



Comments on the Infrastructure Investment and Jobs Act Implementation

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Introduction

Americans rely on broadband now more than ever, and Congress has taken that fact to heart. In the Infrastructure Investment and Jobs Act (IIJA), Congress allocated around \$65 billion to connect Americans to broadband internet and gave the National Telecommunications and Information Administration (NTIA) a leadership role in guiding states on how to spend the funds.^[1] Now, it will be up to the agency and the states to ensure that congressional goals become a reality.

This Request for Comment^[2] raises important questions about the appropriate path forward, and these comments aim to guide the NTIA to maximize the efficiency of each tax dollar spent. America can't afford to waste funds that overbuild networks while Americans without access get left further behind. These comments focus on three main principles: 1.) The NTIA should first and foremost focus on truly unserved communities; 2.) The NTIA should continue to prioritize the market-based approach to broadband deployment; and 3.) The NTIA should work with states to minimize barriers to deployment of private networks. These principles will ensure that we close the digital divide while maximizing private investment into existing broadband networks.

The NTIA Should Take Steps to Ensure That Unserved Areas Get Connected Above Other Considerations

As the NTIA begins to work with states to develop plans for distributing funds, the principle of connecting unserved communities should always guide the decision-making process.

Funding Should Target Unserved Areas

We may never see universal broadband adoption,^[3] but for many communities across the country, the option doesn't even exist.^[4] Infrastructure deployment requires significant resource investment, even more so to connect difficult-to-reach communities.^[5] Worse, for many of these communities, sparse populations present little opportunity for a return on that investment for private broadband providers.^[6] As a result, broadband providers lack a strong business case to connect these communities to their networks. Congress has made the policy determination that this is itself a market failure, and therefore the focus of any subsidy program for deployment should be directed toward these areas.

As a Deloitte report indicates, the most significant benefit from broadband investment comes from increased penetration and availability.^[7] Even a rudimentary connection can achieve many of the needs of consumers to participate in the modern economy. Email, for example, has become one of the most common tools of communication and many employers only accept applications online. While a 25/3 Mbps connection may not provide the same capabilities as higher speed thresholds, especially in households with more than one user,

policymakers shouldn't discount the benefits of getting the last bastion of unconnected Americans online.[8]

While the IJA explicitly considers underserved areas as a potential target for funds after unserved areas are connected, the NTIA should emphasize the importance of connecting truly unserved areas as states begin to develop their plans. Improving speeds for users does open additional capabilities and economic opportunities for communities, but these benefits pale in comparison to increasing penetration and access: While speed helps, basic connectivity drives the most change.[9]

This could also mean thinking holistically about targeting underserved areas when unserved areas are connected. Many unserved areas are bordered by underserved areas, and to the extent that it makes sense to target both at once, the NTIA should streamline the process to encourage deployment and maximize the value of each dollar spent. Again, however, this cannot come at the expense of the unserved communities or done in a pretextual manner which uses one unserved household to overbuild a network already served by robust private providers.

States Need Robust Challenge Processes to Ensure Areas Receiving Funds Are Truly Unconnected

The NTIA rightly explains its interest in implementing the programs in a way that promotes the efficient use of federal funds and asks what kind of technical assistance would be most valuable to states as they develop their proposals.[10] One key challenge of this process will be identifying which areas are unserved and underserved for purposes of the statute. In addition to the FCC's efforts to update existing maps, many states have developed their own maps[11] and a variety of different sources can be used to develop a picture of where broadband is available. [12] These maps, however, all fail to give a perfect picture of deployment and availability, and inevitably some areas will be falsely designated as unserved.

As the NTIA offers its technical assistance to states, it should focus on developing robust and efficient challenge processes for this effort, as required by the IJA, to allow providers to assert that an area designated as unserved or underserved does, in fact, have broadband offering. First, this will ensure that taxpayer funds do not go toward overbuilding networks in areas with existing broadband service. Second, and perhaps even more important, a robust challenge process could also supplement existing maps and data to convey more information to regulators about the state of deployment. In other words, the challenge process can help supplement efforts to map broadband deployments used by other state programs and services. By focusing on this challenge process, the NTIA can guide states on technical processes that collect and share data among relevant parties quickly and efficiently.

Areas With Existing Deployment Commitments Should Be Considered Served

The NTIA also asks how it should treat prior buildout commitments not yet reflected in FCC maps because the projects are not yet complete.[13] Again, the purpose of this funding is to ensure American's have access to broadband connectivity, not overbuild existing networks or subsidize individual competitors. Many different factors can cause delays to deployment, and even the most streamlined deployments do not happen overnight. [14] While regulators should oversee those commitments to deploy and ensure providers follow through, the NTIA should not treat those areas as unserved or underserved for the purpose of receiving additional federal funding. This would risk over-building communities that do not have a strong business case for even one broadband network, let alone several.[15]

The NTIA Should Continue to Prioritize the Market-based Approach to Broadband Deployment

The United States has largely taken a market-based approach to broadband deployment, which allows different technologies and services to develop.^[16] This, in turn, provides consumers with a variety of choices to get connected in the manner that best suits their needs. Congress designed these programs to address gaps in deployment, but the underlying market-based principles should still guide the distribution of funding.

The NTIA Should Not Prioritize Government-Owned Networks

The IIJA requires that state programs include a wide range of potential providers and projects. Most notably, in the Broadband Equity, Access and Deployment (BEAD) Program, eligible entities include electric utilities and municipalities, meaning states cannot categorically refuse participation of such entities in their programs.^[17] That doesn't mean, however, that these entities should receive any priority in the distribution of funding.

Many see government-owned networks (GONs) as an ideal provider for broadband services because they can leverage existing electric utility infrastructure to deploy broadband networks, and without same profit maximization incentives of a private company.^[18] As a result, proponents of GONs argue that these providers can offer better service at lower prices for consumers. Considering the NTIA also asks about making broadband more affordable throughout the notice, there may be some who think these networks should be on equal footing, or even favored, with private companies. This would be a mistake.

GONs come with many problems, and may cause significant harm to the communities they seek to support. First, when the GON is also the local electric utility, it can leverage the captive ratepayers on the electric utility side of the business to support lower-cost offerings on the broadband side.^[19] In theory, the prices for broadband may be cheaper than private offerings, but consumers end up paying for the additional costs through their electric bills. As it turns out, there exists an equilibrium number of providers in markets, and when overbuilding with GONs, localities may end up distorting this balance and cause ripples in the marketplace.^[20]

Second, investment in broadband networks is inherently risky, and networks require constant investment to maintain and upgrade services for consumers. Too often, these GON programs invest significant resources into the initial deployment, but fail to consider the full range of running costs. Paired with a lack of expertise on how to run a broadband business, these networks end up becoming major burdens on the local taxpayers.^[21]

Finally, for private providers who could theoretically expand an existing network into a given community or deploy an entirely new service, the existence of a GON in the community already targeting the most profitable areas hurts the business case for deployment. Further, when the GON also owns the utility poles needed for deployment, private providers may find a lack of access as a major barrier to deployment. Because the FCC's rules on pole attachments only extend to investor-owned poles, there is little recourse for the private providers.^[22]

The NTIA must ensure it maximizes the value of each subsidy dollar spent to get unserved Americans connected to broadband, and private providers remain the best option in most cases. As the NTIA considers and guides different state programs, it should reiterate the concerns with GONs and only explore those options where private deployment remains unfeasible even with subsidy dollars.

The NTIA and States Should Take a Technology Neutral Approach in Distributing Funds

During the debates over the legislation, some argued that new networks should support symmetrical upload and download speeds, and usually suggest 100 Mbps.[23] Many proponents made the argument with the expectation that the upload speed requirements would force likely providers to deploy fiber-to-the-home (FTTH).[24] Forcing FTTH in every community is short-sighted, however, and fails to adequately address the needs of consumers, potentially limiting the efficiency with which we use this funding.

First, while FTTH may make sense for many deployments, not every community is the same. As the NTIA highlights, “States and regions across the country face a variety of barriers to achieving the goal of universal, affordable, reliable, high-speed broadband and broadband needs, which vary from place to place.”[25] Instead of mandating a specific technology, the NTIA should work with states to develop programs that allow different models and technologies to participate. Indeed, the NTIA asks how it can ensure all subrecipients have meaningful and robust opportunities to participate in the program.[26] It can do so by emphasizing the importance of allowing different technologies to participate.

For example, home broadband connections have traditionally been provided through coaxial cable networks or through wired fiber connections. Many markets across the country, however, are seeing increased competition from services such as fixed wireless, which functionally provides the same service for consumers.[27] Even then, many consumers would prefer to rely on traditional mobile networks, especially as 5G infrastructure continues to roll-out.[28]

Of course, the NTIA shouldn’t just throw money at bad networks, and the IIJA establishes baseline standards for new networks subsidized by the BEAD program.[29] And indeed, the questions in the Request imply that the NTIA will look beyond these baselines to ensure that networks do not become out-of-date immediately. As the NTIA and states work to develop standards and guidelines for individual deployments, regulators should carefully consider the actual needs of the users rather than establishing artificial thresholds that only expensive FTTH deployments can achieve.

The NTIA Should Work with States to Address Barriers to Deployment

Promoting competition goes beyond simply encouraging provider participation and allowing different models to compete. Unfortunately, significant barriers still exist to the deployment of broadband networks that can significantly affect the outcome of this program. As the NTIA and states work to develop plans for distributing funds, regulators should also carefully consider ways to improve their own processes and regulations that inhibit deployment.

The NTIA and States Should Streamline Access to Public Rights-of-Way and Permitting Review Processes

When deploying networks, broadband providers need to attach wires, dig up ground, and collocate wireless antennas. All of this requires significant investment, but with it also comes costs stemming from the use of public rights-of-way.[30] Local governments have a duty to oversee and manage the public rights-of-way. With that duty comes costs for the local government, and as a result, providers pay a fee to the locality to cover these costs. These fees often vary drastically, however, and may go beyond what is actually required to manage the rights-of-way.

Moreover, providers often need to acquire permits to dig-up ground or install the infrastructure. Again, localities need permits to ensure construction complies with all relevant codes and regulations, and the permits serve a valuable purpose. When a provider needs to install a significant amount of infrastructure, however, these costs

can serve as a major barrier to deployment. In Google Fiber’s Kansas City deployment, for example, the company would have needed to obtain 38,000 permits at a cost of over \$2,000,000 had the city not waived the fees.[\[31\]](#)

As a condition of receiving these funds, the NTIA should work with local governments to establish policies for limiting the fees for reviews and access to public rights-of-way to the actual costs of the locality in processing the applications. States should also implement dig-once policies designed to minimize the costs of installing infrastructure underground. By doing so, regulators can ensure that the funds go to the actual infrastructure and not simply provide a source of revenue for local governments.

The NTIA and States Should Explore Revision of Pole Attachment and Replacement Rules

Pole attachments and pole replacements present another significant barrier to deployment.[\[32\]](#) As explained above, the Telecommunications Act’s provisions on pole attachments only apply to investor-owned poles, not poles owned by a utility or co-op. As a result, renting space on these poles costs significantly more than the regulated rates of private poles. Perhaps even more problematic, when a provider wants to attach a wire to a pole that cannot support modern broadband equipment, it is normally the provider that must bear the entire cost of replacing the pole. The pole owner, however, receives the entire benefit of the replacement, which, often, would have been required regardless.[\[33\]](#)

Like the permitting processes, state and local governments can establish policies as a part of receiving federal support to more fairly distribute these costs among pole owners and broadband providers. While doing so won’t make every possible deployment profitable, it will lower the overall cost of deployment. The saved taxpayer funds can then be used on more difficult-to-reach areas and support additional deployment opportunities.

The NTIA Should Support Local Governments to Comply with Streamlined Processes

Finally, the NTIA asks what additional uses, if any, the NTIA should deem eligible for BEAD funding.[\[34\]](#) Many local governments lack the capacity to quickly process permitting applications and provide the necessary oversight to the deployment process.[\[35\]](#) This hurt low-income communities to a greater extent during the pandemic, especially those that lack the digital infrastructure to work remotely. While the majority of the funds should go to deployment of infrastructure, the NTIA should also consider using funds for local governments to update processes to streamline their review of broadband-related applications. This support, however, should only come when the local government adopts shot clocks and fee caps on their review processes. In other words, if a local government agrees to process applications quickly and cheaply, BEAD money should support their ability to meet the new requirements.

Conclusion

These comments provide a high-level overview of the principles that should guide the NTIA and state governments as they develop plans to distribute BEAD funding. This program presents a rare opportunity to make a meaningful difference in bridging the digital divide, but it is critical that we don’t miss the forest for the trees. Too many Americans lack access to broadband, and the goal must be to get these areas connected rather than overbuilding areas with existing coverage.

Respectfully submitted,

/s/

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[1] Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429, 1182 (2021) (IIJA).

[2] Request for Comment, “Infrastructure Investment and Jobs Act Implementation,” Docket No. 220105-0002 (Nov. 15, 2021), <https://www.govinfo.gov/content/pkg/FR-2022-01-10/pdf/2022-00221.pdf>.

[3] See, e.g., George Ford, “Race and Broadband Adoption: A Decomposition Analysis,” *Phoenix Center Bulletin No. 52* (May 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3855870.

[4] In the Matter of Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, Fourteenth Broadband Deployment Report, GN Docket No. 20-296 (Jan. 13, 2021), <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/fourteenth-broadband-deployment-report>.

[5] “Costs at-a-Glance: Fiber and Wireless Networks,” *Broadband USA* (May 2017), https://broadbandusa.ntia.doc.gov/sites/default/files/publication-pdfs/bbusa_costs_at_glance_networks.pdf.

[6] Steve G. Parsons and James Stegeman, “Rural Broadband Economics: A Review of Rural Subsidies,” *CostQuest Associates* (July 11, 2018), <https://www.ustelecom.org/wp-content/uploads/2018/11/Rural-Broadband-Economics-A-Review-of-Rural-Subsidies-final-paper-1.pdf>.

[7] “Broadband for all: charting a path to economic growth,” *Deloitte* at p. 7 (April 2021), <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-broadband-for-all-economic-growth.pdf>.

[8] *Id.*

[9] *Id.* at 6.

[10] RFC at ¶ 5.

[11] Jed Pressgrove, “States Look to Improve Upon Incomplete FCC Broadband Data,” *Government Technology* (Mar. 05, 2020), <https://www.govtech.com/network/states-look-to-improve-upon-incomplete-fcc-broadband-data.html>.

[12] Scott Wallsten, “TPI’s Broadband Connectivity Index,” *Technology Policy Institute* (Sept. 16, 2021), <https://techpolicyinstitute.org/publications/broadband/map/broadband-connectivity-index/>.

[13] RFC at ¶ 16.

[14] See Jeffrey Westling, “2020 Broadband Scorecard Report,” *R Street Institute* (Feb. 10, 2021), <https://www.rstreet.org/2021/02/10/2020-broadband-scorecard-report/>.

[15] George S. Ford, “Electricity Rates and the Funding of Municipal Broadband Networks: An Empirical Analysis,” *Phoenix Center Policy Bulletin No. 53* (June 2021). <https://www.phoenix-center.org/PolicyBulletin/PCPB53Final.pdf>.

[16] Letter from Tom Struble & Jeffrey Westling to Roger Wicker, Chairman of the Senate Committee on Commerce, Science and Transportation and Maria Cantwell, Ranking Member of the Senate Committee on Commerce, Science, and Transportation, “Hearing on ‘The state of Broadband Amid the COVID-19 Pandemic,’” *R Street Institute* (May 13, 2020). https://www.rstreet.org/wp-content/uploads/2020/05/R-Street-letter_Senate-Commerce-broadband-hearing_May-2020.pdf.

[17] IIJA at § 60401(a)(4).

[18] “The Pros of Public Internet Networks (and Lessons Learned),” Gov1 (May 18, 2018). <https://www.gov1.com/technology/articles/the-pros-of-public-internet-networks-and-lessons-learned-Bd7p9vX4ldUZ7zhU/>.

[19] T. Randolph Beard et al., “The Law and Economics of Municipal Broadband,” 73 *Fed. Comm. L. J.* 1 (2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3819753.

[20] *Id.* at p. 22.

[21] Deborah Collier & Thomas Schatz, “The Folly of Government-Owned Networks,” *Citizens Against Government Waste* 2 (May 2021), <https://www.cagw.org/sites/default/files/pdf/TheFollyofGovernmentOwnedNetworks.pdf>.

[22] “Removing Barriers to Connecting Communities,” *USTelecom* (2021), <https://www.ustelecom.org/wp-content/uploads/2021/02/USTelecom-2021-Removing-Barriers-Issue-Brief.pdf>.

[23] Ernesto Falcon & Katharine Trendacosta, “The Future is in Symmetrical, High-Speed Internet Speeds,” *Electronic Frontier Foundation*

(July 2, 2021), <https://www.eff.org/deeplinks/2021/07/future-symmetrical-high-speed-internet-speeds>.

[24] *Id.*

[25] RFC at ¶ 8.

[26] *Id.* at ¶ 7.

[27] Diana Goovaerts, “Here’s how fiber, FWA factor into cable’s future in 2022,” *FierceTelecom* (Dec. 27, 2021), <https://www.fiercetelecom.com/broadband/heres-how-fiber-fwa-factor-cables-future-2022>.

[28] “Mobile Technology and Home Broadband 2019,” *Pew Research Center* (June 13, 2019), <https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/>.

[29] IIIA at § h(4)(A)(i)(I).

[30] See Jeffrey Westling, “2020 Broadband Scorecard Report,” *R Street Institute* (Feb. 10, 2021), <https://www.rstreet.org/2021/02/10/2020-broadband-scorecard-report/>.

[31] Jonathan Sallet, “Broadband For America’s Future: A Vision for the 2020s,” *Benton Institute for Broadband & Society* p. 53 (Oct. 2019), https://www.benton.org/sites/default/files/BBA_full_F5_10.30.pdf.

[32] Jeffrey Westling, “Pole Replacement Explainer,” *R Street Institute* (Apr. 2021), <https://www.rstreet.org/wp-content/uploads/2021/04/explainer23.pdf>.

[33] *Id.*

[34] RFC at ¶ 18.

[35] “Report and Recommendations: Covid-19 Response” *Broadband Deployment Advisory Committee of the Federal Communications Commission* pp. 12-15 (Oct. 29, 2020). <https://www.fcc.gov/sites/default/files/bdac-disaster-response-recovery-approved-rec-10292020.pdf>.