



September 10, 2024

Honorable Alan Davidson, Administrator
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW
Washington, DC 20230

Re: Notice and Request for Comment on the Proposed BEAD Alternative Broadband Technology Guidance

Dear Administrator Davidson,

The Communications Workers of America (CWA) respectfully submits these comments in response to the National Telecommunications and Information Administration's Notice and Request for Comment regarding the proposed BEAD alternative broadband technology guidance.

CWA represents workers in private and public sector employment who work in telecommunications and information technology, news media, broadcast and cable television, education, health care, public service, manufacturing, and other fields. This includes more than 150,000 employees in wireline and wireless telecommunications. CWA members are highly-trained career technicians and service representatives who build and service our telecommunications networks. They are also consumers who rely on quality internet service and citizens who demand sensible and equitable telecommunications policy in alliance with other stakeholders. Over the past two decades, CWA has consistently supported policies that accelerate the deployment of affordable broadband to all.

Since the passage of the Infrastructure Investment and Jobs Act, CWA's Broadband Brigade members around the country have been working with state and local officials to ensure that this historic investment of public funds is used to deploy the most efficient, resilient, and sustainable technology and that the work is being done by experienced, well-trained union members.

- I. The BEAD program is better served without the framework proposed in the draft guidance.

It is widely recognized that the BEAD program funds are insufficient to provide high quality broadband that meets the BEAD standards to every unserved location. While the statute does not mandate one hundred percent coverage, NTIA has identified this as a goal. Unfortunately, providers of inferior technologies are now seeking to misuse this implied requirement to secure a windfall that could substantially undercut the actual mandates of the BEAD program to support

“deploying broadband, closing the digital divide, and enhancing economic growth and job creation.”¹

The draft guidance is thoughtful in its approach to the complex issue of incorporating alternative technologies into the BEAD funding framework; however, it leans too far towards special treatment for satellite technology – specifically the monopoly provider of low earth orbit satellite, Starlink – which contradicts the BEAD program’s technology agnosticism. The proposed protocols are also unnecessary to facilitate alternative technologies playing a role in BEAD, considering that the Notice of Funding Opportunity already provides for the use of alternative technologies where necessary through the Extremely High Cost Threshold process.²

Instead of opening the door for use of an increased share of BEAD funds to subsidize already-available satellite service, NTIA should prioritize limited funds for fiber, first and foremost, and other incremental solutions that bring fiber closer to unserved locations. This approach is most likely to provide high quality broadband service to rural communities cost-effectively for the long-term. For the remote locations that cannot be reached with fiber, fixed wireless, or another terrestrial option, Starlink is most likely already available and therefore those locations should be deemed served for the purposes of BEAD.

Longer term, federal and state governments should use future funding to support universal access, both to extend deployment of fiber to locations not reached by BEAD projects and to help residents in extremely remote locations afford access to satellite-based broadband if it is the only feasible option available.

II. All BEAD requirements should apply to alternative technology providers.

CWA is concerned that under the draft guidance, alternative technology providers would not be subject to all the same accountability measures as other providers under BEAD and that certain requirements are implied but not stated.

By giving states the option to hold an informal second challenge process for alternative technologies and conduct competitive bidding only among alternative technology providers, NTIA is significantly changing the terms of the BEAD program. This could lead to scenarios where the intent of the BEAD program is undermined because a higher than necessary portion of the allocated funds goes to technologies that do not qualify as providing reliable broadband service. If the guidance is adopted, the process described in section 4.1 should require that all providers be able to participate in subsequent bidding rounds. This approach would ensure states are motivated to engage with all providers on potential strategies for cost-effective methods to serve locations that do not receive other bids.

In section 4.3 of the draft guidance, NTIA lists the obligations articulated in the BEAD NOFO for subgrantees. While the guidance implies that this list is not exhaustive, it is instructive of what states should prioritize. CWA strongly recommends also including the NOFO requirements

¹ 47 USC 1702(e)(3)(A)(i), Grants for broadband deployment.

² BEAD, Notice of Funding Opportunity, pages 38-39.

related to fair labor practices in this list so that they are understood as core requirements of the BEAD program.

- III. Broadband provided by low earth orbit satellite is unlikely to meet the BEAD requirements and should not get special treatment.

Low earth orbit satellite (LEO) service is unlikely to meet the BEAD program's technical requirements for reliable broadband service. A Michigan broadband office representative told CWA in February that no current Starlink product met BEAD requirements. Industry experts have written that Starlink continues to struggle to meet BEAD requirements for upload speeds.³ The company itself reports average upload speeds of 5 to 20 Mbps.⁴ A recent NetForecast analysis found that the median latency of LEO was 94 ms and its 99th percentile latency was approximately 180 ms. The authors describe the 99th percentile as "a value that reflects performance variability and is often considered a more accurate metric than the median because it takes outliers into account."⁵ While Starlink's service quality is improving, it still faces many technical and regulatory challenges.⁶

Aside from its potential technical limitations, LEO should not get special treatment in the form of supplemental funding. The draft guidance contemplates extra "LEO Capacity Subgrants" to hold slots on Starlink's network, but it does not explain why only LEO providers should receive these additional payments. If a fixed wireless provider has already built a network that can cover 60 percent of homes in a project area with reliable broadband service and the BEAD program funds it to expand the network to be able to serve the remaining 40 percent, there is no guarantee of uptake, and the wireless provider is taking a risk that it will make a significant investment for unused slots. LEO should not benefit from special set asides that are unavailable to other types of providers, whether cost-based or not.

LEO is likely already being offered in many BEAD eligible areas. If LEO is already a viable solution for those locations, BEAD should not fund the expansion of Starlink's network. In the case that Starlink submits to a state that its service is not available under Case 2 described in section 3.2, it should be required to prove that the service is truly unavailable and not just anticipated to be unavailable if all unserved (and underserved) locations subscribed.

CWA is aware that Starlink has actively courted states and quoted specific dollar figures for BEAD that suggest significant deployment and CPE costs. NTIA and states should avoid giving

³ Doug Dawson, *BEAD to Allow Alternative Technologies, POTS & PANS* (September 4, 2024), <https://potsandpansbyccg.com/2024/09/04/bead-to-now-allow-alternate-technologies/#respond..>

⁴ Starlink Specifications, <https://www.starlink.com/legal/documents/DOC-1400-28829-70>.

⁵ 5G Fixed Wireless vs LEO vs Cable Home Internet Performance Comparison, NetForecast (September 2023).

⁶ See e.g., EchoStar Exec Slams Latest SpaceX 12 GHz Filing, *Communications Daily* (September 6, 2024), https://communicationsdaily.com/article/view?search_id=950650&p=1&id=2079791&BC=bc_66df4b76eb5ed; Aneli Bongers & José L. Torres, Low-Earth Orbit Faces a Spiraling Debris Threat, *Scientific American* (April 22, 2024), <https://www.scientificamerican.com/article/low-earth-orbit-faces-a-spiraling-debris-threat/>.

special treatment to the monopoly provider of LEO services, a company that lacks a long-term track record of scaled service and resists transparency in dealings with governments.⁷

States like Michigan and Washington have recognized the importance of pursuing non-satellite options wherever possible. The Washington Initial Proposal gives fewer points for satellite technology than for fixed wireless.⁸ Along similar lines, the Michigan broadband office told CWA in June of 2024:

We take the same position as the BEAD Program in general that satellite internet is an alternative technology and will only be considered as part of BEAD if fiber, cable, or licensed fixed wireless, (or other reliable broadband technologies) are infeasible to reach a particular location or locations.⁹

The idea of “infeasibility” is different from “not cost effective in the short term” and reflects a better approach to ensuring high quality broadband is delivered to every possible location. Many locations that BEAD funding won’t be adequate to reach with fiber could be served with fixed wireless or other creative methods like microwave or revamped copper. These methods support a long-term path to achieve fiber-to-the-premises because they create the incentive to build fiber to a point of presence or node closer to the premises.

- IV. States are left on their own to handle complex oversight and should receive more assistance from NTIA.

This new guidance requires extensive technical work of states that opt into it, and NTIA should offer additional support if it moves forward with the guidance. For example, NTIA calls on Eligible Entities to “carefully design a process that best reflects unique characteristics of Alternative Technology projects.”¹⁰ CWA questions the effectiveness of asking every Eligible Entity to design this process independently without templates or other tools that take advantage of federal expertise. Additionally, the cost verification process described in section 5 aimed at limiting reimbursements to actual costs will require extensive work from states. NTIA should clarify what technical assistance might be available to assist states in that work.

- V. NTIA should use a higher speed threshold for ensuring adequate service is available to all locations from LEO.

In response to question number three in Appendix A, CWA suggests that the RDOF benchmarks may be outdated and that a minimum proxy for adequate bandwidth would be at least 12 Mbps of capacity available to every BSL. If a standard like this is adopted, it creates the

⁷ See, for example, [Warren Raises National Security Concerns, Calls on DoD to Hold SpaceX Accountable for Use of Starlink by Russia, Other Sanctioned U.S. Adversaries](#), Senator Elizabeth Warren (May 6, 2024).

⁸ See *Other Last-Mile Broadband Deployment Projects Scoring Criteria*, at 143, Washington State Department of Commerce Initial Proposal Volume II, <https://deptofcommerce.app.box.com/s/hnu4g9c0zom4y5sh55qd3t9ijzf0ym9t>.

⁹ Email from MiHi office to CWA (June 4, 2024).

¹⁰ Draft guidance Section 5, page 16.

challenge of verifying that these conditions are being met, which would require providers to report data in a manner that can be audited and spot checked.

VI. Conclusion

CWA urges NTIA not to adopt the proposed guidance because it risks undermining the purposes of the BEAD program. If NTIA adopts the guidance, CWA urges modifications to eliminate special treatment for one technology, ensure all providers can participate in any additional bidding rounds, and offer states greater clarity and support.

Thank you for your consideration.

Sincerely,

Nell Geiser
Director of Research
Communications Workers of America