



Minnesota's Initial Proposal Volume 1

DRAFT

Broadband Equity, Access, and Deployment (BEAD) Program

Table of Contents

Overview	3
1.1 Existing Broadband Funding (Requirement 3)	4
1.2 Unserved and Underserved Locations (Requirement 5)	4
1.3 Community Anchor Institutions (Requirement 6)	4
1.4 Challenge Process (Requirement 7)	6

Overview

The Infrastructure Investment and Jobs Act (IIJA) was signed into law on November 15, 2021. It provides approximately \$65 billion for broadband nationally. The Office of Broadband Development at the Minnesota Department of Employment and Economic Development was selected as Minnesota's Eligible Entity to administer the state's funding for broadband, including the funding for broadband called the Broadband Equity, Access and Deployment (BEAD) program. At the federal level, the BEAD program is being administered by the National Telecommunications and Information Administration (NTIA) of the U.S. Department of Commerce.

Broadband Equity, Access and Deployment (BEAD)

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.

Prior to receiving its BEAD funding allocation, each Eligible Entity must submit an Initial Proposal to NTIA for approval. The Initial Proposal must allow for public comment. NTIA expects states to submit their Initial Proposal in two volumes, Volume 1 and Volume 2. Below is the information required by NTIA to be addressed as part of Volume 1 of the Initial Proposal. Volume 2 is also available for public comment and during the same public comment timeframe.

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

1.1 Existing Broadband Funding (Requirement 3)

Per NTIA requirements, this information is provided as an attachment to Volume 1.

1.2 Unserved and Underserved Locations (Requirement 5)

1.2.1 Attach two CSV files with the location IDs of all unserved and underserved locations, respectively, including unserved and underserved locations in applicable Tribal Lands.

In this section, the Minnesota Office of Broadband Development must identify each unserved location and underserved location in Minnesota using the most recently published Broadband DATA Maps and identify the date of publication of the Broadband DATA Maps used for such identification.

To satisfy this requirement, two .csv files will be downloaded from the most recent version of the FCC Broadband map when the Office of Broadband Development formally submits Volume One to NTIA. The Office of Broadband Development plans to ensure the most recent and accurate version of this data is represented. These .csv files will list broadband serviceable locations per the FCC Map. The data sourced from the FCC maps will not predate the submission of Volume One by more than 59 days.

1.2.2 Identify the publication date of the National Broadband Map that was used to identify the unserved and underserved locations.

Per NTIA requirements, only the first edition of each month can be selected, and the publication date of the National Broadband Map cannot predate the submission of the Initial Proposal by more than 59 calendar days, a timeframe designed by NTIA to allow Eligible Entities sufficient time to identify eligible locations from the National Broadband Map and submit the Initial Proposal.

Publication date will be inserted when Initial Proposal is submitted to NTIA.

1.3 Community Anchor Institutions (Requirement 6)

1.3.1 Describe how the statutory definition of “community anchor institution” (e.g., schools, libraries, health clinics) was applied, how eligible CAIs were identified, and how network connectivity needs were assessed, including the types of CAIs that the Eligible Entity intends to serve.

The Minnesota Legislature has determined that any funding for broadband that the state receives under IJJA is to flow through the state’s existing Border-to-Border broadband infrastructure grant program. The Border-to-Border broadband grant application defines a CAI as an entity such as a school, library, health center (including clinic), hospital or other medical provider, public safety entity, institution of higher education, public housing organization (including any public housing agency, HUD-assisted housing organization, or Tribal housing organization), or community support organization that facilitates greater use of broadband service by vulnerable populations and includes CAIs on tribal lands. Minnesota has been mapping broadband deployment data since 2008. As part of

the American Recovery and Reinvestment Act (ARRA) funding for broadband mapping, all states were required to map connectivity to Community Anchor Institutions. Minnesota's interactive map added that layer as part of the ARRA requirements through extensive and multiple outreach efforts to national, state and local organizations to obtain location and broadband service levels for CAIs and has maintained that layer to date. The CAI layer can be found by going to Minnesota's interactive map: [Minnesota Map](#) and turning on the "Anchor Institution" layer.

With that layer available since approximately 2009, it is expected that any CAIs not represented on the map would have reached out to our office to be included. If they have not, then the public comment period on the Initial Proposal provides a continuing opportunity to do so. Public housing organizations were not included in the definition of CAIs when this list was developed for ARRA. Any public housing organizations that want to be included on the map can include that request in the public comment period.

Since Minnesota has had a process to map CAIs for several years, and because the BEAD allocation for Minnesota is inadequate to address priority #3 (gigabit symmetrical speeds to CAIs), the Office of Broadband Development with its limited resources and very short timeline for preparing the Initial Proposal did not stand up a new process to identify CAIs, did not consider and decline to classify any additional entities as CAIs, does not propose to serve one or more CAIs in a category not explicitly cited as a type of CAI in Section 60102(a)(2)(E), and did not reassess the needs of CAIs. OBD has requested the ability to include CAIs in projects intended to serve unserved and underserved locations (priorities #1 and #2 of BEAD) but has been informed verbally and by comments on the draft Initial Proposal by NTIA that if a location is not shown as eligible then those CAI locations will be excluded from BEAD funding and bypassed by providers constructing broadband in those areas unless the CAI pays out of pocket for the service extension or the provider pays the extension costs.

Two additional factors should also be noted when discussing broadband connectivity for CAIs. Since approximately 2016, the Office of Broadband Development, K-12 school technology coordinators, and EducationSuperHighway engaged in a project to identify and address K-12 building connectivity. Secondly, Minnesota IT Services (MNIT—the central IT organization for the State of Minnesota), in addition to providing connectivity for all branches of state government, also provides connectivity for all courts, and, upon request, for counties, and higher education in the state which provides another measure and option for anchor institutions to be connected.

The priority uses of BEAD funding delegate CAIs to a third level priority. Given Minnesota's state law requirement and current practice, the Office of Broadband Development, as part of its ongoing assessment of CAI connectivity needs, will continue to prioritize broadband deployment to applications that include CAIs that are unserved or underserved, including using BEAD funding to fund broadband deployment to CAI locations included in applications, even if the state is not able to show that all unserved (BEAD Priority #1) and all underserved (BEAD Priority #2) locations have received service before a CAI location is funded. If NTIA will require BEAD funded applications to remove any and all CAIs from being funded as part of projects to get broadband service deployed to all other unserved and underserved locations which is provided for in Minnesota state law for the Border-to-Border grant program, OBD will need that specified separately in writing from a top NTIA official and on NTIA letterhead.

Given all of the above, Minnesota has not devoted resources to creating a new .csv listing of CAIs. The list used in the creation and update of the interactive map is included in the Initial Proposal as an attachment.

1.4 Challenge Process (Requirement 7)

1.4.1 *Select if the Eligible Entity Plans to adopt the NTIA BEAD Model Challenge Process for Requirement 7.*

Yes

No

1.4.2. *If applicable, describe any modifications to classification of broadband serviceable locations in the Eligible Entity's jurisdiction as "served," "underserved," or "unserved," and provide justification for each modification.*

The Minnesota Office of Broadband Development will adopt both Optional module 2 and Optional module 3 as well as a Fixed Wireless module necessary for compliance with Minnesota State Law.

Optional Module 2: Digital Subscriber Line (DSL) modifications: The broadband office will treat locations that the National Broadband Map shows to have available qualifying broadband service (i.e., a location that is "served") delivered via DSL as "underserved." This modification will better reflect the locations eligible for BEAD funding because it will facilitate the phase-out of legacy copper facilities and ensure the delivery of "future-proof" broadband service. This designation cannot be challenged or rebutted by the provider.

Optional Module 3: The broadband office will treat as "underserved" or as "unserved" locations that the National Broadband Map shows to be "served" if rigorous speed test methodologies (i.e., methodologies aligned to the BEAD Model Challenge Process Speed Test Module) demonstrate that the "served" locations actually receive service that is materially below 100 Mbps downstream and 20 Mbps upstream or below 25 Mbps downstream and 3 Mbps upstream. This modification will better reflect the locations eligible for BEAD funding because it will consider the actual speeds of locations. As described below, such speed tests can be rebutted by the provider during the rebuttal period.

Fixed Wireless Modifications:


This module is not included in the NTIA Model Challenge Process. It has been added by the Office of Broadband Development and is subject to review and approval by NTIA.

Minnesota state law specifies that if Minnesota receives federal money for broadband development under Public Law 117-58, the Infrastructure Investment and Jobs Act, the money is appropriated to the Commissioner of Employment and Economic Development for grants under Minn. Stat. 116J.395 which is the Border-to-Border broadband development grant program. Eligibility for the Border-to-Border broadband development grant program hinges on not having a wired broadband service available delivering at least 25Mbps download and 3Mbps upload (25/3) service as consideration of being unserved and having a wired broadband service of at least 25/3 but not at or above 100Mbps

download and 20Mbps service as consideration of being underserved.¹ Given Minnesota’s state law requirement which relies on the lack of a wired broadband service to be considered unserved or underserved, terrestrial fixed wireless technologies do not meet state law definition for a location to be considered “served”. Consistent with the NTIA’s DSL Modifications and Speed Test Modules, to be in compliance with state law requirements, the Office of Broadband Development will treat locations that the National Broadband Map shows to have available qualifying broadband service (i.e., a location that is “served”) delivered via licensed fixed wireless as “unserved”. This modification will ensure BEAD eligible locations comply with state law requirements, better reflect the locations eligible for BEAD funding because it will ensure the delivery of “future-proof” broadband service and align all locations eligible for grant funding to the same standard.

The Office of Broadband Development understands there is a difference between Minnesota’s state law requirements and the BEAD NOFO language on what is a “reliable broadband service” but is bound to uphold state law. Minnesota’s law for using IJJA BEAD funding through the Border-to-Border broadband grant program allows “(T)he commissioner of employment and economic development may temporarily modify program standards under Minnesota Statutes, section 116J.395, and sections 2 and 6 of this article to the extent necessary to comply with federal standards that apply to funding received under this section.” Thus, if NTIA rejects a blanket exclusion of fixed wireless, the Office of Broadband Development will adopt a Fixed Wireless Modification as described below with NTIA approval.

The Office of Broadband Development will treat as “unserved” locations that the National Broadband Map shows to be “served” where Licensed Fixed Wireless using cellular technologies (e.g., T-Mobile 4G/5G Home Internet, AT&T Internet Air) is the only technology at the location satisfying the “served” requirements. A Minnesota resident accessing the FAQs for T-Mobile’s home internet service would find that T-Mobile cannot deliver broadband speeds of at least 20Mbps upload to a significant portion of its customers. See the response to the FAQ “What kind of upload speeds can I expect with T-Mobile Home Internet?” where T-Mobile itself acknowledges that the typical upload speeds range from 15-31 Mbps, which demonstrates that the range includes upload speeds below 20Mbps *plus* 25 percent of customers see speeds below this range.

What kind of upload speeds can I expect with T-Mobile Home Internet? 

Typical upload speeds are between 15 – 31 Mbps. 25% of our customers see speeds below and 25% see speeds above this range.

See [T-Mobile.com/OpenInternet](https://www.t-mobile.com/OpenInternet) for details.

For download speeds, the information that a Minnesota consumer would find directly from T-Mobile’s website (<https://www.t-mobile.com/home-internet/faq?INTNAV=fNav%3ASupport%3AHomeInternetFAQ>) similarly acknowledges that the download speeds are also not going to achieve 100Mbps for a not insignificant percentage of

¹ See definitions in Minn. Stat. 116J.394.

subscribers, where both the provided range does not always include speeds of 100Mbps download and also indicates that one-quarter of subscribers will see service below those download speeds:

What speeds can I expect from T-Mobile Home Internet?



T-Mobile 5G Home Internet customers receive consistent broadband speeds and see typical download speeds between 72 – 245 Mbps, which is great speed for streaming video, surfing the web, working from home and most types of online gaming. 25% of our customers see speeds below and 25% see speeds above this range. T-Mobile 5G Home Internet is delivered via 5G cellular network and speeds vary due to factors affecting cellular networks. Our speed projections are based on our analysis of internal and third-party data for eligible customers. See [T-Mobile.com/OpenInternet](https://www.t-mobile.com/OpenInternet) for more information.

Verizon's fixed wireless service, like T-Mobile's, does not consistently achieve reliable speeds of at least 100Mbps download and 20Mbps upload per information on its website (see <https://www.verizon.com/support/broadband-services/>)

Similar to T-Mobile, Verizon acknowledges that both its download and upload speeds fall short of the requirements to be considered served:

What speeds and performance can a Verizon Broadband Internet Access Services customer expect, and where are these speeds available?

Based on our internal testing and testing commissioned from third-party vendors, Verizon expects customers will experience the following speeds unless such speeds are otherwise managed through network optimization practices described in your plan (speed ranges are based on the approximate 25th and 75th percentiles of network tests):

- 5G Ultra Wideband network:
- Mobile: typical download speeds of 90-170 Mbps with higher speeds and peaks over 1 Gbps in certain areas. Typical upload speeds of 15-30 Mbps with peak upload speeds over 100 Mbps. Uploads may be over 5G and 4G LTE in lower signal strength conditions.
- 5G Home Internet (Speeds and plans vary depending on address/location, equipment, and network connection. All plans include 5G/4G LTE backup with download speeds up to 70 Mbps. Uploads may be over 5G and 4G LTE in lower signal strength conditions. Depending on location, some customers may receive LTE Home with download speeds of 25-50 Mbps and upload speeds of 4-5 Mbps):
- 5G Home plan with up to 100 Mbps download speeds (on 5G Ultra Wideband mid-band): Typical download speeds of 50-85 Mbps. Upload speeds of 5-10 Mbps. Video streaming optimized up to 1080p.
- 5G Home plan with up to 300 Mbps download speeds (on 5G Ultra Wideband high-band): Typical download speeds of 85-300 Mbps. Upload speeds of 10-20 Mbps. Video streaming optimized up to 1080p.
- 5G Home Plus plan with up to 300 Mbps download speeds (on 5G Ultra Wideband mid-band): Typical download speeds of 85-250 Mbps. Upload speeds of 10-20 Mbps. Video streaming optimized up to 4K.
- 5G Home Plus plan with up to 1 Gig download speeds (on 5G Ultra Wideband high-band): Typical download speeds of 300-1000 Mbps. Upload speeds of 25-75 Mbps. Video streaming optimized up to 4K.
- 5G network: typical download speeds of 9-56 Mbps* and upload speeds of 2-13 Mbps.
- 4G LTE network:

- Mobile: typical download speeds of 9-56 Mbps* and upload speeds of 2-13 Mbps.
- LTE Home Internet: LTE Home and LTE Home Plus plans: download speeds of 25-50 Mbps. Upload speeds of 4-5 Mbps. Video streaming optimized up to 1080p.

And, Verizon notes that “if the cell site you are connected to begins experiencing high demand during the duration of your session, your 5G and 4G LTE data speeds may be slower than the other traffic’s.”

AT&T Internet Air is also noted on the AT&T website as only available in select areas and is described as a “viable” solution where AT&T’s “best-in-class” fiber home internet service is not available. In its own words, AT&T considers its Internet Air service to be second class. AT&T’s website also indicates that it may temporarily slow data speeds if the cellular network is busy and also for misuse, abnormal use, interference with their network or ability to provide quality service to others. See

<https://www.att.com/internet/what-is-internet-air/#genericlist>

Finally, locations shown on the FCC map as served by a fixed wireless provider (cellular or noncellular) overstate coverage based on examples received from residents and businesses requesting to subscribe to service and documentation provided by fixed wireless providers. OBD received this explanation from a fixed wireless provider with Minnesota facilities on how providers report their coverage to the FCC and the overstatement of coverage that results: “The FCC broadband mapping process for fixed wireless providers allows us to file using a propagation model. So (Company Name) applies the propagation model to each tower location and reports the locations we believe, based upon that model, can be reached with 25/3 or greater speeds. Those locations would be identified as served by fixed wireless in the FCC map. We have not gone to each location to determine whether each is actually serviceable, as we wait to do that until a potential customer pre-registers. In terms of a percentage of customers that pre-register that we are not able to ultimately serve, that number varies by tower. If you set aside the (Name of) Tower (which is being replaced this month with new equipment), to date we have found about 1/3 of the locations have some interference that creates serviceability issues. I totally understand your frustration with the fixed wireless map reporting. The propagation model reporting is definitely going to create a more imperfect output that the methodology applied to wireline services.”

Fixed wireless providers are in the best position to provide documentation via the challenge process, that they can in fact serve individual locations: as providers, they are an eligible challenger; and they have the knowledge (both in terms of how to participate in the process and holding the factual data about where their network can and cannot serve) and the financial incentive (proof that they can deploy service to a location eliminates that location from eligibility for BEAD funding) to proactively participate. Whereas, without a fixed wireless module, the burden of proof falls to thousands of individual residents and small businesses who are not eligible to participate in the challenge process, do not have the knowledge of where a provider’s network is capable of serving, cannot take a speed test if they cannot obtain service, and do not have a financial incentive for their location to be eligible or ineligible for BEAD funding—all they want is reliable broadband service i.e. Internet for All.

1.4.3. *Select if the Eligible Entity plans to use the BEAD Eligible Entity Planning Toolkit to identify existing federal enforceable commitments.*

Yes

No

1.4.4. *Describe the process that will be used to identify and remove locations subject to enforceable commitments.*

The broadband office will enumerate locations subject to enforceable commitments by using the BEAD Eligible Entity Planning Toolkit, and consult at least the following data sets:

1. The Broadband Funding Map published by the FCC pursuant to IIJA § 60105.
2. Data sets from state broadband deployment programs that rely on funds from the Capital Projects Fund and the State and Local Fiscal Recovery Funds administered by the U.S. Treasury.
3. Minnesota and local data collections of existing enforceable commitments.

The broadband office will make a best effort to create a list of Broadband Serviceable Locations (BSLs) subject to enforceable commitments based on state or local grants or loans. If necessary, the broadband office will translate polygons or other geographic designations (e.g., a county or utility district) describing the area to a list of Fabric locations. The broadband office will submit this list, in the format specified by the FCC Broadband Funding Map, to NTIA.

The broadband office will review its repository of existing state and local broadband grant programs to validate the upload and download speeds of existing binding agreements to deploy broadband infrastructure. In situations in which the Minnesota or local program did not specify broadband speeds, or when there was reason to believe a provider deployed higher broadband speeds than required, the broadband office will reach out to the provider to verify the deployment speeds of the binding commitment. The broadband office will document this process by requiring providers to sign a binding agreement certifying the actual broadband deployment speeds deployed.

The broadband office drew on these provider agreements, along with its existing database on state and local broadband funding programs' binding agreements, to determine the set of Minnesota and local enforceable commitments.

1.4.5. *List the federal, state, or territorial, and local programs that will be analyzed to remove enforceable commitments from the set of locations eligible for BEAD funding.*

See attachment on deduplication of funding programs.

Challenge Process Design

1.4.6 *Describe the plan to conduct an evidence-based, fair, transparent, and expeditious challenge process.*

The following response is a model response for the plan to conduct an evidence-based, fair, transparent, and expeditious challenge process. If the Eligible Entity plans to adopt the NTIA BEAD Model Challenge Process, it must copy and paste the Model text into the appropriate response textbox.

Based on the NTIA BEAD Challenge Process Policy Notice, as well as the broadband office understanding of the goals of the BEAD program, the proposal represents a transparent, fair, expeditious and evidence-based challenge process.

Permissible Challenges

The broadband office will only allow challenges on the following grounds:

- The identification of eligible community anchor institutions, as defined by the Eligible Entity,
- Community anchor institution BEAD eligibility determinations,
- BEAD eligibility determinations for existing broadband serviceable locations (BSLs),
- Enforceable commitments, or
- Planned service.

Permissible Challengers

During the BEAD Challenge Process, as required by NTIA, the broadband office will only allow challenges from nonprofit organizations, units of local and tribal governments, and broadband service providers.

Challenge Process Overview

The challenge process conducted by the broadband office will include four phases, spanning 90 calendar days:

1. **Publication of Eligible Locations:** Prior to beginning the Challenge Phase, the broadband office will publish the set of locations eligible for BEAD funding, which consists of the locations resulting from the activities outlined in Sections 5 and 6 of the NTIA BEAD Challenge Process Policy Notice (e.g., administering the deduplication of funding process). The office will also publish locations considered served, as they may be challenged. OBD anticipates this to occur in first quarter 2024, with specific date dependent on the approval of Volume 1 of the Initial Proposal by NTIA.
2. **Challenge Phase:** During the Challenge Phase, the challenger will submit the challenge through the broadband office challenge portal. This challenge will be visible to the service provider whose service availability and performance is being contested. The portal will notify the provider of the challenge through an automated email, which will include related information about timing for the provider's response. After this stage, the location will enter the "challenged" state.
 - a. **Minimum Level of Evidence Sufficient to Establish a Challenge:** The challenge portal will verify that the address provided can be found in the Fabric and is a BSL. The challenge portal will confirm that the challenged service is listed in the National Broadband Map and meets the definition of reliable broadband service. The challenge will confirm that the email address is reachable by sending a confirmation message to the listed contact email. For scanned images, the challenge portal will determine whether the quality is sufficient to enable optical character recognition (OCR). For availability challenges, the broadband office will manually verify that the evidence submitted falls within the categories stated in the NTIA BEAD Challenge Process Policy Notice and the document is unredacted and dated.

- b. Timeline:** Challengers will have 30 calendar days to submit a challenge from the time the initial list of unserved and underserved locations, community anchor institutions, and existing enforceable commitments are posted. This is anticipated to occur in first quarter 2024 dependent on when NTIA approves Volume 1 of the Initial Proposal.
3. **Rebuttal Phase:** Only the challenged service provider may rebut the reclassification of a location or area with evidence, causing the location or locations to enter the “disputed” state. If a challenge that meets the minimum level of evidence is not rebutted, the challenge is sustained. A provider may also agree with the challenge and thus transition the location to the “sustained” state. Providers must regularly check the challenge portal notification method (e.g., email) for notifications of submitted challenges.
- a. Timeline:** Providers will have 30 calendar days from notification of a challenge to provide rebuttal information to the broadband office. The rebuttal period begins once the provider is notified of the challenge, and thus may occur concurrently with the challenge phase. This is anticipated to occur in first quarter 2024 dependent on when NTIA approves Volume 1 of the Initial Proposal.
4. **Final Determination Phase:** During the Final Determination phase, the broadband office will make the final determination of the classification of the location, either declaring the challenge “sustained” or “rejected.”
- a. Timeline: Following intake of challenge rebuttals, the broadband office will make a final challenge determination within 30 calendar days of the challenge rebuttal.** Reviews will occur on a rolling basis, as challenges and rebuttals are received. Again, this is anticipated to occur in first quarter 2024 dependent on when NTIA approves Volume 1 of the Initial Proposal

Evidence & Review Approach

To ensure that each challenge is reviewed and adjudicated based on fairness for all participants and relevant stakeholders, the broadband office will review all applicable challenge and rebuttal information in detail without bias, before deciding to sustain or reject a challenge. The broadband office will document the standards of review to be applied in a Standard Operating Procedure and will require reviewers to document their justification for each determination. The broadband office plans to ensure reviewers have sufficient training to apply the standards of review uniformly to all challenges submitted. The broadband office will also require that all reviewers submit affidavits to ensure that there is no conflict of interest in making challenge determinations. Unless otherwise noted, “days” refers to calendar days.

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
A	Availability	The broadband service identified is not offered at the location,	<ul style="list-style-type: none"> • Screenshot of provider webpage. • A service request was refused within the last 180 days (e.g., an email 	<ul style="list-style-type: none"> • Provider shows that the location subscribes or has subscribed within the last 12 months, e.g., with a copy of a customer bill.

		including a unit of a multiple dwelling unit (MDU).	<p>or letter from provider).</p> <ul style="list-style-type: none"> • Lack of suitable infrastructure (e.g., no fiber on pole). • A letter or email dated within the last 365 days that a provider failed to schedule a service installation or offer an installation date within 10 business days of a request.² • A letter or email dated within the last 365 days indicating that a provider requested more than the standard installation fee to connect this location or that a Provider quoted an amount in excess of the provider’s standard installation charge in order to connect service at the location. 	<ul style="list-style-type: none"> • If the evidence was a screenshot and believed to be in error, a screenshot that shows service availability. • The provider submits evidence that service is now available as a standard installation, e.g., via a copy of an offer sent to the location.
S	Speed	The actual speed of the service tier falls below the unserved or underserved thresholds. ³	Speed test by subscriber, showing the insufficient speed and meeting the requirements for speed tests.	Provider has countervailing speed test evidence showing sufficient speed, e.g., from their own network management system. ⁴
L	Latency	The round-trip latency of the broadband service exceeds 100 ms ⁵ .	Speed test by subscriber, showing the excessive latency.	Provider has countervailing speed test evidence showing latency at or below 100 ms, e.g., from their own network management system or the

² A standard broadband installation is defined in the Broadband DATA Act (47 U.S.C. § 641(14)) as “[t]he initiation by a provider of fixed broadband internet access service [within 10 business days of a request] in an area in which the provider has not previously offered that service, with no charges or delays attributable to the extension of the network of the provider.”

³ The challenge portal has to gather information on the subscription tier of the household submitting the challenge. Only locations with a subscribed-to service of 100/20 Mbps or above can challenge locations as underserved, while only locations with a service of 25/3 Mbps or above can challenge locations as unserved. Speed challenges that do not change the status of a location do not need to be considered. For example, a challenge that shows that a location only receives 250 Mbps download speed even though the household has subscribed to gigabit service can be disregarded since it will not change the status of the location to unserved or underserved.

⁴ As described in the NOFO, a provider’s countervailing speed test should show that 80 percent of a provider’s download and upload measurements are at or above 80 percent of the required speed. See *Performance Measures Order*, 33 FCC Rcd at 6528, para. 51. See BEAD NOFO at 65, n. 80, Section IV.C.2.a.

⁵ *Performance Measures Order*, including provisions for providers in non-contiguous areas (§21).

				CAF performance measurements. ⁶
D	Data cap	The only service plans marketed to consumers impose an unreasonable capacity allowance (“data cap”) on the consumer. ⁷	<ul style="list-style-type: none"> • Screenshot of provider webpage. • Service description provided to consumer. 	Provider has terms of service showing that it does not impose an unreasonable data cap or offers another plan at the location without an unreasonable cap.
T	Technology	The technology indicated for this location is incorrect.	Manufacturer and model number of residential gateway (CPE) that demonstrates the service is delivered via a specific technology.	Provider has countervailing evidence from their network management system showing an appropriate residential gateway that matches the provided service.
B	Business service only	The location is residential, but the service offered is marketed or available only to businesses.	Screenshot of provider webpage.	Provider documentation that the service listed in the BDC is available at the location and is marketed to consumers.
E	Enforceable Commitment	The challenger has knowledge that broadband will be deployed at this location by the date established in the deployment obligation.	Enforceable commitment by service provider (e.g., authorization letter). In the case of Tribal Lands, the challenger must submit the requisite legally binding agreement between the relevant Tribal Government and the service provider for the location(s) at issue (see Section 6.2 above).	Documentation that the provider has defaulted on the commitment or is otherwise unable to meet the commitment (e.g., is no longer a going concern).
P	Planned service	The challenger has knowledge that broadband	<ul style="list-style-type: none"> • Construction contracts or similar evidence of on-going deployment, along with evidence that all necessary 	Documentation showing that the provider is no longer able to meet the commitment (e.g., is no longer a going concern) or

⁶ *Ibid.*

⁷ An unreasonable capacity allowance is defined as a data cap that falls below the monthly capacity allowance of 600 GB listed in the FCC 2023 Urban Rate Survey (FCC Public Notice DA 22-1338, December 16, 2022). Alternative plans without unreasonable data caps cannot be business-oriented plans not commonly sold to residential locations. A successful challenge may not change the status of the location to unserved or underserved if the same provider offers a service plan without an unreasonable capacity allowance or if another provider offers reliable broadband service at that location.

		will be deployed at this location by June 30, 2024, without an enforceable commitment or a provider is building out broadband offering performance beyond the requirements of an enforceable commitment.	permits have been applied for or obtained. <ul style="list-style-type: none"> Contracts or a similar binding agreement between the Eligible Entity and the provider committing that planned service will meet the BEAD definition and requirements of reliable and qualifying broadband even if not required by its funding source (<i>i.e.</i>, a separate federal grant program), including the expected date deployment will be completed, which must be on or before June 30, 2024. 	that the planned deployment does not meet the required technology or performance requirements.
N	Not part of enforceable commitment.	This location is in an area that is subject to an enforceable commitment to less than 100% of locations and the location is not covered by that commitment. (See BEAD NOFO at 36, n. 52.)	Declaration by service provider subject to the enforceable commitment.	
C	Location is a CAI	The location should be classified as a CAI.	Evidence that the location falls within the definitions of CAIs set by the Eligible Entity. ⁸	Evidence that the location does not fall within the definitions of CAIs set by the Eligible Entity or is no longer in operation.
R	Location is not a CAI	The location is currently labeled as a CAI but is a residence, a non-CAI business, or is	Evidence that the location does not fall within the definitions of CAIs set by the Eligible Entity or is no longer in operation.	Evidence that the location falls within the definitions of CAIs set by the Eligible Entity or is still operational.

⁸ For example, eligibility for FCC e-Rate or Rural Health Care program funding or registration with an appropriate regulatory agency may constitute such evidence, but the Eligible Entity may rely on other reliable evidence that is verifiable by a third party.

		no longer in operation.		
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Area and MDU Challenge

Minnesota will adopt the NTIA Area and MDU Challenge Modules.

The broadband office will administer area and MDU challenges for challenge types A, S, L, D, and T. An area challenge reverses the burden of proof for availability, speed, latency, data caps and technology if a defined number of challenges for a particular category, across all challengers, have been submitted for a provider. Thus, the provider receiving an area challenge or MDU must demonstrate that they are indeed meeting the availability, speed, latency, data cap and technology requirement, respectively, for all (served) locations within the area or all units within an MDU. The provider can use any of the permissible rebuttals listed above.

An area challenge is triggered if six (6) or more broadband serviceable locations using a particular technology and a single provider within a census block group are challenged.

An MDU challenge requires challenges by at least 3 units or 10% of the unit count listed in the Fabric within the same broadband serviceable location, whichever is larger.

Each type of challenge and each technology and provider is considered separately, i.e., an availability challenge (A) does not count towards reaching the area threshold for a speed (S) challenge. If a provider offers multiple technologies, such as DSL and fiber, each is treated separately since they are likely to have different availability and performance.

Area challenges for availability need to be rebutted with evidence that service is available for all BSL within the census block group, e.g., by network diagrams that show fiber or HFC infrastructure or customer subscribers. For fixed wireless service, the challenge system will offer representative random, sample of the area in contention, but no fewer than 10, where the provider has to demonstrate service availability and speed (e.g., with a mobile test unit).

Speed Test Requirements

OBD will accept speed tests as evidence for substantiating challenges and rebuttals. Each speed test consists of three measurements, taken on different days. Speed tests cannot predate the beginning of the challenge period by more than 60 calendar days.

Speed tests can take four forms:

1. A reading of the physical line speed provided by the residential gateway, (i.e., DSL modem, cable modem (for HFC), or ONT (for FTTH), or fixed wireless subscriber module.
2. A reading of the speed test available from within the residential gateway web interface.
3. A reading of the speed test found on the service provider’s web page.
4. A speed test performed on a laptop or desktop computer within immediate proximity of the residential gateway, using a [commonly used speed test application | a speed test application

approved by the Eligible Entity | speed test application from the list of applications approved by NTIA | a peer-reviewed speed test developed by a research group.]]

Each speed test measurement must include:

- The time and date the speed test was conducted.
- The provider-assigned internet protocol (IP) address, either version 4 or version 6, identifying the residential gateway conducting the test.

Each group of three speed tests must include:

- The name and street address of the customer conducting the speed test.
- A certification of the speed tier the customer subscribes to (e.g., a copy of the customer's last invoice).
- An agreement, using an online form provided by the Eligible Entity, that grants access to these information elements to the Eligible Entity, any contractors supporting the challenge process, and the service provider.

The IP address and the subscriber's name and street address are considered personally identifiable information (PII) and thus are not disclosed to the public (e.g., as part of a challenge dashboard or open data portal).

Each location must conduct three speed tests on three different days; the days do not have to be adjacent. The median of the three tests (i.e., the second highest (or lowest) speed) is used to trigger a speed-based (S) challenge, for either upload or download. For example, if a location claims a broadband speed of 100 Mbps/25 Mbps and the three speed tests result in download speed measurements of 105, 102 and 98 Mbps, and three upload speed measurements of 18, 26 and 17 Mbps, the speed tests qualify the location for a challenge, since the measured upload speed marks the location as underserved.

Speed tests may be conducted by subscribers, but speed test challenges must be gathered and submitted by units of local government, nonprofit organizations, or a broadband service provider.

Subscribers submitting a speed test must indicate the speed tier they are subscribing to. Since speed tests can only be used to change the status of locations from "served" to "underserved", only speed tests of subscribers that subscribe to tiers at 100/20 Mbps and above are considered. If the household subscribes to a speed tier of 100/20 Mbps or higher and the speed test yields a speed below 100/20 Mbps, this service offering will not count towards the location being considered served. However, even if a particular service offering is not meeting the speed threshold, the eligibility status of the location may not change. For example, if a location is served by 100 Mbps licensed fixed wireless and 500 Mbps fiber, conducting a speed test on the fixed wireless network that shows an effective speed of 70 Mbps does not change the status of the location from served to underserved.

A service provider may rebut an area speed test challenge by providing speed tests, in the manner described above, for at least 10% of the customers in the challenged area.

The customers must be randomly selected. Providers must apply the 80/80 rule⁹, i.e., 80% of these locations must experience a speed that equals or exceeds 80% of the speed threshold. For example, 80% of these locations must have a download speed of at least 20 Mbps (that is, 80% of 25 Mbps) and

⁹ The 80/80 threshold is drawn from the requirements in the CAF-II and RDOF measurements. See BEAD NOFO at 65, n. 80, Section IV.C.2.a.

an upload speed of at least 2.4 Mbps to meet the 25/3 Mbps threshold and must have a download speed of at least 80 Mbps and an upload speed of 16 Mbps to be meet the 100/20 Mbps speed tier. Only speed tests conducted by the provider between the hours of 7 pm and 11 pm local time will be considered as evidence for a challenge rebuttal.

Transparency Plan

To ensure that the challenge process is transparent and open to public and stakeholder scrutiny, the broadband office will, upon approval from NTIA, publicly post an overview of the challenge process phases, challenge timelines, and instructions on how to submit and rebut a challenge. This documentation will be posted publicly for at least a week prior to opening the challenge submission window. The broadband office also plans to actively inform all units of local government of its challenge process and set up regular touchpoints to address any comments, questions, or concerns from local governments, nonprofit organizations, and internet service providers. OBD will issue email notifications to those entities and individuals signed up for broadband alerts with the Office and will issue a press release. OBD will also notify the Minnesota Association of Townships, the Association of Minnesota Counties, the League of Minnesota Cities, the Minnesota Cable Communications Association, the Minnesota Telecom Association, OBD's contact list of ISPs operating in the state, and any other individual or entity that indicates during the public comment process that they wish to be notified of the challenge process details and timeline. Relevant stakeholders can sign up on the broadband office website <https://mn.gov/deed/programs-services/broadband/contact/> for challenge process updates and newsletters. They can engage with the broadband office by a designated email address at deed.broadband@state.mn.us. Providers will be notified of challenges automatically via the challenge portal system.

Beyond actively engaging relevant stakeholders, the broadband office will also post all submitted challenges and rebuttals before final challenge determinations are made, including:

- the provider, nonprofit, or unit of local government that submitted the challenge,
- the census block group containing the challenged broadband serviceable location,
- the provider being challenged,
- the type of challenge (e.g., availability or speed), and
- a summary of the challenge, including whether a provider submitted a rebuttal.

The broadband office will safeguard personally identifiable information (PII) consistent with applicable federal and state law, including Minnesota Statutes, Chapter 13 (the Minnesota Government Data Practices Act) and Minnesota Statutes, Chapter 14. The broadband office will not publicly post any personally identifiable information (PII) or proprietary information, including subscriber names, street addresses and customer IP addresses. To ensure all PII is safeguarded, the broadband office will review the basis and summary of all challenges and rebuttals to ensure PII is removed prior to posting them on the website. Additionally, guidance will be provided to all challengers as to which information they submit may be posted publicly or otherwise disclosed to the public under applicable federal and state law.

The broadband office will treat information submitted by an existing broadband service provider designated as proprietary and confidential consistent with applicable federal and state law. If any of these responses do contain information or data that the submitter deems to be confidential commercial information that should be exempt from disclosure under state open records laws or is protected under applicable state privacy laws, that information should be identified as privileged or confidential. Additionally, guidance will be provided to all broadband service providers as to which

information they submit may be posted publicly or otherwise disclosed to the public under applicable federal and state law.

The broadband office follows applicable agency and statewide policies regarding safeguarding data.

1.4.7. *If the Eligible Entity is not using the NTIA BEAD Model Challenge Process, outline the proposed sources and requirements that will be considered acceptable evidence.*

N/A