Information Technology and Innovation Foundation
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Comments of ITIF
Before the
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, D.C. 20230

In the Matter of:	)	
	)	Docket No. 220105-0002
Infrastructure Investment and Jobs Act Implementation	)	

February 4, 2022

INTRODUCTION AND SUMMARY

The Information Technology and Innovation Foundation (ITIF)[1] appreciates this opportunity to comment on how best to implement the recently passed bipartisan Infrastructure Law (BIL). This comment is regarding the $48 billion to be administered by the National Telecommunications and Information Administration (NTIA) through the Broadband Equity, Access and Deployment (BEAD) Program; the Middle Mile Program; and the Digital Equity Planning Program.

The legislation provides an abundance of funds to promote broadband access and adoption, which should be enough to eliminate the geographic digital divide, but only if spent wisely and constructively. If the funding is spent to ensure wider coverage of broadband to unserved areas, we believe the nation can once and for all eliminate the geographic digital divide (with low-earth-orbit satellite broadband serving the rest). If instead funds are spent to promote competition through overbuilding, as some advocates desire, this "once" (not once

[1] Founded in 2006, ITIF is a 501(c)(3) nonprofit, nonpartisan research and educational institute—a think tank—focusing on a host of critical issues at the intersection of technological innovation and public policy. Its mission is to formulate and promote policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress.

in a lifetime)[2] opportunity will have been squandered. As such, the stakes are incredibly high and NTIA cannot afford to get this wrong. Doing so will consign millions of households to being on the other side of the digital divide, while doing fundamental harm to the trust in government to solve key pressing problems.

To facilitate effective use of funds, NTIA should ensure a thoughtful initial allocation of administrative resources and responsibilities by creating incentives for capable deployment that prioritizes unserved areas and uses diverse technologies.

FUNDING SHOULD BE TARGETED TO UNSERVED AREAS

For this unprecedented one-time infusion of funds to be used to its maximum potential, NTIA and the states should prioritize proposals that address the most urgent needs. Above all, priority should be granted to proposals that target genuinely unserved areas lacking broadband access entirely; only when most of these areas (except for the most high-cost among them) are connected should the focus then shift to improving network speeds for underserved areas and eligible community anchor institutions.

NTIA should not allow any funds to be used to "overbuild" areas that already have functioning broadband networks until the lion's share of truly unserved areas is served. (The exception would be the most remote and expensive to serve final share of unserved households, which ultimately will need to rely on satellite broadband). It would be a tragedy and a waste if BIL funds were to run out without giving almost all Americans at least one fixed option for Internet access.

States have other levers to promote lower broadband costs, rather than artificially and wastefully subsidizing overbuilding. NTIA should encourage states to adopt genuinely cost-saving measures such as dig-once policies, streamlined access to public rights of way and utility poles, and cost-based fees.[3] This approach will ensure that the federal funds are used in a way that complements other existing broadband programs, rather than funding duplicative networks in some areas while leaving others no better off (Question 4).

FUNDING SHOULD BE TECHNOLOGY-NEUTRAL

All means of serving unconnected Americans should be considered equally when assessing plans to connect users in unserved areas. Where feasible, fiber has advantages, but many other technologies, including cable, fixed wireless and satellite, may be more appropriate. Prioritizing one technology over another will do nothing

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[2] Cat Zakrzewski and Chris Alcantara, "Biden's ambitious broadband funding has a key impediment: an outdated map of who needs it," (Washington Post, Dec. 14, 2021), https://www.washingtonpost.com/technology/2021/12/14/bidens-ambitious-broadband-funding-has-key-impediment-an-outdated-map-who-needs-it/.

[3] *See* Doug Brake, "A Policymaker's Guide to Rural Broadband Infrastructure," (ITIF, April 2017), https://itif.org/publications/2017/04/10/policymakers-guide-rural-broadband-infrastructure

but ensure that serving the most remote Americans remains prohibitively expensive. The focus should be on network performance, and the achievement of that should be left to providers. Suggesting that fiber is inherently desirable is wrong and will reduce program benefits.

In evaluating how to define adequate service, NTIA should consider the ways Americans actually use broadband and take the broadest possible approach to meeting those needs. It should not favor any particular technology or transmission medium, either directly or through unrealistic and arbitrary metrics, such as "future-proofing" or symmetrical speeds. A speed threshold of 100 megabits per second download and 10 megabits per second upload would be a reasonable benchmark that far exceeds the minimum requirements for even the most bandwidth-heavy applications like live two-way video calls, while not conflating unserved Americans' legitimate need for working broadband with artificially inflated standards that the vast majority of Americans will not notice or use.[4] This is especially the case where faster speed networks cost more. In this case, the priority should not be on maximizing speeds, but on maximizing coverage.

As ITIF has previously argued, "future-proof" broadband is a misnomer. Unlike a government-funded road, which can function after the initial construction with only basic maintenance, broadband networks require constant upkeep and upgrades to keep up with technological advances in a highly dynamic field. Further, economic analysis has shown that the benefit society accrues from getting more users online far outweighs that realized from marginally increasing the speeds of existing users past a certain point.[5] To be sure, some day there might in fact be widespread use of applications that depend on superfast speeds, but NTIA should not direct limited resources in pursuit of speculative future demands while some communities remain unserved entirely.

Justifications for symmetrical speed requirements are similarly lacking. On the whole, Internet users download far more content than they upload, a reality that will likely not change anytime soon so long as the volume of downloadable content (the whole of the Internet) exceeds what any single user might create in his or her lifetime.[6] There is simply no need to create sky-high standards that the average user will never have a chance to use. An arbitrary requirement for symmetrical speeds would crowd out otherwise viable, low-cost

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[4] *See* Zoom's support page, which explains that Zoom requires only a maximum of 3.8 Mbps for HD calls. https://support.zoom.us/hc/en-us/articles/201362023-Zoom-system-requirements-Windows-macOS-Linux

[5] *See* Doug Brake and Alexandra Bruer, "Broadband Myth Series: Is It a National Imperative to Achieve Ultra-Fast Download Speeds?," (ITIF, November 2020), https://itif.org/publications/2020/11/16/broadband-myths-it-national-imperative-achieve-ultra-fast-download-speeds

[6] *See* Doug Brake and Alexandra Bruer, "Broadband Myth Series: Do We Need Symmetrical Upload and Download Speeds?," (ITIF, May 2021), https://itif.org/publications/2021/05/12/broadband-myth-series-do-we-need-symmetrical-upload-and-download-speeds

technologies that could provide adequate service in places that symmetrical speeds are unable to reach economically even with subsidies. Those who push for symmetrical, super-fast networks (e.g., gigabit speeds) do so as a way to promote government-owned networks, because they know that private providers will usually not waste money on network upgrades that very few if any of their customers would actually want.

NTIA SHOULD CREATE AN ALLOCATION PROCESS THAT INCENTIVIZES EFFICIENCY AND ACCOUNTABILITY

While NTIA should seek ambitious proposals from many broadband providers, it must employ robust oversight mechanisms to ensure that grant recipients follow through on their commitments. These should include ongoing progress reports throughout construction, not just at the end. There should also be a challenge process that allows incumbent providers to object when a proposal would result in overbuilding. In addition to these more traditional accountability processes, successful project completion can be incentivized in two additional ways.

Currently, grant money is to be allocated through phases, with the final amount released upon approval of the finalized plans.[7] Instead, NTIA should consider not releasing the majority of funding until the presentation of the finished and working project. Instituting this protection would prevent overambitious plans from squandering limited funds and not serving the communities in need of broadband. Applicants for the funds, not taxpayers, should bear the risk of not living up to the promises in their applications.

This proposal would not appreciably limit access to funds for applicants who have a sound business plan. An applicant with a cogent plan to deploy a broadband network will be able to get credit to fund its initial build since federal or state funds would be guaranteed if the project succeeds. If a provider is not deemed creditworthy by the financial sector, that is strong evidence that its proposal is not the most efficient use of BIL funds.

NTIA should also encourage or require the distribution of funds to subgrantees through reverse auctions (Question 6). Reverse auction mechanisms are the most economically sound method of distributing subsidies,[8] and their worth has been demonstrated by the successful Universal Service Fund programs, run by the FCC. Distributing grants through reverse auctions would harness the information-producing capabilities of markets to locate the most productive use of funds while also freeing up states' resources for administrative

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[7] *See* the text of the Infrastructure Investment and Jobs Act, Nov. 2021. https://www.congress.gov/bill/117th-congress/house-bill/3684/text

[8] *See* Baker et al., "Comments of 71 concerned Economists: Using Procurement Auctions to Allocate Broadband Stimulus Grants," (2009). *Congressional and Other Testimony.* 16. https://digitalcommons.wcl.american.edu/pub_disc_cong/16/

responsibilities such as ensuring that projects are designed using reliable maps that correctly identify unserved areas. A grant allocation process through proposal reviewal tends to be cumbersome, time-consuming, and subjective, leading to suboptimal allocation of funds as money is granted based on inconsistent or irrelevant criteria. In contrast, a reverse auction would bring out the most viable contenders and empower them to realistically assess their own needs and determine the necessary grant amount. Auctions can be designed to target the specific cost and performance trade-offs necessary for individual communities.

NTIA SHOULD LOOK TO EXPERIENCED PROVIDERS WITH ADEQUATE CAPITAL AND ECONOMIES OF SCALE

Like technologies, NTIA should consider all types of providers equally and encourage states to do the same. Grants should be allocated with the sole goal of connecting all Americans, and care should be taken to ensure that all grant money is distributed in a genuinely technologically neutral and provider-neutral manner. NTIA must make the most effective use of the funds allocated by Congress to serve unserved consumers as efficiently and permanently as possible. Achieving this goal means rejecting favoritism toward government-run networks or undercapitalized small businesses (and coops) when experienced broadband providers have a better track record of broad deployment, high-quality service and metrics of technical progress.

Unlike traditionally static utilities, the broadband market has shown time and again that when it comes to effective, cost-efficient service, private, and often large, providers have the edge. Such companies generally have both the resources and experience necessary to provide adequate service for communities with diverse needs. They are also adaptable and contribute the bulk of standards-setting and R&D necessary to keep the United States at the forefront of technological developments.

In the hardest-to-reach areas, the issue is not generally an unwillingness to connect on the part of the provider, but a lack of economic viability. This is a problem that municipal providers have historically amplified by cherry-picking low-cost areas to serve when they are financially viable at all and cross-subsidizing networks through government general funds.[9] In addition, regional providers are limited to providing service within their jurisdictions.[10] If used correctly, BIL funding can provide the financial buffer necessary to

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[9] *See* Doug Brake and Alexandra Bruer, "Broadband Myth Series: Does Municipal Broadband Scale Well to Fit U.S. Broadband Needs?," (ITIF, June 2021), https://itif.org/publications/2021/06/24/broadband-myths-does-municipal-broadband-scale-well-fit-us-broadband-needs. *See also*, Christopher S. Yoo and Timothy Pfenninger, "Municipal Fiber in the United States: An Empirical Assessment of Financial Performance," (University of Pennsylvania Law School's Center for Technology, Innovation and Competition, 2017), https://www.law.upenn.edu/live/files/6611-report-municipal-fiber-in-the-united-states-an.

[10] *Id.*

connect the most financially unfeasible areas through whichever type of provider is best equipped to offer service.

Finally, as part of that, NTIA should ensure that states do not artificially privilege government-owned networks that show better cost and price performance solely on the basis of subsidies, whether that is reduced poll attachment and registration fees, reduced taxes and franchise fees, or direct subsidies. There is nothing wrong with local governments subsidizing network builds, but if they are to do that, the subsidy should be carrier-neutral and available to the highest quality bidder, not just the local government itself.

CONCLUSION

The enormity of funds available through the BIL does not diminish the need for efficient and targeted allocation. If these resources are used in the best possible way, we can make real strides in connecting all Americans to serviceable Internet; if not, we risk squandering this opportunity.

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