

# BROADBAND BLUEPRINT

HOW TO ACHIEVE  
UNIVERSAL AVAILABILITY



INCOMPAS  
THE FUTURE OF COMPETITION



# BROADBAND BLUEPRINT: HOW TO ACHIEVE UNIVERSAL AVAILABILITY<sup>®</sup>

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About INCOMPAS:

INCOMPAS, the internet and competitive networks association, is the leading trade group advocating for competition policy across all networks. INCOMPAS represents Internet, streaming, communications and technology companies large and small, advocating for laws and policies that promote competition, innovation and economic development. Learn more at [www.incompas.org](http://www.incompas.org)

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## HOW TO BEST ACHIEVE UNIVERSAL BROADBAND AVAILABILITY IN THE U.S.

In the last decade, policymakers have been focused on how to ensure that all Americans have high-speed broadband available to them no matter where they live or work. The FCC has taken a significant role in advancing broadband deployment, from the issuance of its National Broadband Plan in 2010 and its major restructuring of the universal service fund (USF)—which has been transformed from supporting telephone networks to broadband networks in rural areas—to its most recent broadband deployment agenda wherein it has lowered some of the barriers to build and streamline deployment for wired and wireless (or mobile) broadband throughout the nation.

Despite best efforts, we still face serious challenges in connecting all Americans, including businesses of all sizes, to high-speed broadband. The FCC's latest data estimates that approximately 18.3 million Americans live in areas without broadband access;<sup>1</sup> however, Microsoft's user data shows that over 160 million Americans are not using high-speed internet access (currently defined at 25 Mbps download/3 Mbps upload by the FCC).<sup>2</sup>

This is a significant issue for our nation. Broadband availability and connectivity are essential as many services are moving online, and every economic sector is becoming more reliant upon broadband availability to conduct business. As the FCC recently stated, “[m]odern society is an increasingly digital one, and accessing [broadband] is essential to ensuring that all Americans can participate and thrive.”<sup>3</sup> Indeed, almost every business requires access to the internet (and other broadband services) today. It also is the case that households need access—whether it is for telework, distance learning, remote telehealth monitoring, or engaging in commerce—most Americans agree that they need access to reliable and robust high-speed Internet at home.

High-speed broadband connectivity is becoming an even greater necessity in American homes with the global spread of the coronavirus pandemic as social distancing guidelines and stay-at-home orders require more Americans to work and learn from home, and they must connect with their communities, vital services, jobs, schools, and commerce through online resources.

**160  
MILLION  
AMERICANS  
ARE BEING  
LEFT BEHIND**

1. New Data Shows Digital Divide Is Closing and Broadband Competition Is Increasing, Substantial Progress Made from 2016 to 2018, FCC Press Release (Feb. 20, 2020), *available at* <https://docs.fcc.gov/public/attachments/DOC-362583A1.pdf>. INCOMPAS and others, including Congress and individual FCC Commissioners, have been critical of the data collection that the FCC uses to derive its estimates. For example, BroadbandNow Research recently estimated that 42 million Americans do not have fixed broadband service available to them. John Busby, Julia Tanberk, et al., FCC Reports Broadband Unavailable to 21.3 Million Americans, BroadbandNow Study Indicates 42 Million Do Not Have Access, BroadbandNow (Feb. 3, 2020), *available at* [https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent?utm\\_source=sendgrid&utm\\_medium=email&utm\\_campaign=Newsletters](https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent?utm_source=sendgrid&utm_medium=email&utm_campaign=Newsletters).

2. Carrie Mihalcik, Microsoft: FCC's broadband coverage maps are way off; the tech giant says more than 160 million Americans aren't using the internet at broadband speeds, CNET (Apr. 9, 2019), *available at* <https://www.cnet.com/news/microsoft-fccs-broadband-coverage-maps-are-way-off/>.

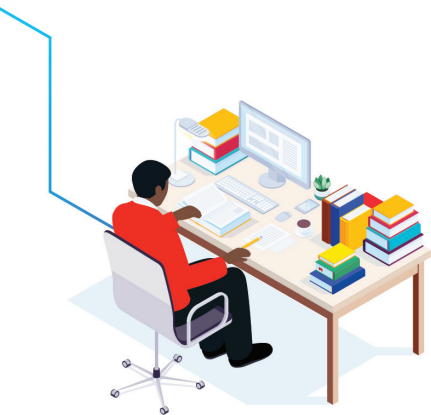
3. FCC 2019 Broadband Deployment Report, FCC 19-44, ¶ 1 (May 29, 2019), *available at* <https://docs.fcc.gov/public/attachments/FCC-19-44A1.pdf>.

Policymakers have used a number of methodologies to expand broadband access, including for example, federal and state grants for infrastructure builds, and as mentioned, the FCC has transformed the USF to support broadband networks. At the federal level, approximately \$4.5 billion a year is spent to build and/or support broadband connectivity in rural areas, and the federal government has provided grants and loans for network builds.

As policymakers continue to evaluate the state of broadband availability and the necessary solutions to bring broadband to their communities and help keep Americans connected at all times, including during national crises, it is critical that they have a comprehensive understanding of the problem, the potential solutions, and the pitfalls to avoid that may inadvertently harm broadband investment. This paper will discuss each of these issues.

## POLICY CONSIDERATIONS FOR FUNDING BROADBAND NETWORKS

**Encouraging private investment.** There are a number of opportunities for funding the deployment of broadband networks. First, the private sector continues to invest in broadband. INCOMPAS' members continue to deploy in urban, suburban, and rural areas throughout the nation. It remains the case that building last-mile fiber is costly and time-consuming. The FCC has taken a number of steps in recent years to address these issues, including adopting policies that encourage more predictable and more reasonable costs to build. For example, the FCC implemented a one-touch make-ready policy for pole attachments that INCOMPAS and its members endorsed.<sup>4</sup> This policy encourages faster access to poles by broadband infrastructure companies. However, there are a number of barriers that companies continue to face. A petition and recent letters filed at the FCC demonstrate there is additional work needed to streamline fiber deployment in particular,<sup>5</sup> and the Commission also is considering the barriers for serving the millions of Americans who live and work in multi-tenant environments that will encourage more competitive broadband deployment.<sup>6</sup> With the deployment of 5G wireless networks, there will be a need for fiber densification to support the small cell antenna network architecture that may improve the business case for fiber in some areas, an opportunity to implement open radio access network (OpenRAN) technology to ensure that future wireless networks are interoperable and based on open standards, and as we discuss further below, an opportunity for state and local officials to streamline approval processes to enable efficient deployment and to ensure that as much of the private and public sector funding is used for the physical deployment of the network infrastructure as possible.



4. See *In re Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*; *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Third Report and Order and Declaratory Ruling, WC Docket No. 17-84 & WT Docket No. 17-79 (Aug. 18, 2018), available at <https://docs.fcc.gov/public/attachments/FCC-18-111A1.pdf>.

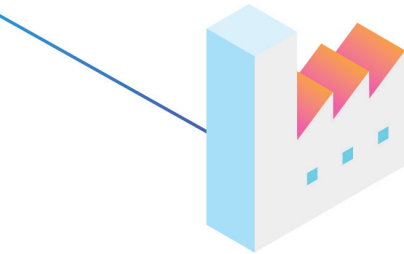
5. For example, Bluebird and Uniti recently filed a petition for declaratory ruling with the FCC explaining that several towns in Missouri are requiring double fees for the same fiber network to occupy the public rights-of-way. See *Wireline Competition Bureau Seeks Comment On A Petition For Preemption and Declaratory Ruling Filed By Missouri Network Alliance, LLC D/B/A/ Bluebird Network and Uniti Leasing MW LLC*, FCC Public Notice, WC Docket No. 20-46 (Feb. 20, 2020). INCOMPAS filed comments in support of this petition. See *INCOMPAS Comments*, WC Docket No. 20-46 (Mar. 23, 2020). Similarly, Zayo recently filed a letter with the FCC detailing the barriers to fiber deployment in numerous cities, and CenturyLink also recently noted adverse impacts to its rural broadband deployment because the FCC's pole attachment requirements are not universally applied. See *Letter from Thomas Jones, Counsel for Zayo Group, LLC, to Marlene H. Dortch, Secretary, FCC*, WT Docket No. 17-79 & WC Docket No. 17-84 (filed Oct. 31, 2019); see *Letter from Craig J. Brown, Assistant General Counsel, CenturyLink, to Marlene H. Dortch, Secretary, FCC*, GN Docket No. 17-83 & WC Docket Nos. 17-84, 19-126, 10-90, at 3-4 (filed Oct. 30, 2019).

6. See *Improving Competitive Broadband Access to Multiple Tenant Environments*, GN Docket No. 17-142, Notice of Proposed Rulemaking and Declaratory Ruling, FCC 19-65 (rel. July 12, 2020).

**Federal/state universal service funding.** In 2011, the FCC transformed its USF high-cost program from the support of phone networks to the support of broadband networks. Now known as the Connect America Fund (CAF), this transformation followed the FCC's National Broadband Plan that recommended that the FCC undertake major reforms to its USF programs to promote the availability of broadband networks and services throughout the U.S. Today, the CAF's annual support for broadband networks is approximately \$4.5 billion. Most of the CAF money is appropriated to incumbent telephone networks—about half of which is used to support the business operations of small telcos (at least in part).<sup>7</sup> The FCC recently adopted a new Rural Digital Opportunity Fund that potentially will spend more than \$20 billion over 10 years to address the persistent digital divide through reverse auction(s).<sup>8</sup> The FCC will begin the first reverse auction in fall 2020, which will target over six million homes that are currently unserved by broadband with download speeds of at least 25 Mbps. In this auction, the FCC will encourage faster networks by weighting the bids of providers willing to build networks of up to 1 Gbps.

**Federal grants/loans.** Earlier in the decade, the American Recovery and Reinvestment Act (ARRA) provided \$7.2 billion primarily for broadband grant programs to be administered by the National Telecommunications and Information Administration (NTIA) of the Department of Commerce and the Rural Utilities Service (RUS) of the U.S. Department of Agriculture.<sup>9</sup> Of the \$7.2 billion total, the ARRA provided \$4.7 billion to establish a Broadband Technology Opportunities Program (BTOP) at NTIA, and \$2.5 billion as funding for broadband grant, loan, and loan/grant combination programs at RUS. In total, NTIA and RUS announced awards for 553 projects, constituting \$7.5 billion in federal funding—\$6.2 billion was grant funding, and \$1.3 billion was loan funding. This effort supported significant investment in middle mile broadband infrastructure.

While the ARRA has faced criticism concerning its effectiveness, such criticism has not deterred Congress from appropriating additional funding for broadband. For example, in March 2018, Congress provided \$600 million to the USDA to expand broadband infrastructure and services in rural America and is making available up to \$200 million in grants, \$200 million in loan and grant combinations, and \$200



7. Small incumbent telcos may now opt-in to model-based support (versus support based on their costs) that requires them to provide broadband service and extend their broadband-capable networks to some new locations.

8. See FCC, Rural Digital Opportunity Fund, *available at* <https://www.fcc.gov/rural-digital-opportunity-fund>.

9. NTIA, American Recovery and Reinvestment Act of 2009 Overview, *available at* <https://www.ntia.doc.gov/page/2011/american-recovery-and-reinvestment-act-2009>.

FEDERAL  
FUNDING  
TARGET:  
\$100  
BILLION

million in low-interest loans.<sup>10</sup> The Lift America Act proposes to spend \$40 billion over five years deploying broadband in unserved and underserved areas.<sup>11</sup> Moreover, House Majority Whip James E. Clyburn (D-SC), along with members of the House Rural Broadband Task Force and other House Democrats introduced the Accessible, Affordable Internet for All Act—which proposes an investment of \$100 billion to build high-speed broadband infrastructure in unserved and underserved communities and ensure that the resulting internet service is affordable.<sup>12</sup> Similarly, some states are considering their own legislation to fund broadband networks in unserved/underserved areas.<sup>13</sup>

With respect to efficient and effective investment in the next-generation of mobile broadband networks, the adoption of OpenRAN<sup>14</sup> will ensure that next-generation mobile wireless networks are interoperable and based on open standards and can help maximize the benefits of advances in 5G wireless technology. Congress is considering making strong investments in OpenRAN to ensure the U.S. remains the world leader in communication technology. The USA Telecommunications Act of 2020 would authorize up to \$750 million for a grant program administered by the U.S. Department of Commerce, in consultation with the FCC and other federal agencies, to promote and accelerate the deployment and use of open interfaced, standards-based, and interoperable wireless networks throughout the United States.



10. USDA Press Release, Stakeholder Announcement: USDA to Open ReConnect Applications April 23, *available at* <https://www.rd.usda.gov/newsroom/news-release/stakeholder-announcement-usda-open-reconnect-applications-april-23>. Another \$100 million is allocated to this program in the CARES Act.

11. H.R. 2741 - Leading Infrastructure for Tomorrow's America Act, *available at* <https://www.congress.gov/bill/116th-congress/house-bill/2741>.

12. H.R. 7302 - Accessible, Affordable Internet for All Act, *available at* <https://www.congress.gov/bill/116th-congress/house-bill/7302>. It was also included as part of the House's Moving Forward Act, H.R. 2, the Democrats' infrastructure package that passed the House on a largely party line vote, but H.R. 2 has not progressed in the Senate.

13. Pew Research Center recently released a report on state efforts to address broadband availability. See *How States are Expanding Broadband Access: New research identifies tactics for connecting unserved communities*, *available at* [https://www.pewtrusts.org/-/media/assets/2020/03/broadband\\_report0320\\_final.pdf](https://www.pewtrusts.org/-/media/assets/2020/03/broadband_report0320_final.pdf).

14. Radio access networks (RANs) serve as the connection between mobile devices or hotspots and a carrier's core network and the internet.



## PRINCIPLES FOR NEW BROADBAND FUNDING

As Congress, the FCC, and state governments consider providing additional financial support for delivering broadband-capable networks, they should consider the following principles:

**Add Networks, Not Fees:** Any new funding for broadband should be based on equitable contributions and reflect the fact that broadband infrastructure benefits the entire economy. An infusion of capital from Congress, the States, and localities is justifiable given the need for broadband, but any new public support should be financed from general funds. Taxing some online or competitive fiber providers, and not others, potentially skews the marketplace unfairly, possibly harming demand for online services and the economic incentive to deliver broadband-capable networks.

**Streamline Deployment:** To ensure that funding of broadband networks is efficient and effective and extending the new investment as far as possible, policymakers should adopt policies that promote transparent and streamlined deployment approval processes and reasonable, cost-based rights-of-way fees. Policymakers also should modify the Communications Act to provide broadband providers the rights and protections that telecommunications carriers and cable operators have to access poles, conduit, and rights-of-way and ensure those protections extend nationwide.

**Internet for All:** Funding should be targeted to areas where it is needed most, ensuring that communities who have been left behind are served. To that end, investing where infrastructure is needed in unserved and underserved areas should be prioritized for funding to help address the persistent availability gap that prior funding efforts have not achieved. Moreover, cross-agency coordination of funding for broadband deployment programs should be adopted in order to avoid duplicative funding of networks and cover as many Americans as possible.<sup>15</sup>

**Better Maps/Data:** Determinations of where support is needed to deploy broadband infrastructure should be based on reliable and verifiable maps. There are immediate actions that the FCC is taking to improve the maps, including incorporating third-party data into its process, and Congress just passed the Broadband DATA Act to improve the accuracy of the FCC's broadband maps.<sup>16</sup> It is important for these actions to focus on the availability of broadband networks to deliver high-speed service, including an analysis of the locations that still need service.



15. In doing so, it is important for policymakers to take into account the various objectives of funding programs. For example, the FCC's high-cost program in the universal service fund does not ensure that schools and libraries are sufficiently served—that is the responsibility of the E-rate program. Fiber builds to schools and libraries through the E-rate program bring faster speeds, lower prices, and better services to schools and libraries that can meet their capacity needs which typically reflect enterprise needs, while the FCC's CAF program is focused on bringing broadband service to residential areas. See Reply Comments of INCOMPAS, RM-11841, CC Docket No. 02-6, WC Docket No. 13-184 (July 16, 2019), at 5-8, *available at* <https://www.incompas.org/Files/filings/2019/INCOMPAS%20Reply%20Comment%20-%20RM-11841%20E-rate%20Petition.pdf>.

16. Broadband Deployment Accuracy and Technological Availability Act, Public Law No. 116-130 (Mar. 23, 2020), *available at* <https://www.congress.gov/116/plaws/publ130/PLAW-116publ130.pdf>. INCOMPAS supports the financing of the broadband map by Congress.

**Competition for Funding:** Reverse auctions have brought more benefits and saved taxpayers money and should be embraced to more efficiently and effectively close the broadband availability gap. No one provider should be favored for deploying broadband. Funding may be technology neutral, and it should provide some positive weighting or business credits for higher speeds and fiber builds, so that the government investment made provides better short-term benefits, as well as invests in scalable, longer-term benefits. Federal legislation that reserves a portion of funding for states to conduct their own reverse auctions encourages state involvement and investment in solving a complex problem.

**Future Proof:** As the FCC finalizes its rule to implement the Secure and Trusted Communications Networks Act,<sup>17</sup> it should explicitly allow impacted wireless providers to use reimbursement funds to “future proof” their networks by purchasing OpenRAN-compatible equipment. With the FCC’s recent findings that replacing certain Chinese-made equipment will cost at least \$1.84 billion, this moment presents a critical opportunity to secure and widen our mobile network supply chain through the more cost-effective OpenRAN model.

### **Broadband Infrastructure Benefits Everyone and Any New Support Should Come From General Taxpayer Funds**

Studies show that broadband infrastructure and the digital services it supports benefit the entire economy.<sup>18</sup> From high-speed internet access that facilitates consumer choice, including, for example, more retail competition, cloud computing, and online video streaming, to dedicated broadband service that businesses of all sizes use in support of their operations, broadband infrastructure plays a critical role. Last year, the U.S. Chamber of Commerce issued a study funded by Amazon that found that (1) “unlocking the digital potential for rural small businesses across the country could add \$47 billion to the U.S. GDP per year;” (2) “increased adoption of online tools and digital services for businesses across rural America could create more than 360,000 jobs in the next three years;” and (3) “increased adoption could grow annual revenues of rural small businesses by more than 21% over the next three years – the equivalent of \$84.5 billion per year.”<sup>19</sup> The top policy recommendation was to increase connectivity by deploying needed broadband infrastructure.<sup>20</sup>

The availability of broadband infrastructure and its adoption and use of online digital tools are necessary components to achieving the full economic benefits from such infrastructure. We are experiencing a greater dependence on our networks than at any other time in our nation’s history. As our lives continue to adapt and rely more heavily on broadband services to meet the challenging circumstances of social distancing and the coronavirus pandemic, the commitment to reach all Americans must be embraced by Congress, the Administration, the States, and local governments and be appropriately funded to deliver the broadband connectivity needed during and after this crisis.

17. H.R. 4998 – Secure and Trusted Communications Networks Act of 2019, *available at* <https://www.congress.gov/bill/116th-congress/house-bill/4998#:~:text=Specifically%2C%20the%20bill%20prohibits%20the,of%20such%20equipment%20or%20services.>

18. See, e.g., International Telecommunications Union, *Impact of Broadband on the Economy* (Apr. 2012), *available at* [https://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports\\_Impact-of-Broadband-on-the-Economy.pdf](https://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports_Impact-of-Broadband-on-the-Economy.pdf).

19. U.S. Chamber of Commerce, *Unlocking the Digital Potential of Rural America* (Mar. 2019), *available at* <https://americaninnovators.com/wp-content/uploads/2019/03/Unlocking-the-Digital-Potential-of-Rural-America.pdf>.

20. *Id.* at 35.

**BOOSTING DIGITAL  
CONNECTIVITY IN  
RURAL AMERICA**

**ADD \$84.5 BILLION  
PER YEAR FOR  
SMALL BIZ**

**CREATE  
360,000 JOBS**



Given that the potential benefits to the entire economy are significant and that the goal to reach all Americans with broadband-capable networks is justifiable, infusions of new capital from Congress, the States, and localities should be financed from general funds. Like other major infrastructure projects financed by the public sector—such as roads—it is important to take into account that a significant investment should be supported by all—not just a few.<sup>21</sup> Moreover, singling out certain online services to add a tax or fee to fund broadband deployment has the potential to deter new online entrants and harm the competition and innovation that is driving online demand. Similarly, unreasonable fees on fiber providers will deter the additional broadband and fiber deployment that is needed across the country to support fixed and mobile services alike and to promote competitive options.

For example, one recent state legislative bill proposed to charge competitive video providers, including online video providers, a cable franchise fee to fund (in part) rural broadband deployment. This approach is misguided and contrary to federal law.<sup>22</sup> First, it is important to understand that local cable franchise authority is authorized and constrained under federal law, the Communications Act. Franchise fees are restricted to cable operators as defined by the Act, and cable operators pay the fee in exchange for the authorization of their networks to be deployed in and occupy public rights-of-way.<sup>23</sup> Internet content companies and other online services are not cable operators, and they do not have network facilities that occupy public rights-of-way. As such, they need no franchise authorization, and applying a franchise fee would be inconsistent with the facts and law.<sup>24</sup>

Moreover, the cable franchise authorization is a right that has significant value to network operators. They may enter into and build their networks on public rights-of-way, occupying public space, (and it originally provided them the opportunity to monopolize the market as the only cable provider in an area).<sup>25</sup> Access to and occupancy of the rights-of-way imposes costs on localities, and a fee is intended to compensate them for their reasonable costs incurred. A plan to require franchise fees to be paid by companies whose networks do not access or occupy public rights-of-way is not only disconnected from the cost causation for the franchise fee, it is inconsistent with the policy rationale for imposing a franchise fee on those networks that do access and occupy the public rights-of-way. Similarly, as we discuss further below, franchise fees on broadband infrastructure, including fiber, that occupy the public rights-of-way should be reasonable and cost-based so that broadband deployment is not deterred.

21. It is important to recognize that the discussion about federal USF contributions reform is a separate and distinct matter from any new funding allocated to achieving universal broadband availability.

22. SB 273, 100th Leg., 1st Sess. (Mo. 2019), *available at* <https://trackbill.com/bill/missouri-senate-bill-273-modifies-provisions-relating-to-video-service-providers/1636832/>.

23. Moreover, Section 621(a)(2) of the Communications Act makes clear that cable franchises must be construed to authorize a cable system over public rights-of-way and through easements; Section 622 limits the cable franchise fees that can be charged; and Section 624 limits the cable franchising authority as consistent with the Communications Act. The FCC has determined that cable franchise fees cannot be charged on non-cable services. And, Section 663(c), 47 U.S.C. § 556(c), preempts conflicting state law. Accordingly, states imposing cable franchise fees on online providers are in conflict with Section 621 that provides that franchises are only required for cable companies whose facilities will be occupying public rights-of-way and easements.

24. The National Conference of State Legislatures cautions jurisdictions from using its franchise authority and applying franchise fees inconsistent with its purpose, stating “[t]o the extent such fees are intended as payment for use of public rights-of-way, that fee should be limited to the actual, direct and identifiable cost of such use, and that portion of the fee should be applied only to those who use the rights-of-way.” National Conference of State Legislatures, Standing Committee: Communications, Financial Services and Interstate Commerce, Policies for the Jurisdiction of the Communications, Financial Services & Interstate Commerce Committee, *available at* <http://www.ncsl.org/ncsl-in-dc/task-forces/policies-communication.aspx>.

25. Cable was able to enter the broadband market using the same network infrastructure with some upgrades to its equipment.

Second, it is imperative to understand that fees are typically borne by consumers. The imposition of new fees on certain online business models, such as streaming may impact the demand for such services, thereby deterring consumer use of broadband. Such deterrence may inadvertently hurt the business case for building broadband networks as it is the demand for video and other over-the-top services that is helping drive the business case for deploying broadband networks—a harm that cannot be easily rectified and is in conflict with our nation’s goals to connect every household and business to broadband.

As noted above, any new government funding for broadband is best supported from general taxpayer funds. For example, rather than adding fees or taxes to some portions of online service, Congress and/or the States can allocate their general budgets towards broadband infrastructure projects. Such an approach is consistent with past funding efforts of major infrastructure projects such as the interstate highway system. The general utility of broadband, and the role it plays in our society and economy of connecting and promoting commerce is like our nation’s major transportation infrastructure—one that should be supported by all stakeholders. Thus, funding broadband infrastructure to ensure that all can be connected and benefit from it should derive from general taxpayer funds. A funding approach that only focuses on taxing certain uses of the infrastructure or taxes some providers, such as online video, and not others, potentially skews the marketplace unfairly, discouraging new online entrants and online competition. It is the demand for new online services that is contributing to the demand for broadband network builds, providing value to users; and network providers are responding to the demand by offering faster speeds and deploying next generation networks. Adding fees/taxes could discourage adoption of online services, potentially harming the economic incentive to further build out broadband-capable networks.

Nonetheless, to the extent any new fees are adopted by policymakers to fund the deployment of broadband networks, they should be fairly and equitably applied on a non-discriminatory basis so that no service market is unfairly skewed. The National Conference of State Legislatures states that:

*“Government policies should create a workable infrastructure in which electronic commerce can flourish. Policymakers must resist any temptation to apply tax policy to the Internet in a discriminatory or multiple manner that hinders growth. Government tax systems should treat transactions, including telecommunications and electronic commerce, in a competitively neutral and non-discriminatory manner. The federal government and America’s industries should work with state legislatures in ensuring equal tax treatment of all forms of commerce and should encourage state efforts to achieve simplification and uniformity through the streamlining of state and local sales and telecommunications tax systems.”<sup>26</sup>*

New government funding to enable broadband is appropriate and welcome, so long as the burden for the funding is appropriately placed so that all who are benefitting from the infrastructure are investing in such connectivity. Given the general purpose of broadband connectivity for the entire economy, general taxpayer funds should be used to ensure that such connectivity is available to all.

NEW FEES HURT  
STREAMING  
DEMAND

LESS DEMAND  
=  
LESS NETWORKS

26. *Id.*

## Aligning Incentives So Funding Is Efficient and Effective

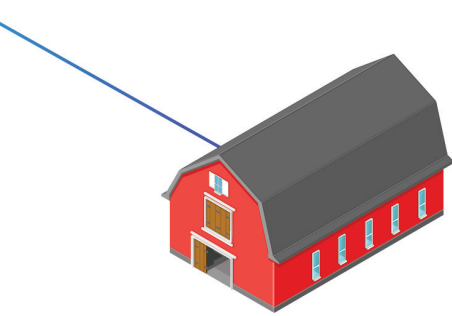
To promote successful and timely deployment of broadband infrastructure, policymakers should adopt policies that promote efficient and effective deployment. Access to poles, conduit and rights-of-way are critical elements for any broadband network build. Unfortunately, there are varying requirements for each area a provider deploys in, and despite best efforts to collaborate with local governing authorities, broadband providers sometimes face undue delays and/or are not able to negotiate reasonable access and/or reasonable fees to deploy their networks in the public rights-of-way. Moreover, at this time, broadband-only providers currently are not guaranteed access to poles, conduit, and rights-of-way under the federal Communications Act, and the protections it affords to some providers do not extend throughout the U.S. in all situations. Congress should improve Section 224 of the Act to clarify that broadband-only providers have the same rights as telecommunications carriers and cable operators and that those rights extend to *all* utility poles.<sup>27</sup> Moreover, policymakers also should implement transparent and streamlined local and state approval processes, as well as reasonable, cost-based franchise fees to access public rights-of-way that would offer providers more predictability in their deployments. Adoption of such policies will make deployment more efficient and effective, extending government-funded broadband and private sector investments as far as possible to benefit more areas. Moreover, for those areas with no broadband infrastructure, speed of deployment is paramount to addressing the connectivity and economic needs. Nevertheless, streamlined policies also can hasten deployment by competitive providers—a much needed boost that will help further address the lack of effective competition in residential fixed broadband service.<sup>28</sup>

## Targeting Support to Areas that Need Broadband Infrastructure

Achieving universal broadband service to all American households and businesses should be the goal, and it is critical for limited, new funding resources to be focused on deploying broadband-capable networks to the areas in need of broadband infrastructure.

Identifying and supporting the areas that have no broadband infrastructure first was discussed by Former FCC Acting Chairwoman and Commissioner Mignon Clyburn who testified before the House Energy & Commerce Committee in 2019, stating:

“Funding must be targeted to places with the greatest need, to ensure that those communities and citizens who have been completely left behind, are connected as quickly as possible. Prior attempts—while important and well-intentioned—simply have not done enough to close *persistent gaps. Investments must begin there.*”<sup>29</sup>



27. See Comments of INCOMPAS, *In the Matter of Restoring Internet Freedom, Bridging the Digital Divide for Low-Income Consumers, Lifeline and Link Up Reform and Modernization*, WC Docket Nos. 17-108, 17-287, 11-42 (filed Apr. 20, 2020), at 6-8.

28. See Comments of INCOMPAS, *In the Matter of Office of Economics and Analytics Seeks Comment on the State of Competition in the Communications Marketplace*, GN Docket No. 20-60 (filed Apr. 27, 2020), at 9-14.

29. Mignon L. Clyburn, Former FCC Acting Chairwoman and Commissioner, Before the U.S. House of Representatives Committee on Energy and Commerce, Regarding “LIFT America: Modernizing Our Infrastructure for the Future,” at 4 (May 22, 2019), available at <https://docs.house.gov/meetings/IF/IF00/20190522/109531/HHRG-116-IF00-Wstate-ClyburnM-20190522.pdf> (emphasis added) (“Clyburn Testimony”).

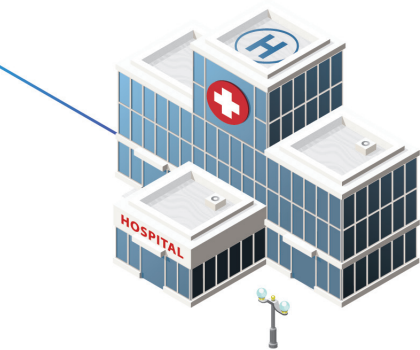
Accordingly, the priority for any new funding made available should be to build broadband networks where the infrastructure is lacking. Achieving deployment in both unserved and underserved areas is important to meeting the needs of communities and may be best realized by addressing both at the same time where public sector funding is sufficient.

Moreover, policymakers should focus the limited dollars on building the networks versus supporting ongoing business operations. Funding capex addresses the significant problem for providers in deploying to areas where there is no business case to build. This is generally how the ARRA (including the BTOP program) was funded, and how USDA's ReConnect program is funding broadband deployment. As we discuss further below, it is imperative that any new funding should favor the deployment of broadband-capable networks that are robust, scalable, and future proof.

Similarly, policymakers should coordinate across agencies to avoid duplicative funding of projects. For example, where the FCC's CAF program has funded builds to residential consumers, any new Congressional, state or local funding should be used to focus on other areas not yet addressed. Such coordination can be accomplished through agency-to-agency discussions and MOUs as well as certifications from recipients of funding that new support will be used to build specific and otherwise unfunded areas.

### **Funding Decisions Must Be Based on Reliable Maps**

It is critical that funding decisions are based on reliable and verifiable information about where broadband infrastructure is not currently available and will not be made available through other funding mechanisms. The FCC's broadband maps vastly overstate broadband availability, and they are not currently reliable for determining all unserved areas (or specific unserved locations). That said, the FCC is taking steps to improve the FCC's data collection and maps that result therefrom,<sup>30</sup> and Congress also has made improvement of broadband maps a priority with its Broadband DATA Act. As such, it is important for the Commission to reform its maps expeditiously to ensure that subsidies are directed to the areas in need of broadband infrastructure.<sup>31</sup>



30. *In re Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195 & 11-10, Report and Order and Second Further Notice of Proposed Rulemaking, FCC 19-79 (rel. Aug. 6, 2019). (INCOMPAS filed a limited Petition for Reconsideration on one aspect of the new mapping requirements.)

31. See also John Kahan, Chief Data Analytics Office, *It's time for a new approach for mapping broadband data to better serve Americans*, Microsoft (Apr. 8, 2019), available at <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>.

In addition to its plans to collect shapefiles from broadband providers that depict their service areas and network capabilities, there are other actions that will improve upon our collective understanding of broadband capabilities. The first step would be to clarify on its broadband deployment reporting materials—Form 477, which the FCC plans to continue to use pending its implementation of shapefile reporting—that providers should submit their information where they currently do provide service. The current requirement that providers submit their information based on where they could provide service is one of the reasons that broadband coverage is overstated. The second step should be to verify that the subscription information confirms that the provider is selling service—i.e., that where there are no subscriptions, the provider should offer verifiable proof that it has network elements in place capable of providing broadband service. In addition, third-party data, such as Microsoft’s user information should be used to improve the maps—where the data does not demonstrate Internet usage then providers should verify its network information. Moreover, the FCC should implement its plans to use crowd-sourcing data quickly so consumers can confirm where they do and do not have coverage. The agency can then use that information to improve upon the Form 477-based maps. Finally, the FCC should retire the current presumption that the entire population in a census block is served if one provider says it *could* provide service there.<sup>32</sup>

### **Funding Should Be Competitively and Technologically Neutral**

There are a number of technologies that can deliver broadband, and the FCC has taken a technology neutral approach to administering CAF funding. Similarly, it has permitted incumbents and competitors to participate (although they must qualify to receive universal service funds and be designated as an eligible telecommunications carrier). To qualify, providers should be required to demonstrate that they are financially and technically capable of deploying broadband and providing the service.

The FCC’s CAF II Auction demonstrates that a competitive, reverse auction that allows for different technologies to participate can succeed in achieving a higher-level commitment of broadband for fewer dollars.<sup>33</sup> Indeed, it has been estimated that the CAF II Auction resulted in 70% less funds than the FCC’s original CAF model suggested would be needed to deploy broadband.<sup>34</sup> Accordingly, any new funding should be competitively and technologically



32. The FCC should also refrain from using its Form 477 information for broadband competition analysis. See Comments of INCOM-PAS, GN Docket No. 20-60, at 8-14 (Apr. 27, 2020).

33. See Joseph Gillan, Lessons from the CAF II Auction and the Implications for Rural Broadband Deployment and the IP Transition, NRRF Insights (Apr. 2019), <https://pubs.naruc.org/pub/9F958420-E885-F843-1AEC-4D290DC9A28E>.

34. *Id.* at 2.

**GIGABIT SPEED  
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neutral to garner as much effectiveness as possible.<sup>35</sup> A reverse auction, as proposed by some federal legislation, will provide an efficient mechanism to invest in broadband infrastructure in areas that need network investment to deliver broadband. Moreover, reserving a portion of funding for states to conduct their own reverse auctions will encourage state involvement and investment in solving this complex issue. Simultaneous and coordinated investment by federal and state policy makers offer a one-two punch to end the digital divide.

While no one provider or technology should be favored for deploying broadband, it is appropriate for policymakers to provide some positive weighting or business credits for higher speeds such as for deployment plans that include fiber builds, so that the government investment made provides longer-term benefits for future proof and scalable networks. As Acting Chairwoman Clyburn states, “taxpayers should be asked to fund broadband infrastructure just one time and the infrastructure built should be robust and capable of serving their communities long into the future.”<sup>36</sup> For example, in the FCC’s CAF II Auction, the FCC positively weighted for higher speeds and will do so again in the RDOF. Given that one-time infrastructure builds should benefit the taxpayers for as long as possible, positively weighting builds that can deliver greater bandwidth and speeds, and potentially using fiber that is more easily upgraded, and can support 5G wireless technology, will be a boon to Americans and businesses who will be able to rely upon it for a long time. In 2017, INCOMPAS called for a fixed broadband standard of 1 Gigabit for our nation—the first organization to do so—recognizing that competitive fiber networks are bringing more capability to consumers and that the nation’s reliance on broadband will require at least 1 Gigabit connections.<sup>37</sup> Thus, INCOMPAS is pleased that the FCC has set 1 Gigabit preferences for its upcoming RDOF auction and is favorably weighting bids to promote greater network capabilities and that the Accessible, Affordable Internet for All Act contemplates a portion of funding for 1 Gigabit networks.

Policymakers should also encourage wireless carriers to “future proof” their mobile networks by purchasing technology based on open radio access network (OpenRAN) standards. By purchasing OpenRAN equipment that is interoperable and uses open interfaces, wireless carriers will not be reliant on a single equipment vendor and can upgrade their networks without the need to continually replace proprietary equipment. 60-65% of the total-cost-of-ownership of a wireless network comes from the RAN. Early virtualized RAN deployments have demonstrated that significant cost savings of 30% to 50% in capital and operational costs. Because of this, OpenRAN will help stretch limited federal dollars, create more competition, promote innovation, and help close the digital divide.

35. While the FCC already has experience with auctions, some have proposed NTIA administer federal funding through reverse auctions. Others believe that state and local agencies should have an opportunity to administer new funds. The FCC’s current requirement (based on the statutory requirement) that USF high-cost auction participants be eligible telecommunications carriers may discourage participation from competitors who have not sought such designation which may be fueling support for NTIA and/or states and localities to administer new funds to avoid this requirement. INCOMPAS supports NTIA or the FCC as administrators of a reverse auction so long as new funding to be auctioned by the FCC should not require providers to be eligible telecommunications carrier to participate. In other words, new funding should be administered outside of the current USF high-cost program.

36. Clyburn Testimony, at 5.

37. Comments of INCOMPAS, FCC GN Docket No. 17-199, Sept. 21, 2017, at 16-20 available at [https://www.incompas.org/files/FINAL%20706%20Comments%20with%20Evans%20Paper%20Attachment%209\\_21\\_17.pdf](https://www.incompas.org/files/FINAL%20706%20Comments%20with%20Evans%20Paper%20Attachment%209_21_17.pdf); see also INCOMPAS Press Release, INCOMPAS to FCC: Set Gigabit Goal Now, Sept. 17, 2018, available at <https://www.incompas.org/Files/filings/2018/09-17-18%20706%20Comments%20Release.pdf>.



## CONCLUSION

In sum, the availability of broadband to all Americans and businesses is a lofty goal that has the potential to unleash significant economic benefits for our nation. During a time of much uncertainty for millions of Americans and a greater dependence on our networks, the time is now for government and broadband providers to come together to help alleviate the red tape and reduce added costs to ensure our communities continue to receive the best services possible. Also, as policymakers contemplate providing new funding opportunities to achieve universal broadband network access, it is important that they adopt streamlined and transparent approval processes; prioritize funding to build broadband infrastructure where it is needed; avoid duplicating support for networks that are being funded by other support mechanisms or by the private sector; support actual deployment of networks versus their operations; use reliable and verifiable maps for funding decisions; offer support on a competitively and technology neutral basis using reverse auctions to gain as much efficiency and effectiveness for support and favorably weight technology like fiber that is future proof and will support 5G technology; and use general taxpayer funds, recognizing that everyone benefits from broadband availability. Finally, it is important that all funding programs hold the providers receiving funding accountable, ensuring that consumers fully benefit from the public sector's investment.

