

# PRINCIPLES TO CONNECT RURAL AMERICA



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# OUR COALITION

**Broadband Connects America is a diverse group of organizations representing the voice of rural America in the fight for affordable broadband and connectivity.**



**Our goal is to close today's unjust digital divide by ensuring reliable, consistent access to the internet and the economic opportunities it provides.**

Together we are working to guide policymakers in considering how best to fund rural broadband projects through a set of mutually agreed upon principles. These principles outline how to modernize high-speed broadband infrastructure, address complex access and affordability problems in diverse rural areas, and deploy new broadband infrastructure to best connect all Americans.

# INTRODUCTION

Deployment of network services in rural America has been one of the challenges of our Republic since its founding. The Constitution authorized Congress to build postal roads and improve navigable waterways to ensure that our nation would remain connected. As technology advanced, Congress and the states have taken steps to address the unique problems of bringing network services such as electricity and telephone service to rural Americans. Broadband is only the latest in a long line of new technologies that have become essential to our daily lives, but the high cost of deployment meant that the market could not provide these services without significant, targeted government assistance.

Building on our rich history of federal, state, and local support for essential services, we have identified the following principles to structure programs in a way that will maximize sustainable access, promote economic development, support competition, facilitate civic engagement, and provide for public safety. The principles are intended to promote discussion and provide guidance on how best to structure programs designed to specifically address the problem of sustainable rural broadband build out and adoption. They are based on both the lessons of past programs to electrify and provide telephone service to rural America, combined with recognition of how modern technology enables and requires new approaches to further our fundamental values. This is not to suggest that existing, legacy programs are no longer needed. To the contrary, many of the organizations endorsing these principles continue to work to modernize and improve existing state and federal programs that promote broadband. But it would be foolish not to take this moment when a new, massive effort is called for to consider how to maximize the positive impact of these programs on communities.

Finally, we want to make it clear that the signatories to these principles do not in any way suggest that problems of affordable access have been solved for everyone outside of rural America. We recognize that the low population density of rural areas combined with the difficulties of geography and distance from urban network exchange points creates unique challenges for deployment in rural America.

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# #1

## FUNDING SHOULD BE ALLOCATED DIRECTLY TO INFRASTRUCTURE NEEDS, NOT DIRECTLY TO LAST-MILE CARRIERS

Investing in infrastructure projects like backhaul fiber and tower deployment benefits consumers directly and creates a marketplace conducive to competition. For years carriers have been granted funding for rural deployment through the Connect America Fund. Rather than repeat the design of the existing Universal Service Fund (USF) High Cost Program, which is grounded in 20th Century network technology, new funding should take advantage of the ability to divide the supply chain into different components such as towers, fiber, conduit, as well as services such as 911 and packet routing. Modern Internet Protocol (IP) networks allow carriers to share facilities such as towers for wireless transmitters, fiber for backhaul, or even just plastic conduit to make pulling fiber cheap and easy. Directing funding to shared infrastructure instead of particular carriers would allow federal and state governments to target dollars where needed to ensure efficient deployment of infrastructure that could serve multiple carriers -- rather than limiting funding to one carrier per community.

Shifting the focus from funding carriers to funding infrastructure would reduce the cost of providing service to rural areas for any carrier that wants to offer service in those areas -- including multiple carriers in competition with each other. This would lay the foundation for affordable, adequate broadband services and community-based deployment plans. Recently the Schools, Health & Libraries Broadband Coalition published a report that found that connecting anchor institutions to fiber, including anchors in rural areas (except Alaska), would cost about \$13B to \$19B. But this cost could be cut nearly in half if the broadband deployment was conducted in a coordinated manner involving national, state, and local authorities using an open and competitive application process.

Policymakers creating funding grants should also avoid complicated, lengthy processes. Instead, grants should be simple: funding sums that attach for the purpose of infrastructure development and terminate upon project completion. Additionally, funding grants should have an application process that is open so that non traditional providers -- such as electric co-ops-- can also apply for funding. This would reduce broadband build out time and costs, and prevent the need for constant renewals of funding. Further, funding should be allocated with an open access, non-discriminatory condition-- meaning any financially-responsible entity may lease fiber along the route, including any institutional customer, telecommunications carrier, or internet service provider. This would also mean that all users are offered access at the same pricing and substantially similar terms and conditions relative to their use of the network.

This principle is not meant to include funds that are directed towards specific users such as Lifeline, E-rate, or the Rural Health program.

# #2

## **CLOSING THE RURAL DIGITAL DIVIDE WILL REQUIRE A COMBINATION OF APPROACHES THAT REFLECTS THE COMPLEXITY OF THE CHALLENGES OF DEPLOYING BROADBAND TO RURAL AMERICA**

Rural America is comprised of a diverse group of less-populated areas, with each area unique in its physical terrain and constituent needs. Small towns in the desert of Arizona have different obstacles to broadband deployment than villages in remote areas of Vermont or in southern Appalachia. The strategy to deploy broadband to rural America should reflect the fact that no two communities are the same, and that different tools will be necessary to tackle different problems. There is no silver bullet to closing the rural digital divide; it is going to require a technology-agnostic approach that addresses several adoption barriers, including access and affordability. Each combination approach should be crafted to address the unique challenges of the communities it aims to serve. A community-based, combination approach can also benefit the bottom line: Wireless ISP, community anchor institutions, and public-private partnerships can cut the costs of deployment by utilizing institutions, local investments, and infrastructure already embedded in communities.

Despite the fact that millions of rural Americans still rely on the network for every-day functions like credit-card machines and medical devices, carriers are actively retiring their legacy copper networks. While some rural Americans will see an upgrade in their service through fiber, VDSL or other technologies, all rural consumers (especially vulnerable populations like the elderly or disability community) are at risk of a sudden downgrade in service. De Facto Retirement of the copper network-- essentially the purposeful, predatory deterioration by carriers in order to “push” consumers to a higher tier of service-- also threatens the viability of rural connectivity.

The Federal Communications Commission has a statutory obligation to prevent harms precisely like these. This obligation includes ensuring that consumers have fair notice before the retirement of legacy networks, that replacement services are adequate for community needs, and that consumers are not forced to pay higher prices for similar levels of service.

Policies that open access to spectrum as public infrastructure on a very localized basis are a cost-effective way to facilitate more high-speed and affordable internet access for rural America by a wide range of providers. Access to wide channels of spectrum with good propagation equips small and tier-two ISPs, as well as community networks, to deploy high-capacity fixed wireless broadband where trenching fiber is not economic or will take too long. Both small licensing areas for mid-band spectrum—including shared access to vacant C-band satellite spectrum—and to wide-area unlicensed spectrum, such as TV White Space channels, is often the most cost-effective approach to providing fixed broadband services to homes and small firms in rural areas where low population density is a physical and financial deterrent to wireline buildout.

The use of TV White Spaces to bring high-speed internet to rural schools, libraries, homes, and small businesses across the country serves as another important example of how policies supporting unlicensed spectrum can help bridge the digital divide.

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# #3

## **BROADBAND DEPLOYMENT SHOULD BE FOCUSED ON ACHIEVING TANGIBLE, AFFORDABLE UNIVERSAL SERVICE TO ALL RURAL AMERICANS.**

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Bringing reliable, affordable broadband to all rural Americans is not only a top priority for rural policymakers, it is also a dire 21st-century need. Regulatory schemes that continue to allow ISPs to dodge rural buildout based on profit-driven plans leave millions of Americans without broadband because their geographic location is too remote to turn a profit. Instead, policies to promote rural broadband should ensure that all consumers in rural areas have access to fast, affordable, secure, and reliable service, regardless of population density or physical terrain.

Rural broadband solutions that provide for tax incentives and remove regulatory barriers are disconnected from the physical problem at hand. Rural America is often serviced by small business ISPs or non-commercial providers such as cooperatives or municipal networks that do not benefit from tax incentives the same way large carriers do. Further, there is no evidence that regulations targeted for repeal increase the cost of deployment in rural areas or discourage investment. Closing the rural digital divide requires a meaningful nexus between problem and proposed solution.



# #4 RESTORING NET NEUTRALITY IS ESSENTIAL TO CLOSING THE RURAL DIGITAL DIVIDE

Though some areas of rural America are fortunate enough to have access to high-speed broadband, it can still be unreliable, and rural communities are significantly more likely to have only one choice of broadband provider. Strong net neutrality protections are critical to ensure ISPs don't block websites or applications or slow down web traffic -- practices that would make rural broadband connections even less reliable and deepen the troubling digital and economic divide between rural and urban America.

In December 2017, the FCC repealed its net neutrality protections. As a result, small ISPs (who typically serve rural areas) may be charged more by large ISPs to connect these rural areas to the global network. This increased cost will likely be passed on to consumers, and rural families will face higher prices for internet access and could face increased obstacles to accessing the online sites, products, and services they want.

Net neutrality protections also ensure a free market and level playing field online so businesses in every city and town can reach customers anywhere in the world. In small towns and rural areas, high-speed internet access provides new economic opportunities for small local businesses to be part of the digital economy and connects local businesses to the global marketplace. Protecting rural consumers from unfair discrimination is crucial to the successful deployment of broadband to rural America.

# #5

## RURAL AMERICANS' ACCESS TO HIGH-SPEED BROADBAND SHOULD NOT BE DISADVANTAGED BECAUSE OF GEOGRAPHY

While 39 percent of rural Americans lack access to high-speed broadband, only 4 percent of urban Americans lack access. Bridging that gap and connecting rural America will require the same standards for service or deployment that are used in urban America. Without equivalent services, rural America will continue to be left behind.

Adequacy can be measured by several different metrics and may be a dynamic standard. The FCC's benchmark for broadband is actual download speeds of at least 25 Mbps and actual upload speeds of at least 3 Mbps. However, metrics other than speed should be factored into deployment success, including affordability, latency, two-way communication capability, reliability, functionality of fixed versus mobile connections, copper retirement, and competition.

In addition, networks deployed to rural areas should be relevant for today and the future in order to ensure that they are not soon outdated. With the transition to 5G wireless, rural areas will not receive the benefits of 5G unless there is a fixed network in the ground that can support 5G speeds. Rural areas must not get left behind as urban areas gain access to 5G speeds.

# #6

## **AN EFFECTIVE AND EQUITABLE STRATEGY MUST INCLUDE PARALLEL INVESTMENT IN COMMUNITY DIGITAL INCLUSION INITIATIVES TO HELP THE LEAST-CONNECTED RURAL RESIDENTS ACQUIRE AFFORDABLE HIGH-SPEED BROADBAND, AFFORDABLE DEVICES, AND BASIC DIGITAL SKILLS AND SUPPORT.**

The majority of rural households lacking home broadband subscriptions of any kind in 2017 had incomes below \$35,000, and one out of three had an income below \$20,000. Even if broadband service becomes more widely available, these lower-income rural households, like their counterparts in urban communities, are unlikely to adopt the high-speed broadband service they need if it is too expensive.

Publicly subsidized, rural broadband providers must offer affordable options, such as inexpensive service tiers and discounts for low-income households. Public investments in rural broadband infrastructure must be accompanied by funding for community digital inclusion initiatives, such as digital skills training and device subsidies, in order to ensure that the entire public can benefit from the federal investments.

Broadband internet access services provided to community anchor institutions (CAIs) and through local CAIs to underserved communities can provide an effective strategy to leverage local public investments and advance the goals of universal access to secure open networks that are inclusive and equitable to meet local community needs and interests, such as public health and safety, education, economic development, culture and arts, and civic engagement.

