extension of existing broadband infrastructure to unserved locations. An unserved location is a location that does not have a wired broadband service of at least 25Mbps download and 3 Mbps upload. The legislature directed that up to \$15 million of Minnesota’s ARPA CPF funding could be used for this program.

Any household or business can apply to the Line Extension Connection Program if it does not have wireline internet service of at least 25 Mbps Download and 3 Mbps Upload. For more information on the Program and to learn how to apply for the next round of funding, visit the [Broadband Line Extension Connection website](#).

The Office of Broadband Development announced the first round of Line Extension Connection Program awards on a rolling basis beginning October 6, 2023, and ending November 9, 2023. The first round of the program awarded \$4,395,257.45 to expand wired broadband delivering at least 100 Mbps download and 100 Mbps upload to 843 locations across 32 counties. Of these locations, 779 are residences and 64 are businesses. Internet providers carrying out the projects matched \$2,225,747.14 for a total investment of \$6,621,004.59.

As of December 4, 2023, the Line Extension Connection program has 3,152 total applications (2,928 households, 224 businesses). View the map that shows the locations of the Line Extension Applications [here](#).

Round 2 Timeline

Location Addresses Posted for Review - Nov. 14, 2023
Challenges Due - Dec. 1, 2023
Addresses Posted for Bid - Dec. 11, 2023
Bids Due - Feb. 9, 2024
Selections Announced - March 2024

All dates are subject to change. The Line Extension Connection Program online portal for residents and businesses to submit their address locations for bid consideration is ongoing.

Minnesota Broadband Mapping Program

Minnesota has been independently mapping broadband access and speeds across Minnesota since 2009. This work continues to be performed through a contract with Connected Nation, a non-profit organization that has considerable experience working with Minnesota broadband providers. The requirement to conduct these mapping activities was codified into law (Minn. Stat. § [116J.397](#)). It should be noted that funding for mapping activities comes from the administrative allowance of the Border-to-Border Grant program per Minn. Stat. § [116J.396](#) at subd. 2(3).

The state broadband speed goals are articulated at Minn. Stat. § [237.012](#). They call for achieving Border-to-Border access by all homes and businesses in the state to a service that offers speeds of at least 25 Mbps download by 3 Mbps upload by the year 2022. A second goal, to be achieved by the year 2026, seeks to have

broadband service offering 100 Mbps download and 20 Mbps upload from at least one provider available to all homes and businesses.

The most recent round of data collection shows that progress is being made toward these goals as measured from 2016 when the goals were adopted. Note that the most recent data shows a decline in availability at the 25 Mbps download and 3 Mbps upload speed and that is largely due to a decision to count habitable houses instead of occupied houses as was done in prior years.

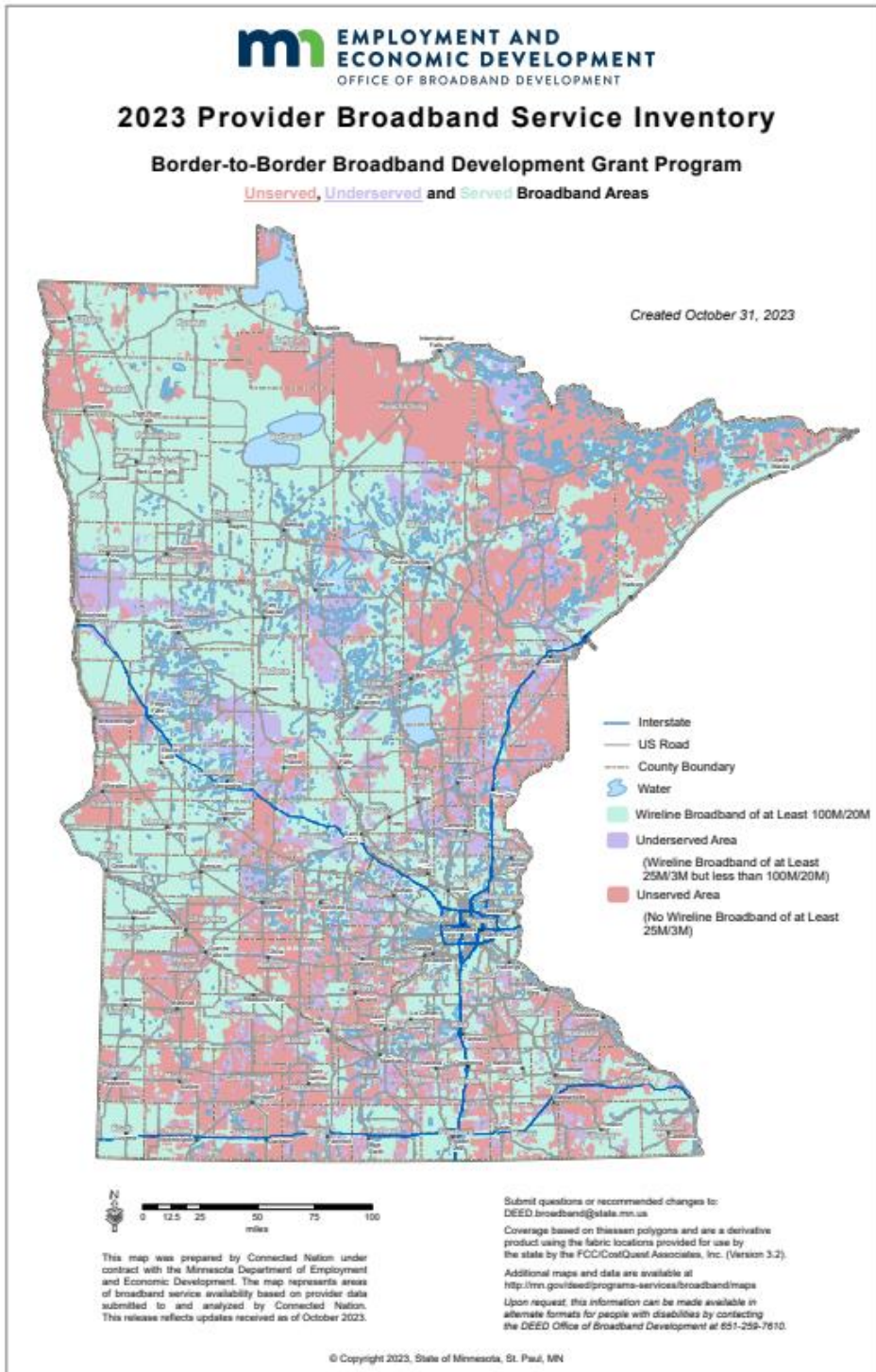
Table 4: Historic Overview of Broadband Availability, Statewide and Non-metro at 2022 and 2026 Broadband Speed Goals:

	2016	2017	2018	2019	2020	2021	2022	2023
Statewide 25/3								
% of HH:	87.53% covered	88.11% covered	91.13% covered	92.79% covered	92.47% covered	91.79% covered	92.03% covered	91.56% covered
# of HH without:	260,000 HH w/o	248,000 HH w/o	185,000 HH w/o	150,000 HH w/o	157,000 HH w/o	171,000 HH w/o	198,000 HH w/o	162,000 HH w/o
Non-metro 25/3								
% of HH:	72.03% covered	73.45% covered	80.07% covered	83.92% covered	83.10% covered	81.99% covered	74.42% covered	78.21% covered
# of HH without:	251,000 HH w/o	238,000 HH w/o	179,000 HH w/o	144,000 HH w/o	152,000 HH w/o	161,000 HH w/o	180,000 HH w/o	154,000 HH w/o
Statewide 100/20								
% of HH:	68.53% covered	70.04% covered	74.11% covered	86.10% covered	87.75% covered	88.52% covered	88.29% covered	88.03% covered
# of HH without:	657,000 HH w/o	625,000 HH w/o	540,000 HH w/o	290,000 HH w/o	256,000 HH w/o	240,000 HH w/o	291,000 HH w/o	229,000 HH w/o
Non-metro 100/20								
% of HH:	49.33% covered	52.88% covered	60.05% covered	68.74% covered	72.53% covered	75.05% covered	62.46% covered	68.87% covered

# of HH	455,000	423,000	358,000	280,000	246,000	224,000	264,000	220,000
without	HH w/o	HH w/o	HH w/o	HH w/o	HH w/o	HH w/o	HH w/o	HH w/o

The data can also be viewed in map form. The below 2023 Broadband Service Inventory map depicts where broadband services are available at the statutory goal of 25 Mbps download by 3 Mbps upload (25/3) and 100 Mbps download by 20 Mbps upload (100/20). This map is also used for preliminary screening for the Border-to-Border Broadband Grant program. As state-funded grant projects are completed, the results are reflected on this map (for example, projects in Big Stone, Rock, and Swift Counties are large enough areas to be evident on the map).

Figure 1: 2023 Broadband Service Inventory Map

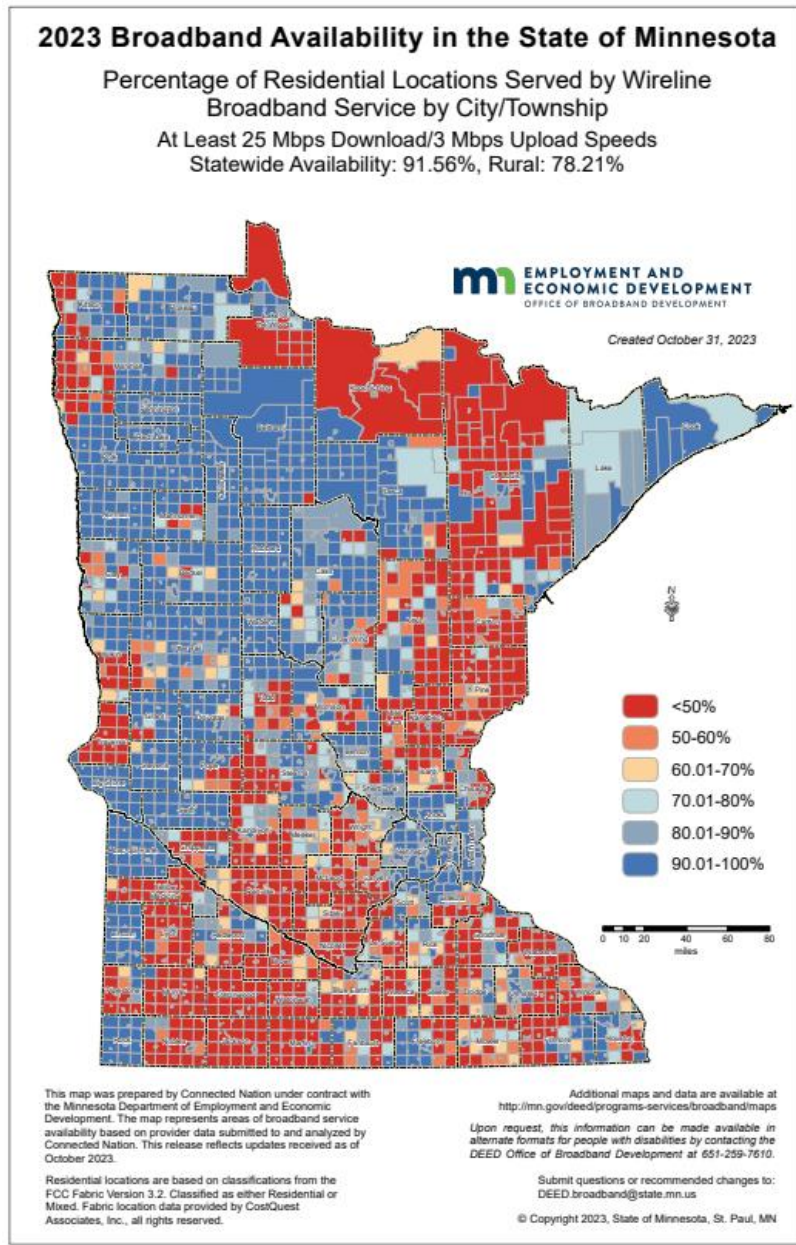


Above map also available on OBD website: [Infrastructure Grants Map](#)

The below township heat maps were initially created in 2016 and have been updated with each subsequent data collection process. This configuration provides a clearer view of where the actual areas of unserved or

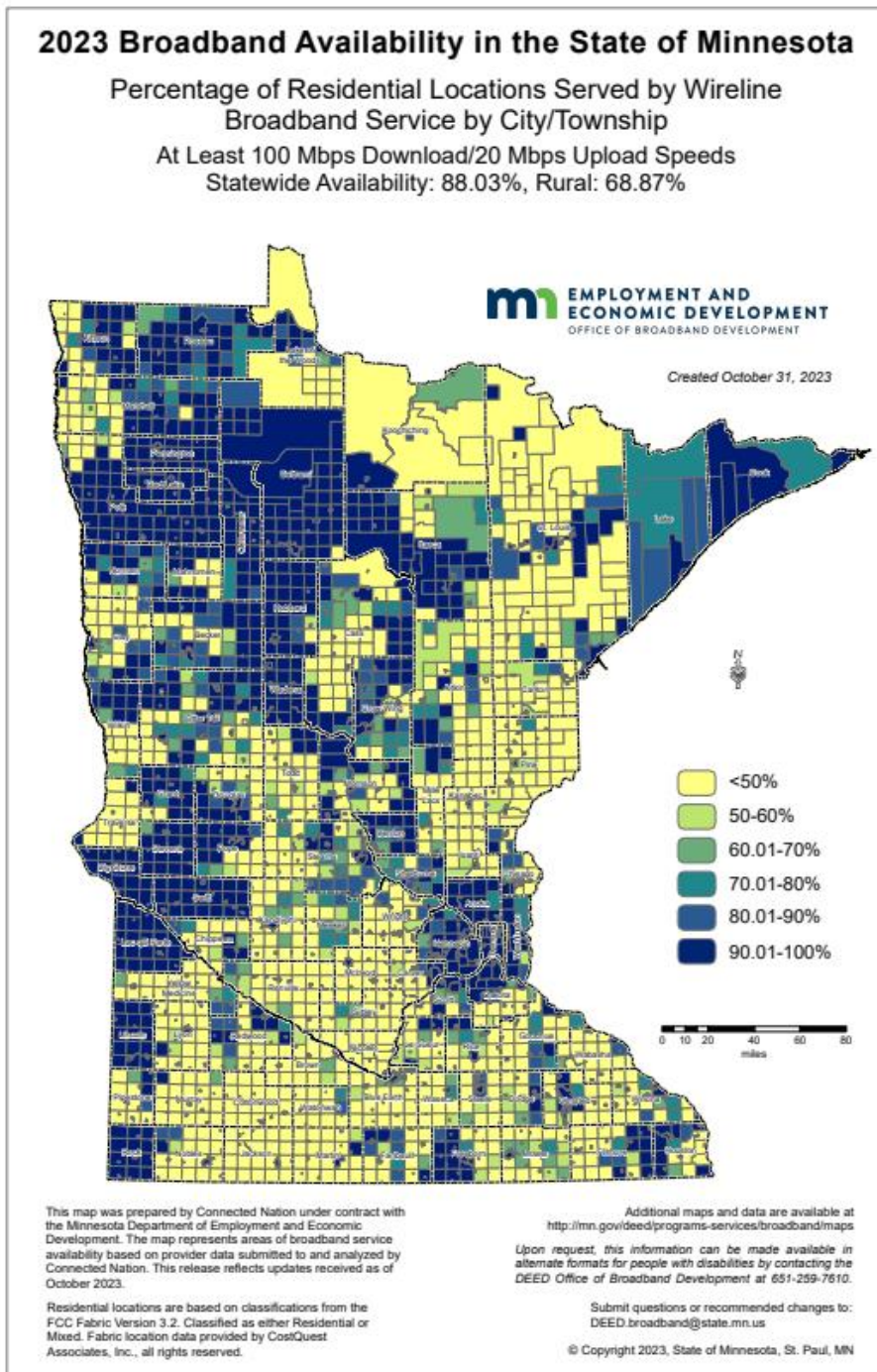
underserved territory are located within each county. The first map shows broadband availability at the 25 Mbps download and 3 Mbps upload (2022 goal) speeds and the second township maps shows availability at 100 Mbps download and 20 Mbps upload (2026 goal) speeds.

Figure 2: Township Heat Map of Percent Households Served at 2022 Broadband Speed Goal



Above map also available on OBD website: [With speeds of at least 25Mbps download and 3Mbps upload - 2023 goal \(Township map\).](#)

Figure 3: 2023 Township Heat Map of Percent Households Served at 2026 Broadband Speed Goal



Above map also available on OBD website: [With speeds of at least 100Mbps download and 20Mbps upload - 2026 goal \(Township map\)](#)

Additional maps and data are available on OBD’s website at [Maps and Data / Minnesota Department of Employment and Economic Development \(mn.gov\)](https://www.mn.gov/Maps-and-Data)

Broadband data was updated on 10/31/23 (layers & statistics exclude mobile and satellite services unless noted). The data is associated with a Q1/Q2 2023 statewide data collection with minor updates received as of October, in addition to available public data at the time. Broadband data is associated with providers who offer residential services (non-business-only providers). Data standardized to Version 3.2 of FCC’s Broadband Serviceable Locations dataset.

BEAD eligibility & DEED Border-to-Border/Low Density program eligibility differ.

As of October 2023, 88.03 percent of households had access to service that meets or exceeds the state’s speed goal for 2026, which is 100 Mbps download by 20 Mbps upload from at least one provider. When looking at just non-metro areas, that number drops to 68.87 percent. While the broadband grant program has largely focused on achieving the statutory speed goals, investments can only be funded under state law if they are scalable to deliver speeds at 100 Mbps download by 100 Mbps upload. The 100 Mbps symmetrical speed requirements are also included in the new federal funding guidelines for the ARPA CPF funding. Funding guidelines and eligible locations for BEAD will be addressed under the state’s Initial Proposal and BEAD Challenge Process. The increasing demand for upload speeds faster than 20 Mbps is also worth assessing since the 100 Mbps download/20 Mbps upload speed goals were first established in state law in 2016. With the pandemic driving more “production” to the home (telework, videoconferencing, distance learning, telehealth, uploading content/work product) which all require faster upload speeds, OBD hopes to focus on awarding grants to projects that exceed the state’s 2026 broadband speed goals but may be constrained by federal BEAD requirements. In any event, the Office will continue to track data and produce both a county and township level map of this information in 2024.

Next Steps - Mapping

In 2022, OBD engaged in a new contract to continue the state’s broadband mapping program (with the assumption that federal funding can be used to pay for the state mapping program). The contract has an initial two-year term with the ability to renew in one year increments up to a total of five years. This will enable OBD to revise as necessary to ensure that the data provided continues to meet the state’s needs in light of federal funding from the ARPA Capital Projects Fund and the Infrastructure Investment and Jobs Act (IIJA) and synchronize with location-based data from new broadband maps made public by the FCC.

At the federal level, the FCC has revised the manner in which it conducts broadband mapping as it was required to do in the Broadband Deployment Accuracy and Technology Availability (DATA) Act passed in March 2020 and subsequently funded in the December 2020 Consolidated Recovery Act. The FCC mapping data is available on the FCC’s website at <https://broadbandmap.fcc.gov/home>

In December 2022, OBD entered into a service agreement with the Minnesota Geospatial Information Office (MNGeo) to develop a state address level data set for comparison to the new FCC broadband availability map and for determining locations within the state that are or should be serviceable for broadband service. This data set will enhance OBD’s ability to validate FCC’s mapping and measure progress toward meeting the state’s broadband goals. The partnership also ensures the State owns the data set which provides for uses beyond broadband such as Next-Gen 911. To date, MNGeo has been able to work with eight counties to document broadband serviceable locations.

Broadband Equity, Access and Deployment Planning

The Broadband Equity, Access and Deployment (BEAD) program provides funding for broadband infrastructure and the preparation of a plan by each eligible entity for how to achieve [Internet for All](#). Federal BEAD program funding for broadband infrastructure deployment included a minimum of \$100 million for each state. Allocations to each state above the initial funding were announced on June 26, 2023. Minnesota will receive a total of \$651,839,368. The individual state amounts were calculated from the number of unserved locations (locations without reliable broadband service of at least 25Mbps download and 3Mbps upload) within each state based on new maps that the Federal Communications Commission (FCC) developed as well as the number of such locations in areas deemed to be high cost.

The Office of Broadband Development submitted their Initial Proposal draft for the BEAD program to the National Telecommunications and Information Administration (NTIA) on December 22, 2023. This plan was drafted to best mirror Minnesota's Border-to-Border and Low Population Density Programs that has had nine successful grant rounds since 2014. To receive these reports in an accessible format, please contact deed.broadband@state.mn.us.

[Minnesota's Draft Initial Proposal, Volume 1](#)

[Minnesota's Draft Initial Proposal, Volume 2](#)

The three priorities for use of BEAD funding are for states to first ensure that all locations that do not have reliable broadband service of at least 25Mbps download and 3Mbps upload are served; second, to ensure that underserved locations (those with reliable service of at least 25Mbps download and 3Mbps upload but not at or above 100Mbps download and 20Mbps upload) are served; and third, to ensure 1G symmetrical speeds to all Community Anchor Institutions. If a state can show that it has allocated funding to achieve the three identified priorities, then a state may use its BEAD funding for non-deployment projects. Minnesota's Initial Proposal provides more specific information on how it will use BEAD funding to achieve the priority goals and at this time, it is anticipated that Minnesota's full BEAD allocation will be necessary to meet the first two priority goals outlined by NTIA. As directed by the Minnesota Legislature, BEAD funding will be distributed to reach unserved and underserved areas through the state's existing Border-to Border-Broadband grant programs. [More information on the Border to Border Broadband grant program is available on our website](#). It should also be noted that while the speeds match Minnesota's, NTIA's definition of "reliable broadband service" includes both wireline service and also broadband service delivered over licensed or licensed by rule fixed wireless, which differs from Minnesota's state law definition which relies on wired broadband service for grant eligibility. Therefore, some locations that would be eligible for state grant funding may not be eligible for the grant program when funded with federal BEAD funding unless NTIA approves modifications included by OBD in its Initial Proposal.

As Minnesota's eligible entity, the Office of Broadband Development also submitted the state's BEAD [Five-Year Action Plan \(Appendix 7.1 OBD Meetings 2014 to 2022 and Appendix 7.2 NTIA Local Coordination Documentation Tracker\)](#) to NTIA on July 12, 2023.

Additional information on the federal BEAD program is available on the [NTIA website](#).

Digital Equity Planning

Alongside BEAD, the Bipartisan Infrastructure Law also authorized the Digital Equity Act (DEA) in 2021, appropriating \$2.75 billion to support digital equity investments nationally. As articulated in the bill text, “digital equity” is defined as “the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States.” In alignment with this definition, DEA funding supports states, tribes, and territories in developing and implementing strategies that help residents equitably access, afford, and use technology to achieve their quality-of-life goals.

The DEA Planning Grant performance period began on December 1, 2022, and runs through March 28, 2024 with the award totaling \$881,905.10. In 2023, the following objectives relevant to DEA funding were completed:

- From January through March, OBD’s Digital Equity Program Lead recruited Digital Connection Committees and launched a round of mini-grants to support digital inclusion assessment. Digital Connection Committees are self-selected workgroups formed on a voluntary basis by cities, counties, tribes, anchor institutions, non-profits, etc. Committees worked closely with OBD to inform the content of Minnesota’s Digital Opportunity plan. In total, 106 Committees participated.
- From April through June, the Digital Connection Committees gathered qualitative and quantitative data representing all facets of digital inclusion in Minnesota. Committees submitted 236 data files as a result.
- In July, OBD hired a Digital Equity Grants Administrator to support the future of this work.
- From July through August, OBD wrote a complete draft of Minnesota’s Digital Opportunity Plan.
- In August and September, OBD accepted public comments on this draft through an online form, by mail, and at 18 listening sessions held throughout the state. Listening sessions were attended by 304 Minnesotans, and OBD received 65 written public comments.
- In October, OBD revised the draft plan based on this feedback.
- On November 21, 2023, a revised version of this draft was submitted to NTIA. It has not been approved by NTIA at the time of this publication. It will be posted publicly once NTIA has approved it.

The process of developing Minnesota’s Digital Opportunity Plan was one that centered equity and engaged Minnesotans whenever possible. Rather than use the DEA Planning Grant to hire a single contractor as many other states have done, OBD elected to administer Assessing Digital Inclusion Mini-Grants to a wide variety of applicants, including cities, counties, public libraries, healthcare providers, workforce development organizations, social service providers, culturally-focused non-profits, and municipal broadcasting services. Using these mini-grants—which were no more than \$4,000 each—grantees gathered quantitative and qualitative digital inclusion data to describe the full breadth and depth of digital equity in Minnesota. Out of the 106 Digital Connection Committees, 68 pursued mini-grants.

The result of this community engagement work is a plan that *belongs to* Minnesota rather than a plan that was simply *written for* Minnesota. For example, while preparing the plan, OBD learned that the phrase “digital equity” was unclear; it was not translating well into languages additional to English, and it resonated as jargon

with many English-speakers too. Accordingly, OBD chose to switch the plan’s title from “Digital Equity” to “Digital Opportunity.”

[Minnesota’s Digital Opportunity Plan](#) is currently available to the public in draft form. OBD awaits NTIA’s approval and will then be able to apply for a non-competitive DEA Capacity Grant to carry out activities identified in the plan. At the close of 2023, NTIA had not yet provided a DEA Capacity Grant funding amount, timeline, or Notice of Funding Opportunity.

Connectivity for Community Anchor Institutions

Minnesota has historically prioritized getting connectivity to CAIs with the Border-to-Border program. However, with BEAD funding, the first two funding priorities are to get service to unserved and underserved locations. The third priority is to get gigabit symmetrical speeds to CAIs; however, Minnesota will need all of its BEAD allocation to meet the first two goals. Therefore, unless NTIA agrees that BEAD funding can be used to pay for service to CAIs as projects are built, Minnesota will not be able to fund broadband to CAIs with BEAD funding.

K-12 Connectivity Update

The COVID-19 pandemic fundamentally changed the role and significance of high-speed internet service and digital equity in K-12 classrooms. Launched in 2016, the Minnesota K-12 Connect Forward Initiative is a joint partnership between the Minnesota Department of Education (MDE), the Department of Employment and Economic Development (DEED), the national non-profit Connected Nation, EducationSuperHighway (which has shifted its focus to getting students and teachers connected where learning frequently occurs -- in the home), and representatives from the Minnesota Education Technology Network, Minnesota School Board Administrators, Minnesota School Superintendents, Minnesota Rural Education Association, and the Minnesota Association of Charter Schools. The group met monthly to share information and ideas to assist in addressing the need for all students and teachers to have access to scalable infrastructure, high-speed, affordable bandwidth, and ubiquitous access for distance learning. The education representative on the Governor’s Task Force on Broadband participated in the K-12 Connect Forward work group and relayed information between the two groups. With the Governor’s Task Force on Broadband not meeting during much of 2023 as membership expired and the new members were not announced until late summer, the K-12 Connect Forward work group also paused its meetings in 2023.

Additional Community Anchor Institutions

Public Library Update

The Minnesota Department of Education (MDE) captures upload and download speed data of public libraries during its annual Public Library Report process. In 2022, 78.2 percent of 357 responding library locations indicated receiving download speeds above 50 Mbps, and 84 percent reported upload speeds above 20 Mbps. Twenty-three percent reported service at or above 1 Gbps symmetrical, and all but 1 public library location

indicated they provide free Wi-Fi access. More data from the Public Library Report is available through MDE's [website](#).

Public Safety

The [interactive broadband map](#) maintained by the Office includes the locations of public safety facilities such as police and fire stations when you activate the “Anchor Institutions” layer on the map. Work remains to be done to devise a reliable means of gathering robust connectivity data for these anchor institutions.

Additionally, construction of the nationwide first responder network, known as FirstNet, continues. The federal government awarded the FirstNet contract to AT&T in 2017. Minnesota's participation is coordinated by the Minnesota Department of Public Safety's Emergency Communication Networks (ECN) division. The purpose of FirstNet is to build, operate, and maintain a high speed, nationwide wireless broadband network dedicated to public safety and operable across the country. As new towers are added to expand FirstNet coverage, those towers are also capable of hosting commercial service which helps to expand both cellular phone and broadband coverage. OBD works with both ECN and AT&T to share information regarding areas that could benefit from improved FirstNet and commercial broadband service. In 2023, new towers include locations near Cyrus, MN; between Cloquet and Duluth; in Aurora, Chanhassen, Savage, Shakopee, St. Cloud, Walnut Grove, and Woodbury, MN; in the south-central portion of Koochiching County, as well as on the Red Lake Indian Reservation.

Rural Health Care Program

The federal government, through one of its Universal Service Administrative Co. programs, has funding to assist rural health care providers address connectivity needs. The Rural Health Care Program, or RHC, receives funding and is administered by the Universal Service Administrative Company (USAC). Broadband services and network equipment can receive up to a 65 percent discount for eligible applicants. The RHC Program provides funding through two pathways: the Telecommunications (Telecom) Program and the Healthcare Connect Fund Program.

RHC applicants must be public or non-profit health care providers seeking to improve healthcare services through broadband expansion. The RHC Program has an annual funding cap. This cap, adjusted for inflation annually, is currently \$682,361,586. FY 2023 took place from July 1, 2023, through June 30, 2024. For FY2023, applicants could begin the competitive bidding process as early as July 1, 2022. The filing window for FY2023 took place from December 1, 2022, through May 1, 2023.

The Telecom Program, established in 1997, seeks to ensure that rural health care providers pay no more than their urban counterparts for eligible telecommunications services. Specifically, an applicant's program support is based on the difference between rural rates charged for telecommunications services in the rural area where the health care provider is located, and the urban rates charged for similar telecommunications services in the State. The rural health care provider pays only the urban rate for the telecommunications service, and the USF pays the difference between the urban rate and rural rate for the service to the service provider. The Healthcare Connect Fund Program, established in 2012, provides a flat 65% discount on an array of communications services to both individual rural health care providers and consortia, which can include non-rural health care

providers (if the consortium has a majority of rural sites). These services include internet access, dark fiber leases, business data, traditional DSL, and private carriage services, among others, along with funding for construction of health care provider-owned communications facilities. With the Healthcare Connect Fund Program, the Commission intended to promote the use of broadband services, recognizing the increasing need for rural health care providers to have access to specialists who are often located in urban areas, as well as the advent of certain communications-based trends in healthcare delivery, such as the move towards electronic health records.

As with public safety anchors, the Office includes the locations of hospitals on the interactive broadband map and continues to work on locating a reliable data source to map connectivity levels to individual healthcare facilities.

RHC Commitments for 2023 in Minnesota total \$2,711,873.16 with the majority of that funding awarded through the Healthcare Connect Fund. Only \$17,420.04 has been committed through the Telecom program.

Commitments and Disbursements information can be found here: <https://opendata.usac.org/Rural-Health-Care/RHC-Commitments-and-Disbursements-Tool/sm8n-gg82>

Next Steps and Recommendations – Additional Community Anchor Institutions

In awarding Border-to-Border Broadband grants, DEED requests that applicants provide information on whether community anchor institutions would be served as part of the grant-funded area. Additional points are awarded if that is the case. DEED staff has also found instances where an anchor institution was not part of the project, but because the project brought fiber closer to the location, it became affordable to extend fiber to the anchor institution not included in the grant project area. OBD intends to continue to prioritize broadband service to CAIs with state grant funding. For upcoming grant rounds funded with BEAD funding where service to CAIs is not a priority one or priority two use of funds, OBD is hopeful that NTIA will allow service to be installed to any CAIs located in BEAD funded project areas. If not, at least the BEAD-funded project brings fiber near the CAI which will reduce the cost to the CAI for paying for the final extension of facilities to its location.

With respect to digital opportunity and the forthcoming DEA Capacity Grant funds, OBD intends to deepen its collaboration with CAIs to ensure anchors are poised to meet local digital equity needs when relevant to their community role. CAIs cover wide geographic areas and often reach marginalized groups of people who are more likely to experience digital inequities. In this way, partnership with CAIs provides OBD an efficient channel to support digital equity on both local and statewide scales.

State and Federal Broadband Funding

State Broadband Funding

While prior rounds (Rounds 1-6) of the Border-to-Border Broadband Grant program were funded with state general revenue funds, for 2022 and 2023 (Rounds 7-8), the program was funded with a combination of state

and federal funding and is thus included in the federal funding summary below. Round 9, where applications were received on December 7, 2023, and are currently under review, is funded with state general revenue funds.

Federal Broadband Funding

Federal funding for broadband, while in some instances include longstanding programs, also has received recent emphasis as policy makers take note of the need for universal broadband availability and affordability brought to light by the pandemic. This section addresses the many federal funding sources and the federal agencies administering those funds. Federal appropriations for broadband have been included or allowed in laws passed to address the pandemic, including the Coronavirus Aid, Relief, and Economic Security (CARES) Act passed in March 2020; the Consolidated Recovery Act signed into law in December 2020; the American Recovery Plan Act (ARPA) approved in March 2021; and most recently the Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law signed by President Biden on November 15, 2021. Other federal funding programs have been in place for many years in agency budgets or as part of the Federal Communications Commission's universal service fund (revenues collected from telephone ratepayers, not taxpayers). Each federal funding source or program is discussed below.

CARES Act Funding

Funding provided by the CARES Act to state and local governments was to be used to address circumstances created by the pandemic. A few local governments in Minnesota used this as an opportunity to award funding to broadband providers to construct broadband infrastructure to enable residents to negotiate the need for telework, distance learning, and telehealth. Where broadband service was made available with CARES Act funding, it would show as being available on our broadband map if reported to our mapping vendor.

Consolidated Recovery Act Programs – Tribal Broadband Connectivity Program

Under the Consolidated Recovery Act (CRA), the National Telecommunications and Information Administration of the U.S. Department of Commerce administered three broadband grant programs, Tribal Broadband Connectivity Program (\$980 million), Broadband Expansion to Underserved Communities (\$288 million), and Connecting Minority Communities (\$268 million). The Tribal Broadband Connectivity Program directs funding to tribal governments to be used for broadband deployment on tribal lands, as well as for telehealth, distance learning, broadband affordability, and digital inclusion. NTIA solicited applications nationally and the Office provided information on these grant opportunities on its website under Financial Assistance: [Financial Assistance / Minnesota Department of Employment and Economic Development \(mn.gov\)](#) (The Tribal Broadband Connectivity Program received an additional \$2 billion appropriation under the IIJA/Consolidated Recovery Act, which was combined with the CRA funding, so the total for this program is just under \$3 billion.) Several applicants from Minnesota submitted proposals. In July 2023, NTIA Announced the NOFO for the 2nd Round of Tribal Broadband Connectivity Program. This second round of funding from the Tribal Broadband Connectivity Program will make approximately \$980 million available on Native American, Alaska Native and Native Hawaiian lands for deployment of internet infrastructure, affordability programs, telehealth and distance learning initiatives. Applications are due by January 23, 2024, for 2nd round funding.

In May of 2023, NTIA announced that the White Earth Band of Chippewa Indians received an award of \$500,000 for Broadband Use and Adoption. In 2022, four Tribal entities were awarded NTIA Tribal Broadband Connectivity Program projects: the Bois Forte Band of Chippewa received an award of \$19,800,704, the Lower Sioux Indian Community received an award of \$1,995,787, the Leech Lake Band of Ojibwe received an award of \$18,797,452 and the Mille Lacs Band of Ojibwe received an award of \$11,407,585. OBD will continue to monitor for any additional awards and all awards for projects in Minnesota will be identified on the state broadband maps.

The Consolidated Recovery Act also provided funding to the FCC to administer the Emergency Connectivity Fund which provides funding to schools and libraries for tools and services that enable remote learning. The FCC has been distributing that funding via competitive grant rounds and to date \$77,794,524 has been committed to Minnesota schools and libraries.

Other Tribal Broadband Grants

National Tribal Broadband Grant Program through the Bureau of Indian Affairs. The Office of Indian Economic Development administers the National Tribal Broadband Grant (NTBG) Program, which is a competitive discretionary program, through its Division of Economic Development. All federally recognized American Indian and Alaska Native tribes, bands, villages, nations, or communities are eligible for NTBG funding. NTBG grant applications are rated on the potential positive impacts broadband could bring to an applicant's community, with additional credit awarded to applications involving projects to be developed in Opportunity Zones. An Opportunity Zone is an economically distressed community where new investments, including investments in broadband systems, may be eligible for preferential tax treatment under certain conditions.

Indian Affairs has a webpage with resources for [Tribal broadband funding](#).

American Rescue Plan Act State and Local Fiscal Recovery Funds

The American Rescue Plan Act (ARPA) included broadband infrastructure as an allowed use for State and Local Fiscal Recovery Funds. The state did receive an overall allocation of \$2.83 billion. ARPA funds were used as a match for some projects awarded in December 2022, June 2023, and in the Round 9 applications.

The Office is aware that several local units of government have or are considering using some of their Local Fiscal Recovery Funds (LFRF) for broadband infrastructure, some as independent projects and others included ARPA LFRF as part of the match for a state Border-to-Border Broadband grant application in the 2023 grant round. For those projects that move forward independently, the Office will try and identify such construction on its maps as paid for with Local Fiscal Recovery Funds. For those projects that end up moving forward as part of a state Border-to-Border Broadband grant project, construction funded in part with Local Fiscal Recovery Funds can be readily captured.

American Rescue Plan Act Sec. 604 Capital Projects Fund:

Minnesota received an allocation of \$180,702,620 in American Rescue Plan Act (ARPA) Section 604 Capital Projects Funds (CPF) funding. The Minnesota legislature directed that \$130,703,000 be used for broadband infrastructure purposes with \$70 million being authorized for that purpose in the 2021 legislative session and

\$60,703,000 in the 2022 session. OBD is responsible for the funding directed by the state legislature to be used for broadband infrastructure. The remaining \$50 million was allocated by the Governor's Office to be used for Multi-purpose Community Facilities Projects being administered by the Minnesota Department of Education.

The CPF funding for broadband infrastructure purposes was directed by the Minnesota Legislature to be directed to three programs created in statute: the Border-to-Border Broadband Development Grant Program, the Lower Population Density Pilot Program, and the Line Extension Connection Program.

The Border-to-Border Broadband Development Grant Program funds the expansion of broadband service to areas of Minnesota that are unserved or underserved. It was created in Minn. Stat. § [116J.395](#) in 2014. The legislative focus of this grant program is to provide financial resources that help make the business case for new and existing providers to invest in building broadband infrastructure into unserved and underserved areas of the state. The Border-to-Border Broadband Grant Program had been funded with state general fund revenues (2014-2020) and a combination of both state general fund revenues and federal American Rescue Plan Act (ARPA) Sec. 604 Capital Projects Funds (CPF) for the two grant rounds in 2022 and 2023. At the federal level, ARPA funding is being administered by the U.S. Department of the Treasury.

For the applications received in August 2022 with awards announced December 8, 2022, the state Border-to-Border Broadband Grant program was funded with \$70 million in Capital Projects Funds (CPF) approved by the legislature in the 2021 session and \$25 million in state general revenue funds approved by the legislature in the 2022 session. The 2023 grant round, announced on December 19, 2022, and awarded June 28, 2023, included approximately \$12 million in CPF funding and \$25 million in state general revenue funds for the Border-to-Border grant program and \$30 million in CPF funding for the Lower Population Density Pilot Program. The CPF funded Border-to-Border and Lower Population Density grants will reach a total of 29,589 locations, consisting of 20,071 unserved locations and 9,518 underserved locations. Viewed another way, CPF funded projects will extend broadband services to a total of 20,475 households, 3,476 businesses, 5,503 farms and 135 Community Anchor Institutions.

The remaining CPF funds approved in the 2022 session for broadband are being used to support the Line Extension Connection Program where applications were due by July 24, 2023, to serve eligible addresses registered with the state. OBD announced the first round of the Line Extension Connection Program awards on a rolling basis beginning October 6, 2023 and ending November 9, 2023. The first round of the program awarded \$4,395,257 to expand wired broadband delivering at least 100 Mbps download and 100 Mbps upload to 843 locations across 32 counties. Of these locations, 779 are residences and 64 are businesses. Internet providers carrying out the projects matched \$2,225,747.14 for a total investment of \$6,621,004.59. The second round of the Line Extension Connection Program is currently open with bids due by February 9, 2024.

Infrastructure Investment and Jobs Act (IIJA)

The Infrastructure Investment and Jobs Act (IIJA) was signed into law on November 15, 2021. It provides approximately \$65 billion for broadband nationally. Two programs that will be administered directly by the Office of Broadband Development with this funding are the Digital Equity Planning grant and the Broadband

Equity, Access and Deployment (BEAD) grant. OBD has completed both a Digital Opportunity Plan and the BEAD Initial Proposal and submitted these to NTIA in November and December 2023, respectively.

Other Broadband Programs Funded by IIJA

Affordable Connectivity Program (FCC)

To help ensure that broadband is affordable, the IIJA included \$14.2 billion for the new Affordable Connectivity Program (ACP), which is to replace the temporary Emergency Broadband Benefit that was available in 2021. The FCC worked diligently to stand up the ACP and eligible households were transitioned to this new benefit program in early 2022. While the eligibility criteria to participate in ACP generally stayed the same as for the EBB, the monthly benefit under the new program was reduced from the \$50/month it had been under EBB to \$30/month. (The benefit of \$75/month for eligible households on tribal lands remained the same as the EBB.)

ACP is administered by the Universal Service Administrative Company (USAC) with oversight from the Federal Communications Commission (FCC). Eligible households can also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers. The latest data shows that as of the week of December 11, 2023, 237,621 households in Minnesota were participating in ACP, an increase from 164,324 in December 2022. Approximately 772,000 households are eligible for ACP in Minnesota. That is an enrollment rate of almost 31%. Unfortunately, with the amount of households in the nation using the ACP (approximately 22 million), it is currently forecast to run out of funds in April 2024. The FCC is expected to issue instructions in mid-January on how to unwind the ACP program given the exhaust of funding.

ReConnect Program (USDA)

The U.S. Department of Agriculture (USDA) also received funding under the IIJA for its ReConnect program. In April 2023, USDA began to announce recipients of ReConnect Round 4 awards. See below for more information on local awards.

Tribal Broadband Connectivity Program (NTIA)

The IIJA includes an additional \$2 billion for NTIA's Tribal Broadband Connectivity Program, a program that NTIA previously implemented under the Consolidated Appropriations Act, 2021. The Tribal Broadband Connectivity Program directs funding to tribal governments to be used for broadband deployment on tribal lands, as well as for telehealth, distance learning, broadband affordability, and digital inclusion. NTIA is the administering agency for this funding and has information on its website on how to apply and eligible uses. Several Minnesota tribes have received funding through this program, including the Bois Forte Band of Chippewa, Leech Lake Band of Ojibwe, Lower Sioux Indian Community, Mille Lacs Band of Ojibwe, and the White Earth Band of Chippewa Indians.

Enabling Middle Mile Broadband Infrastructure Program (NTIA)

NTIA is administering the Enabling Middle Mile Broadband Infrastructure Program, another component of IIJA. This grant program provides \$1 billion in funding to internet providers carrying out projects that connect high-

speed internet networks to each other. These projects do not directly connect homes or businesses to broadband service, but rather serve to carry large amounts of data over long distances, bridging the space between disconnected communities so that future last-mile projects are more affordable and achievable.

Nationally, 39 Awards were made to 36 organizations across 40 states and territories in the amount of \$979,998,024.84. These applications were initially due to NTIA by September 30, 2022, with an extension granted to November 1, 2022 for applicants that focused on projects from areas impacted by natural disasters. Pockets of southeast Minnesota will see Enabling Middle Mile funding through a \$14.89 million project submitted by Dairyland Power Cooperative in Wisconsin that crosses rural areas in four states.

Traditional Federal Programs for Broadband

U.S. Department of Agriculture ReConnect Program

The ReConnect Program offers unique federal financing options in the form of grants, loans, and combinations thereof to create or improve rural e-Connectivity for rural customers across America. The U.S. Department of Agriculture (USDA) opened ReConnect round four on August 2022 with applications due November 2, 2022, with funding from the \$2 billion appropriated in the Infrastructure Investment and Jobs Act for the ReConnect program. In June of 2023 USDA Announced a total of \$48.5M in grants and loans to connect thousands of rural residents, farmers and business owners in rural Minnesota to reliable, affordable high-speed internet. Investments include Johnson Telephone Co., Meeker Co-op. LPA, and MiEnergy Co-op. In August 2023 USDA announced an award for Lismore Co-op. Telephone Co.

Broadband projects in Minnesota constructed with ReConnect funds are identified as such on the state broadband maps.

USDA ReConnect Round 4 Funding

100% Grant Award Announced February 2023 (FY 2022)

1. Paul Bunyan Rural Telephone Cooperative
Total square miles: 155
Funded Service Area Households: 1,513
Award Amount: \$10,191,416

This Rural Development investment will be used to deploy a Fiber-to-the-Premises network. The network will connect 3,529 people, 71 businesses, 35 farms and two public schools to high-speed internet in Hubbard, Itasca and St. Louis counties.

USDA FY 2023 ReConnect Round 4 Awards (FY23) listed by award type

ReConnect Projects serving areas where 90% of households lack sufficient access to broadband

2. Meeker Cooperative Light & Power Association

Total square miles: 76.4

Funded Service Area Households: 155

Award amount: \$19,039,348

This Rural Development investment will be used to deploy a fiber-to-the-premises network to provide high-speed internet. This network will benefit 458 people, 16 businesses, 124 farms and one educational facility in Kandiyohi, Meeker and Stearns counties in Minnesota. Meeker Cooperative Light & Power Association will make high-speed internet affordable by participating in the Federal Communications Commission's (FCC) Affordable Connectivity Program.

50/50 ReConnect Loan/Grant Combination

3. Johnson Telephone Company

Total square miles: 59.2

Funded Service Area Households: 440

Award Amount: \$15,832,816

This Rural Development investment will be used to deploy a fiber-to-the-premises network to provide high-speed internet. This network will benefit 949 people, 30 businesses and 13 farms in Cass County, Minnesota. Johnson Telephone Company will make high-speed internet affordable by participating in the Federal Communications Commission's (FCC) Lifeline and Affordable Connectivity Programs

4. Applicant: Lismore Cooperative Telephone Company

Total square miles: 548.8

Funded Service Area Households: 1,477

Award amount: \$19,412,110

This Rural Development investment will be used to deploy a fiber-to-the-premises network to provide high-speed internet. This network will benefit 3,839 people, 127 businesses, 679 farms and one educational facility in Nobles County in Minnesota. Lismore Cooperative Telephone Company will make high-speed internet affordable by participating in the Federal Communications Commission's (FCC) Lifeline and Affordable Connectivity Programs.

5. Applicant: MiEnergy Cooperative

Total square miles: 91.3

Funded Service Area Households: 377

Award amount: \$13,677,078

This Rural Development investment will be used to deploy a fiber-to-the-premises network to provide high-speed internet. This network will benefit 1,017 people, nine businesses and 148 farms in Fillmore County in Minnesota. MiEnergy Cooperative will make high-speed internet affordable by participating in the Federal Communications Commission's (FCC) Lifeline and Affordable Connectivity Programs.

Past USDA ReConnect Awards

In the first three rounds of the ReConnect program, Minnesota applicants had been awarded eight projects totaling over \$72.9 million in grants and loans. Several Minnesota projects were funded in the ReConnect round 3, including grants to Mille Lacs Energy Cooperative (\$3,788,680), Tekstar (Arvig) (\$12,602,274), and 50/50 grant-loan combinations to Winnebago Cooperative Telephone Association (\$25,113,544), Upsala Cooperative Telephone Association (\$6,551,758) and Spring Grove Communications (\$11,414,096).

2023 USDA Distance Learning and Telemedicine Awards

The Distance Learning and Telemedicine (DLT) Program provides funding to improve rural access to telehealth and distance learning opportunities. This is accomplished through expanded access to telecommunications and related advanced technologies. Projects most often focus on situations where the patients or students are not in the same geographic location as the source of the healthcare or education service. USDA made \$64 million available in fiscal year 2023. The Distance Learning and Telemedicine grant window opened on December 1, 2022, and closed January 30, 2023. Two DLT grants were awarded within the state in 2023:

1. Warren Community Hospital, Inc.
Applicant Match: \$148,000
RUS DLT Grant: \$837,000
Total Project Cost: \$985,000

This Rural Development investment will be used to equip 1 hub site and 2 end-user sites throughout Marshall County in northwestern Minnesota with telehealth platform equipment. Medical professionals at North Valley Health Center in Marshall County, Minnesota will deliver clinic-based medical services to 2 locations benefitting 7,440 individuals.

2. East Central Minnesota Cable Cooperative
Applicant Match: \$33,500
RUS DLT Grant: \$187,206
Total Project Cost: \$220,706

This Rural Development investment will be used to equip 16 hub/end-user sites throughout Chisago, Douglas, Isanti, Kanabec, Mille Lacs, Pine and Stearns counties in Central Minnesota with high quality video equipment designed to support fully interactive teaching and learning. Instructors from several school districts and Community and Technical College in Chisago, Douglas, Isanti, Kanabec, Mille Lacs, Pine and Stearns counties in Minnesota will deliver high school and college credit courses in world/native languages, college general education and career/technical education to 16 sites benefitting 51,211 students.

Past Distance Learning and Telemedicine Grants

2021 (FY22): CentraCare Health System (\$236,214), Riverland Community College (\$137,331)

USDA Community Connect

The USDA also conducts a Community Connect grant program for broadband infrastructure. The Community Connect provides financial assistance to eligible applicants that will provide broadband service in rural, economically challenged communities where service does not exist. Eligible applicants include Incorporated organizations, federally recognized Tribes, State and local units of government, any other legal entity, including cooperatives, private corporations, or limited liability companies organized on a for-profit or not-for-profit basis.

The current Program Application Period began in December 2023. The application window is open until February 20, 2024. More information here: <https://www.rd.usda.gov/programs-services/telecommunications-programs/community-connect-grants>

The Community Connect program did not offer an application in 2022. Prior recipients of Community Connect grants in Minnesota include Northeast Service Cooperative, Fond du Lac Band of Ojibwe, Mille Lacs Energy Cooperative and Consolidated Telephone Company.

Federal Communications Commission (FCC) Connect America Fund (CAF) and Rural Digital Opportunity Fund (RDOF)

The Federal Communications Commission (FCC) has transitioned its Universal Service Fund to the Rural Digital Opportunity Fund (RDOF). The Rural Digital Opportunity Fund (RDOF) will disburse up to \$20.4 billion over 10 years to bring fixed broadband and voice service to millions of unserved homes and small businesses in rural America. Building on the success of the Connect America Fund Phase II Auction (CAF II Auction), RDOF uses a two-phase, competitive reverse auction (Auction 904) that prioritizes higher network speeds and lower latency to ensure the deployment of robust, sustainable high-speed networks that meet the needs of consumers now and in the future RDOF Phase I payments began in 2021 on a rolling basis, with support terms running 10 years. RDOF recipients have up to eight years to complete deployment and must meet interim deployment milestone.

On December 20, 2023, the Wireline Competition Bureau, in conjunction with the Office of Economics and Analytics (OEA), announced the conclusion of the Rural Digital Opportunity Fund auction (Auction 904) long-form application review. There were 379 support recipients with authorized winning bids totaling over \$6 billion in support over a ten-year term, covering just under 3.5 million locations in 48 states and one territory. While authorized bids included a range of performance tiers, over 97% of locations are covered by winning bids for Gigabit speed service. Results can be found here: <https://www.fcc.gov/auction/904>

The RDOF-1 auction was held in November/December 2020 with auction winners announced in late 2020 and follow up filings due at the FCC in 2021. During 2021 and 2022, the FCC announced the final award or denial of funding to most bidders on eligible census block groups bid on in Minnesota. Once approved for funding, the clock starts on the six-year time frame for construction. The following chart shows the auction winners and

dollar amounts awarded in the RDOF auction. The entities highlighted in green received final approval for funding at the time of this report while those in yellow were found to be in default by the FCC¹.

Table 5: RDOF Auction Award Winners, approved and defaulted

Bidder	Support	Locations
AMG	\$3,736,316	1,408
Arrowhead Elec. Coop.	\$18,462,273	4,879
CenturyLink (Qwest)	\$15,646,093	3,265
Consolidated Comm.	\$11,126	12
Consolidated Tel. Co. (CTC)	\$2,040,279	979
Consortium of AEG and Heron	\$6,709,428	1,150
Farmers Mutual Tel. Co.	\$759,822	332
Federated Tel. Coop.	\$537,399	248
Fond du Lac Comm.	\$1,046,123	728
Garden Valley Tel. Co.	\$2,792,139	492
Gardonville Coop. Tel.	\$63,903	24
Great Plains Consortium	\$81,701	402
Halstad Tel. Co.	\$325,917	111
Interstate Telecom Coop. Inc.	\$51,749	391
LTD Broadband LLC	\$311,877,936	102,005
Midcontinent Comm.	\$4,452,047	6,054
Paul Bunyan Rural Tel. Coop.	\$16,307,892	5,088
Red River Rural Tel. Assn.	\$29,952	11
Roseau Electric Coop.	\$1,228,494	266
Savage Comm. (SCI)	\$6,090,479	4,541
SpaceX	\$8,424,808	7,529
Wikstrom Tel. Co.	\$983,637	228
Windstream	\$6,548,964	2,899
Winnebago Coop. Tel.	\$20,542	178

Green=Long Form Approved

Yellow=Default

The interactive map available on OBD’s website (<https://mn.gov/deed/programs-services/broadband/maps/general-maps.jsp>) includes the RDOF funded areas as an overlay.

¹ At its November 16, 2023 agenda meeting, the Minnesota Public Utilities Commission (PUC) suspended LTD’s ETC designation. The FCC issued an Order on December 4, 2023, affirming denial of its application to be authorized to receive broadband support from the RDOF. The FCC also denied approval of SpaceX’s long form application.

Other FCC Funding: USAC High Cost, Modernized Funds

Alternative Connect America Cost Model or ACAM I, Revised A-CAM, ACAM II; CAFA Phase II Model, CAF Phase II Auction, CAF Broadband Loop Support (BLS) for the smaller incumbent telephone companies in the state continues to aid these companies as they upgrade broadband service in their historic telephone exchange areas, and Enhanced Alternative Connect America Cost Model Support (E-ACAM) These areas can also be seen as an overlay on the interactive map.

Enhanced A-CAM (E-ACAM)

In October 2023, the FCC Announced nearly \$18.3 billion in Enhanced A-CAM (E-ACAM) funds. E-ACAM is rural broadband funding and has been awarded to 388 internet providers nationally. Infrastructure supported with E-ACAM must meet speed minimums of 100/20 Mbps. Providers accepting E-ACAM have four years to complete deployments during a 15-year window.

A list of providers located in Minnesota that accepted E-ACAM offers for the years of 2024-2038 are as follows; Albany Mutual Telephone Association, Alliance Communications Cooperative, Inc. Arvig Enterprises, Inc. Benton Cooperative Telephone Company, Consolidated Telephone Company, Emily Cooperative Telephone Company, Garden Valley Telephone Company, Gardonville Cooperative Telephone Association, Halstad Telephone Company, Harmony Telephone Company, Johnson Telephone Company, Kasson & Mantorville Telephone Company, Manchester-Hartland Telephone Company, Park Region Mutual Telephone Company, Paul Bunyan Rural Telephone Cooperative, Rural Communications Holding Corporation, Spring Grove Communications, Telephone & Data Systems, incl. UScellular, Tri-Co Technologies, LLC, Upsala Cooperative Telephone Association, West Central Telephone Assn., Wikstrom Telephone Company, Inc.

Revised Alternative Connect America Cost Model (Revised ACAM) – Provides set monthly payments based on a cost model to Rate of Return carriers to build broadband to a specific number of fixed locations in areas eligible for funding. Revised ACAM increased model-based support for existing ACAM carriers to meet expanded broadband buildout obligations. The Revised ACAM support term runs from 2019 to 2028. Revised ACAM carriers have until the end of 2028 to complete deployment and must meet interim deployment milestones.

Alternative Connect America Cost Model II (ACAM II) – Provides set monthly payments based on a cost model to Rate of Return carriers that voluntarily elected to transition from CAF BLS funding to model-based support to build broadband to a specific number of fixed locations in areas eligible for funding. The ACAM II support term runs from 2017 to 2028. ACAM II carriers have until the end of 2028 to complete deployment and must meet interim deployment milestones.

Connect America Fund (CAF) Phase II Auction – Provides support to entities that successfully bid in a 2018 competitive reverse auction to deploy broadband in areas where the incumbent price cap carrier did not accept CAF II Model funding and other price cap areas that are most costly to serve. CAF II Auction payments began in 2019 on a rolling basis, with support terms running 10 years. CAF II Auction carriers have until the end of 2025 to complete deployment and must meet interim deployment milestones.

Connect America Fund Broadband Loop Support (CAF BLS) – Provides support based on carrier costs and other financial data to Rate of Return carriers to build broadband to a specific number of fixed locations in areas eligible for funding. The CAF BLS support term runs from 2019 to 2023, and carriers must complete deployment by the end of 2023.

Mobility Fund – Provides support for the expansion of mobile broadband networks in areas that might otherwise not be served.

Rural Broadband Experiments (RBE) – Provides funding to telecommunications carriers that successfully bid to deploy broadband in unserved price cap areas, including rural areas that are the most costly to serve. The RBE support term runs from 2015 to 2025. RBE carriers must meet interim and final deployment milestones on a rolling basis.

Economic and Social Impacts of Broadband

In addition to the examples from the Border-to-Border Broadband Infrastructure grant projects, which positively impact individual households and businesses as they are connected, national studies and reports show the benefits of and/or need for high-speed broadband access.

- “High broadband connectivity rates are positively linked to factors such as GDP growth and stability. They enable jobs, promote resiliency in the face of disasters, and support the massive and growing digital economy.” <https://itif.org/publications/2023/08/14/enabling-equity-why-universal-broadband-access-rates-matter/>
- “Internet access is increasingly recognized as a “super determinant” of health. It plays a role in health care outcomes and influences more traditionally recognized social determinants of health, such as education, employment, and healthcare access.” <https://www.samhsa.gov/blog/digital-access-super-determinant-health#:~:text=Internet%20access%20is%20increasingly%20recognized,%2C%20employment%2C%20and%20healthcare%20access.>
- “The digital economy is the equivalent of over 15% of global GDP, growing two and a half times faster than total GDP over the past 15 years. Specifically, the Internet economy’s contribution to US GDP grew 22% per year since 2016, in a national economy that grows between 2-3% annually.” <https://www.wilsoncenter.org/article/closing-digital-divide>
- “The digital economy is the equivalent of over 15% of global GDP, growing two and a half times faster than total GDP over the past 15 years. It is considered the single most important driver of innovation, growth, and job creation.” <https://www.wilsoncenter.org/article/closing-digital-divide>
- “...between 2010 and 2020. Human capital and labor growth also were substantial contributors, accounting for a combined 21.3% of growth. But growth in broadband adoption, combined with broadband speed growth, had about the same impact as human capital and labor growth, accounting for a combined 22.4% of GDP growth.” <https://www.telecompetitor.com/study-finds-broadband-has-a-major-impact-on-u-s-economic-growth/>

- “In addition to having more access to technical equipment, a third of providers (8 out of 26) highlighted the need to have access to reliable internet.” - 2023 MDH preliminary report supporting Medicare recipients using telehealth services, “Assessing Telehealth Utilization and Experiences Among Adult Medical Assistance (MA) Enrollees in Minnesota”
<https://www.lrl.mn.gov/docs/2023/mandated/231387.pdf>
- “Broadband access provides communities with cultural and economic development, allowing them access to digital literacy and connections that build engagement, self-esteem, and the capacity for growth” - “Bridging the digital divide for Native American tribes: Roadblocks to broadband and community resilience” (2023) <https://onlinelibrary.wiley.com/doi/pdf/10.1002/poi3.339>
- “We create[d] a panel of US counties and measure[d] the effect of broadband adoption on student educational achievement...For the typical student in a county, the main results indicate that higher broadband adoption increases standardized test scores in both math and reading/language arts.” - “Community-wide broadband adoption and student academic achievement” (2023)
<https://dl.acm.org/doi/abs/10.1016/j.telpol.2022.102445>
- “For our research, we were able to take data from the census bureau and labor statistics bureau to measure the impact of an available broadband connection on the unemployment rate at the county level. We applied granularity for this study as we dive into forty states across the United States and 1,268 counties within those states... Overall, what we saw was that broadband availability does impact unemployment when considering county-level data at the State level” - “Increasing Broadband Access’ Impact on the Economy at the Local Level” (2023)
<https://faculty.utrgv.edu/louis.falk/qrbd/QRBDmay23.pdf#page=10>

Next Steps and Recommendations

This year, we announced a total of \$36,907,763 in Border-to-Border grant projects, \$29,961,246 in Lower Population Density grant projects and \$4,395,257 in Line Extension Connection projects. Local matches totaled \$73,725,747. These grants funded the connection of 13,979 locations.

The 2023 Legislature appropriated \$50 million for each of FY 2024 and FY 2025. The FY 2024 State General Revenue Funds of \$50 million will fund the ninth grant round. Plans for distribution of the FY 2025 funding are still being developed. Subsequent grant rounds are anticipated to be funded with approximately \$652 million in federal Broadband Equity, Access, and Deployment Funds (BEAD).

In 2024, in addition to concluding the grant round (Round 9) that opened in December 2023, the Office will be working to ensure it meets all requirements to receive IJA federal funding for Minnesota’s Broadband Equity, Access and Deployment (BEAD) allocation in the amount of \$651,839,368.00 and Digital Equity Act funding through the National Telecommunications and Information Administration. Additional attention will be given to working with Digital Connection Committees throughout the state, applying for the Digital Equity Act (DEA) Capacity Grant funds, then using these funds to begin to implement key activities and strategies identified in the approved version of Minnesota’s Digital Opportunity Plan.

In preparation for the large influx of federal funding, we anticipate our office to grow both in employee size and capacity to fulfill the broadband needs for all Minnesotans in 2024 and beyond.

The funding for broadband and for digital equity will require engagement by the Office of Broadband Development, The Minnesota Legislature, partners, stakeholders, and various organizations to ensure that the resources are put to the best and most efficient use to meet the state's broadband speed goals and fulfill the definition of digital equity and digital inclusion for all Minnesotans.