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Testimony of  
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Before the  
Committee on Agriculture  
United States House of Representatives

Hearing entitled  
“Closing the Digital Divide in Rural America”

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Chairman Thompson, Ranking Member Scott, and members of the Committee, thank you for holding this important hearing and for the opportunity to testify. My name is David Zumwalt, and I am the President and CEO of the Wireless Internet Service Providers Association (WISPA) - *Broadband Without Boundaries*, representing the companies that provide connectivity to unserved and underserved households and businesses across the country.

Prior to joining WISPA, I served as Chief Operating Officer of Broadband VI, a major Internet Service Provider in the U.S. Virgin Islands whose needs for robust broadband for economic growth is unchallenged. Because of our work, in 2021, Broadband VI was awarded \$84.5 million in FCC funding to supplement its private investment in Territory-wide broadband expansion. I have also served as Executive Director of the University of the Virgin Islands Research & Technology Park, a partnership of private sector, government and university stakeholders that supported the USVI’s network-connected knowledge-based business sector. During my tenure, RTPark sought, but was ultimately unsuccessful in securing, \$4.7 million in financing from the U.S. Department of Agriculture Rural Utilities Service (RUS) in 2008 but did secure \$5.5 million in matching funds from the U.S. Department of Commerce Economic Development Administration in 2009. I have witnessed first-hand the benefits of these programs that seek to lift rural and economically challenged communities.

WISPA’s nearly 1,000 members include broadband service and infrastructure providers, equipment manufacturers, and technology companies that work every day to close the digital divide in many of our country’s most rural and remote communities. Our members’ stories are often remarkably similar. Tired of waiting for someone else to bring broadband to them and their



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neighbors, they took their private capital and built a solution, connecting families, businesses, first responders and community anchor institutions.

WISPA advocates for the widespread deployment of broadband. This is best accomplished by allowing the utilization of the “right tool for the right job” so that all communities, regardless of size or location, can reap the benefits of reliable, affordable, and robust connectivity as quickly as possible.

WISPA and our members are grateful for the leadership of this Committee in promoting our shared goal of closing the digital divide with ubiquitous, reliable, and resilient broadband networks.

### **Importance of WISPs**

WISPs serve nine million Americans, mostly in unserved, under-resourced, and Tribal territories. Our members offer cost-effective, competitive, and innovative services for these communities. WISPs deploy a variety of technologies, including fiber as well as licensed, shared, and unlicensed wireless spectrum, to deliver reliable broadband service to their customers at affordable prices, often in areas ignored by others because the deployment costs are prohibitive.

WISPs are mostly small and medium sized businesses. Many of our members have fewer than twenty-five employees, and almost 70 percent have ten or fewer full-time employees. Often investing their own private, at-risk capital, our members are truly community-based and entrepreneurial companies. According to our latest member survey, more than 75 percent of WISPA’s operator members serve primarily rural areas and very often to small populations, communities that have often been passed over by the larger, national carriers. Many WISPs may be small, but to the communities they serve, their importance is enormous.

Fixed wireless broadband has proven to be a powerful and reliable tool in getting these communities online. According to a 2021 report by The Carmel Group, WISPs can deploy fixed wireless service to residential consumers at about one-ninth the capital cost of fiber-to-the-premises. These favorable economics enable WISPs to serve smaller and more remote communities, where it is not cost-effective for other technologies to be deployed.

Typical speeds that fixed wireless providers offer continue to increase as technology advances, and equipment costs become more competitive. Download speeds exceeding 1 Gbps are possible with current fixed wireless technology, with equipment available from multiple manufacturers. Our industry is one of the most dynamic, scalable and flexible in the entire broadband ecosystem, characterized by rapid, cost-effective deployment, speedy technology innovation, and many new entrants.

Moreover, fixed wireless is being deployed much more quickly than many other alternatives. The basic network elements are a tower or tall building, commercially available radio transmitters and consumer-premises equipment, and, of course, licensed and unlicensed



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spectrum. And WISPs don't need thousands of subscribers to make a business case; often, only a handful of potential customers will justify beginning deployment to multiple locations in an area. In sparsely populated rural areas, that's critical for consumers who should not have to continue to wait for a higher, and sometimes unattainable, critical mass of potential customers for more expensive fiber installation to their homes and businesses.

The need for fast deployment and the ability to connect rural and remote communities was never clearer than during the COVID-19 pandemic. Access to fixed wireless technology was a lifeline for many Americans. Every child who had to attend school from their bedroom, every patient who needed to access their doctor via telemedicine, every business owner who relied on Zoom to connect with customers and suppliers -- none of them could afford to wait for technology to be deployed. They needed to be online, and I am proud to say that WISPs across the country upgraded their networks where necessary to meet increased consumer demand and delivered for their communities. And they continue to do so.

In addition, investment banking firms and private equity funds have made dozens of investments in our members' businesses over the last few years. They are attracted by solid management, favorable growth potential and the large untapped rural markets that will drive new deployment and increased revenue. This trend is ongoing and, along with government funding, positions our members as significant players in the years to come.

### **Closing the Digital Divide**

Due to the hard work and vision of this Committee, great progress is being made to connect all Americans. However, as businesses largely based in rural communities, WISPs know all too well that the digital divide is still a long way from being closed.

Despite the enormous positive impact of broadband, many Americans still do not share these benefits. There remains a substantial number of Americans who cannot fully participate in today's economy and democracy, whose children tend to lag in school, and whose communities are not able to keep pace with the economic growth potential that broadband brings. While the number of new broadband subscribers continues to grow, the rate of broadband deployment in urban, suburban, and high-income areas is outpacing deployment in rural and low-income areas. This disparity has long-term adverse economic and social consequences for those left behind. WISPA is committed to addressing this disparity.

These challenges are particularly acute for our nation's farmers, who are facing higher commodity prices and difficult supply chain issues. Connectivity, real time data, and opportunities to sell their commodities in an expedient and efficient manner are more critical than ever. And many applications used by farmers, such as precision agriculture, require wireless broadband to blanket vast acres of farmland to be useful.

Every American – regardless of where they live – should have access to the very best internet and reliability that they need. Americans in rural areas have no less a need for fast broadband



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than those in urban centers. The questions this Committee faces are, how do we most quickly provide the level of connectivity that rural communities need in ways that leave nobody behind? And how do we ensure that taxpayer dollars are spent in the most efficient and productive ways possible?

We cannot allow this opportunity to bridge the digital divide slip away. The NTIA BEAD program should not be the be-all and end-all for broadband deployment, and USDA can have a significant and positive impact on broadband that is complementary to that program, if the Farm Bill is written and implemented in a technologically neutral way that respects public and private investment. Recognizing the urgency of this moment, WISPA members stand ready to roll up their sleeves and get to work. The stakes are too high, connectivity is too important, and many rural communities have waited far too long.

### **WISPs' Experiences with ReConnect**

The Farm Bill has been assisting rural communities entering the digital age for many years. For this reason, it is critical that the Farm Bill's broadband programs stay focused on those communities that are truly unserved. No community should be asked to wait even longer for broadband so that other communities receive upgraded network buildouts they don't actually need.

WISPA strongly supports the goals of the ReConnect program and supports the investments Congress has provided to bring broadband to more Americans, particularly those in unserved and underserved communities. However, we have seen that, without careful structuring and a clear process, the program risks undermining our shared goals of connecting rural communities with the greatest need quickly. The RUS's most recent funding round exemplifies some of these issues.

First, RUS required that any facilities to be constructed with ReConnect award funds "must be capable of delivering 100 Mbps symmetrical service to every premise in the proposed funded service area." Symmetrical service means that download speeds identically match upload speeds.

Some members of Congress have expressed support for prioritizing symmetrical speeds. Consumers clearly value download and upload speeds differently, and it makes sense for RUS to consider them independently. To make symmetry the primary gating criteria for eligibility when consumers are not even asking for or using it when they have access to it, would prevent many providers from even applying for funding, leaving many communities out in the cold. In addition, this type of requirement would add significant time to deployment, in many cases forcing communities to wait additional years, when they could have service much quicker by utilizing other technologies.

The gap between downstream and upstream traffic has consistently grown over the last ten years. Recently, the ratio of downstream consumption to upstream is 14 to one. Current consumer



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trends demonstrate significant increases in downstream consumption while upstream traffic increases at a fraction of the rate. Today's consumers do not utilize upstream bandwidth at the same rate they use downstream and speak to it with their dollars and usage. Video streaming makes up over 80 percent of all Internet traffic, two thirds of which is traffic from downloads. Even popular applications that utilize relatively high upload bandwidth, such as two-way video conferencing, do not require anything near symmetrical speeds. Studies have shown video conferencing requires approximately one third of the upstream bandwidth compared to downstream.

Networks are optimized based on consumer use patterns. The WISP industry has responded by engineering networks to favor downloads to meet their customers' demand. Even if demand for upload speeds somehow doubles down the road, it will remain far below download speed demand. Basing criteria on speculative predictions about future demand for upload speed – when, as we speak, many communities remain completely unserved – would be counterproductive, especially for an investment of this magnitude.

For these programs to be successful and cost-effective, as many broadband providers as possible should be encouraged to participate. Symmetrical service may work in some communities, but not every location is the same. Erecting artificial, unnecessary, and wasteful barriers to participation would exclude many projects that would now provide connectivity to the most remote communities. If rigid requirements, such as symmetrical speeds, are locked in statute, it precludes RUS from having the flexibility to consider projects that address other key priorities. Lack of flexibility may leave many areas unserved or force those awarded to wait years longer for service, which is counter to the purpose of the program.

Second, USDA defined sufficient access to broadband as “any rural area in which households have fixed, terrestrial broadband service defined as 100 megabits per second (Mbps) downstream and 20 Mbps upstream.” The result of this requirement is that ReConnect funding will wind up going to communities with more than sufficient funding already, leaving out places that lack any broadband at all. It simply makes no sense to divert taxpayer dollars from where they are needed the most to overbuild areas that are already connected.

Simply put, subsidizing overbuilding in areas where innovative, local providers are delivering broadband, or have an enforceable commitment to do so, inequitably distorts the market. It wastes taxpayer dollars. And it still leaves many Americans without any access to broadband.

At a minimum, locations subject to an “enforceable commitment” to provide broadband service through a state or federal program should be off-limits for initial ReConnect funding. This will address two issues. First, it will ensure that taxpayers' contributions to the FCC's Connect America Fund and Rural Digital Opportunity Fund will not be used to subsidize multiple providers in the same market – in effect, the government would be competing with itself.

Second, exempting from ReConnect funding locations subject to an existing “enforceable commitment” will protect the integrity of the programs and the reliance interests of those CAF



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and RDOF recipients that are hard at work investing government funding and their own capital in deploying broadband in rural communities. It will also enable them to attract outside capital on more favorable terms.

Third, RUS included as a key criterion for awarding grants “local governments, non-profits and cooperatives.” The best provider of broadband in any given community could be a local government, a not-for-profit, a cooperative or a private commercial company. We recognize the invaluable work that rural cooperatives have done in connecting their small communities. But we believe that the best way to ensure the most people are connected to the internet – especially in areas where rural cooperatives are not present – is to allow any provider who can best serve a community to access ReConnect funding. As Congress made clear in the IIJA, the government should not be in the business of picking winners and losers. The Farm Bill should not perpetuate this flawed industrial policy.

Each of these issues shares one thing in common: they fail to recognize that every community is different, and therefore every solution must be different. Placing a thumb on the scale to benefit one type of technology, or one kind of provider, does no favors for Americans who are in desperate need of broadband access. It simply favors certain parties and likely increases the time unserved communities must wait for connectivity, at the financial and societal expense of the American public.

For these reasons, it is important that the Farm Bill broadband programs remain truly technologically neutral, both explicitly and by not using proxies—such as the requirement of symmetrical 100 Mbps upload and download speeds—whereby only a single technology can meet the required standard. A failure to adhere to technological neutrality will only exponentially increase costs and further delay broadband deployment to high-cost rural areas. If the Farm Bill goes down that path, it will run out of money before even getting to the farms and rural residents most in need of connectivity.

### **Recommendations for the Next Farm Bill**

As you develop the 2023 Farm Bill, this Committee has an historic opportunity to lay the groundwork for achieving our shared goal of bringing connectivity to every American. With that in mind, I would like to share some recommendations we hope the Committee will consider:

- **Base Awards on Cost Effectiveness.** Cost-effectiveness should be the primary criterion for determining which projects are funded. This will ensure that limited taxpayer resources are allocated and targeted to connecting as many rural Americans as possible. All Americans, including those who live in hard to serve areas, should have access to internet service before public funds are used to support additional networks in communities that are already connected.
- **Modernize USDA Programs.** The USDA should revise its criteria for rural broadband development grants and loans so that the limited available funding is allocated to those projects that truly deliver broadband coverage rapidly to the most Americans for the





lowest possible cost. In addition to the up-front costs of deployment, these programs should consider the total costs to the end consumer, so that federal support is not allocated to deployments that consumers will not be able to afford nor desire.

- Do Not Provide Funding to Overbuild Broadband Networks or Networks for Which Other Subsidies (Federal and State) Have Been Approved. Recipients of loans, grants and loan/grant combinations under this program should not be allowed to use proceeds to fund infrastructure in areas that are already served or where there is an “enforceable commitment” to serve by another provider offering a certain level of service or a provider that is the recipient of subsidies from other government support programs. Limited public resources should be directed to areas where no service is available. Operators deploying private, at-risk capital to connect rural Americans should not face the risk of subsidized competition, and the agency should also not apply support in areas that are already subject to support through, e.g., the Connect America Fund. This risk chills private investment and distorts the marketplace.
- Prioritize Incumbent Providers for Upgrades. Where taxpayer dollars are to be spent for areas where this Committee decides the speeds are “underserving” the community, priority should be given to those ISP’s who are currently serving the community. Chances are that ISP did something no one else wanted to do, not a Co-op nor a large provider, they built a network (most likely with their own money) where no one else would – why should they be punished with government funded competition. Instead, those incumbents should be given the first opportunity to take the capital to upgrade their service to the Committee’s desired level, which can most likely be done for less dollars – once again further stretching our limited taxpayer resources further.

Last Congress, this Committee passed H.R. 4347, the Broadband Internet Connections for Rural America Act. WISPA supports the goals of this legislation and commends the Committee for its commitment to connecting rural communities. WISPA supports the funding tiers included in the legislation that gives priority funding to projects in unserved communities. Focusing on unserved areas first and achieving that objective is the fastest and most cost-effective way to stretch limited federal dollars.

We also believe that the USDA broadband deployment subsidy programs envisioned by H.R. 4347 would benefit by requiring RUS to engage in a proceeding that solicits public comments that can help to streamline the application process for the ReConnect and other USDA broadband deployment programs. In October 2022, GAO found that significant numbers of ReConnect program applicants were rejected by USDA and ReConnect program applicants who were accepted responded that they were substantially disappointed with the ReConnect application process. Their experiences with the ReConnect application process have discouraged some from applying to the program in the future.



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In addition, I would like to thank Reps. Cammack, Soto, Gluesenkamp Perez, and Jackson, along with their Senate colleagues, Sens. Thune, Lujan, Fischer, and Klobuchar, for introducing the Rural Internet Improvement Act. This bill contains several important provisions that will improve the ReConnect program and target its funding towards areas of need. Specifically, the legislation limits funding to areas where at least 90% of households lack access to broadband service. This approach will ensure that those communities in most need of connectivity will be served first, instead of continuing to have to wait for even the most basic broadband service. I urge the Committee to consider including many of the provisions included in the Rural Internet Improvement Act in the Farm Bill.

### **Conclusion**

Every community, regardless of size, location, or geography, deserves reliable broadband service. This Committee has an extraordinary opportunity to expand digital inclusion and take dramatic steps to bridge the digital divide. Industry and the government must step up and work together to meet this moment. This is no small task: it will take every tool available to ensure the rapid deployment of networks so that no community is left behind. That is why the leadership of this Committee is so critical. Your efforts are vital to ensuring that all communities can reap the benefits of robust and reliable broadband.

WISPA and its members stand ready to help every community find the right tools to connect them to the digital economy. This means diversity in approaches, modes of deployment, and paying attention to the needs of each community. WISPs provide the right tool for the right job. WISPs help drive America's innovation economy and fuels the nation's economic future.

WISPA appreciates the opportunity to partner with the Committee in addressing these important issues. We are deeply grateful for the bipartisan recognition of the importance of universal connectivity by this Committee, by Congress, by the FCC, and the Biden Administration. All have implemented policies to promote broadband deployment.

Thank you again, Chairman Thompson and Ranking Member Scott, for holding this important hearing and inviting me to testify. I look forward to continuing to work with you and the rest of the Committee to make real progress on these very important issues. I look forward to your questions.