WIRED FOR GROWTH: HOW EXPANDING BROADBAND CAN REVITALIZE RURAL SMALL BUSINESSES

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WIRED FOR GROWTH: HOW EXPANDING BROADBAND CAN REVITALIZE RURAL SMALL BUSINESSES

WEDNESDAY, SEPTEMBER 3, 2025

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS,
Washington, DC.

The Committee met, pursuant to call, at 10:07 a.m., in Room 2360, Rayburn House Office Building, Hon. Roger Williams [chairman of the Committee] presiding.

Present: Representatives Williams, Stauber, Meuser, Van Duyne, Ellzey, Alford, Finstad, Wied, Downing, Velázquez, McGarvey, Scholten, Cisneros, Morrison, Tran, Simon, Olszewski, and Goodlander.

Chairman WILLIAMS. Before we get started, I want to recognize Representative Cisneros of the great State of California to lead us in the pledge and the prayer. Would you stand.

Mr. CISNEROS. Please place your hand over your heart.

ALL. I pledge allegiance to the Flag of the United States of America, and to the Republic for which it stands, one nation, under God, indivisible, with liberty and justice for all.

Mr. CISNEROS. Dear Lord, I ask that you give this Committee, this Congress, and our nation guidance so that we may bring justice and do the work of the people, for the benefit of the people.

For that, I pray. In the name of the Father, Son, and Holy Spirit. Amen.

Chairman WILLIAMS. Good morning everyone. Before we get started, we are going to have—so you are not worried about what you said or what you did, we will have people moving in and out a lot today because there are a lot of other hearings going on. So if somebody gets up after you talk, don't worry about it. They are heading—but they will be back. So I want you to be aware of that.

And I want to also say good morning to everyone, and I now call the Committee on Small Business to order. Without objection, the Chair is authorized to declare a recess of the Committee at any time.

I now recognize myself for an opening statement. Welcome to today's hearing entitled: Wired for Growth, How Expanding Broadband Can Revitalize Rural Small Businesses.

I want to begin by thanking our witnesses for being here today and access to reliable, affordable broadband is not a luxury. It is a necessity for small businesses, families, students, and communities across America. It is rural areas, in particular, that

broadband can mean the difference between growth and stagnation and between new opportunities and being left behind.

For years, we have heard the frustration from rural entrepreneurs who cannot compete on a level playing field because of slower, nonexistent internet service. They cannot expand their market, streamline operations, or use new technologies. That divide is real and holds back small businesses and the communities they serve.

This is why I have been proud to introduce legislation over the years that would eliminate the digital divide. Further, broadband deployment must be free from political interference. That is why I am encouraged by the steps taken by the Trump administration to reduce red tape, lower cost, and accelerate broadband deployment, ultimately improving connective opportunities.

But cutting through regulatory burdens that slowed investment and innovation for too long, the Trump administration is ensuring that rural communities finally get connected. President Trump promised to put America first, ensuring every American has the tools to thrive in the modern economy.

So today's hearing is about listening to small businesses and rural providers who are experiencing this challenge. As legislators and advocates for main street in Washington, we need a better understanding of what is working, where the roadblocks remain, and how we can continue to build on the progress for small business owners, broadband providers, and local leaders.

Our Committee is committed to ensuring that rural, small businesses have the same opportunities as those in our cities and suburbs. Broadband is a critical infrastructure, workforce, development, education, and healthcare. Most importantly, it is freedom, freedom to innovate, freedom to compete and succeed.

I want to thank our witnesses again for joining us today. You have come a long way. And I look forward to the discussion ahead as we work to ensure that rural America is not left behind in the 21st century economy.

So with that, I would like to distinguish our Ranking Member and acknowledge her for being here and leading New York, Ms. Velázquez.

Ms. VELÁZQUEZ. Thank you, Mr. Chairman, for calling this crucial hearing.

Rural small businesses play a central role in local economies, accounting for nearly 85 percent of firms and 54 percent of jobs in rural counties. However, they face unique problems requiring unique attention, one of which is access to broadband or high-speed internet service, essential activities that many Americans take for granted, like videoconferencing, online banking, e-commerce, and most importantly, reliance on the high-internet speeds and capacity made possible by today's broadband infrastructure.

It is this technology that makes new ideas and companies soar across the nation and the world literally at the speed of light. Over one in four rural Americans have not been connected to broadband internet infrastructure. The reason this gap exists can be found in the issues rural telephone deployment encountered about a century ago.

Put simply, when faced with fewer customers per square mile and more difficult geography than American cities, large corporations find it less profitable to invest in rural infrastructure, be it phones, electricity, water, or broadband, and put their money instead in more densely populated easier to reach places.

This is why government spending is sorely needed to fill the holes in private spending. The previous administration made the single largest investment in this space with a Bipartisan Infrastructure Law through the Broadband Equity Access and Deployment, or BEAD, program. BEAD is a generational $42.5 billion investment in high-speed internet service nationwide, specifically targeting the rural and tribal areas underserved by private industry and creating jobs in those areas to install and maintain broadband infrastructure.

These projects were by law to be powered mainly by fiber-optic cables, the fastest and most reliable broadband technology currently in existence. However, the Trump administration abruptly issued a policy notice upending the BEAD program, requiring grant applicants to quickly rewrite and resubmit their proposals within mere weeks.

The biggest change to the program overturns its emphasis on fiber-optic cables, the best technology around, in favor of an untested technology cornered by Elon Musk's satellites, citing cost savings. I am concerned that the administration is missing the realities of satellites, namely, that it cannot effectively match the speed, reliability, and capacity offered by fiber.

I will jump at the opportunity to make BEAD projects more economical and improve this once-in-a-lifetime investment. It seems like this change will make BEAD focus more on cheap work than on good work. In other words, President Trump isn't lowering this cost for rural America. He is selling rural America short.

Rural small businesses deserve the same high-speed, high-quality internet service as any other business in the country and the world. That means the playing field we give them must be truly level.

It is time for BEAD to honor the on-the-ground perspective clamoring for fiber projects. We must also consider the views of America's territory.

Mr. Chairman, I request unanimous consent to insert into the record a written statement of the Puerto Rico Telecommunications Alliance.

Chairman WILLIAMS. So moved.

Ms. VELÁZQUEZ. With that, I look forward to having a robust conversation today and thank all the witnesses for their presence.

I yield back.

Chairman WILLIAMS. The lady yields back.

And now I would like to recognize Mr. Stauber from the great State of Minnesota to introduce his constituent, Ms. Kristi Westbrock, testifying before us today.

Mr. STAUBER. Thank you very much, Mr. Chair, for the opportunity to introduce the Minnesota witness this morning. I am pleased to recognize Kristi Westbrock, who resides in Merrifield, Minnesota, located in my district, with her husband and daughter.

Kristi has served as a leader at Consolidated Telecommunications Company, headquartered in Brainerd, Minnesota, for over 17 years. Her work has been instrumental in expanding broadband access to underserved communities, reinforcing her passion for rural America and ensuring that all communities, regardless of geography, have access to reliable and affordable technology.

With a strong voice in the telecommunications industry and heartfelt commitment to community impact, Kristi continues to lead with vision, integrity, and a commitment to making a difference, which is why I am pleased—so pleased to have her join this Committee today.

Kristi, I thank you for being here, and I look forward to hearing from you.

Chairman WILLIAMS. Thank you, Mr. Stauber.

And our next witness is Mr. Jimmy Todd. Mr. Todd is the chief executive officer and general manager of Nex-Tech based in Lenora, Kansas. Since 2014, he has overseen the company's operations and strategic growth while also serving as Chairman of Nex-Tech's wireless and holding board positions with the Fiber Broadband Association and other organizations.

Mr. Todd previously served as an infantry officer in the Army National Guard, as an aviation electronics technician in the U.S. Navy, and thank you for that service. He earned a bachelor of arts in social sciences from Chapman University and a master of business administration from the University of Portland.

Our next witness here is Mr. Jeff Vander Werff. Correct, Jeff? Mr. Vander Werff is fourth-generation farmer and the other of VWF, LLC, from Kent City, Michigan. He oversees precision agriculture and agronomics on the farm focusing on the data-driven practices that have positioned his operation as a community leader.

In addition to farming, he is also co-owner of the multilocation agricultural retail business that serves much of Michigan. Here, they offer specialized support for everything from apples to zucchini and crops in between. Does that taste good when you mix all that together?

Mr. Vander Werff is an American Farm Bureau Federation Member and studied crop and soil science at Michigan State University. And so thank you for that.

And I now recognize the Ranking Member from New York, Ms. Velázquez, to briefly introduce our last witness appearing before us today.

Ms. VELÁZQUEZ. Thank you, Mr. Chairman.

Ms. Karen Jackson-Furman is the CEO of West Kentucky and Tennessee Telecommunications Cooperative, or WK&T, a rural co-op serving West Kentucky, Northwest Tennessee, Southern Illinois and Northern Alabama, founded in 1951 to connect rural Kentuckians and Tennesseans to telephones. WK&T now also delivers high-speed broadband to over roughly 2,500 miles and more than 33,000 network connections.

Ms. Jackson-Furman has over 31 years of experience in telecom co-ops, including nine years at WK&T, holding roles like CEO, CFO, and COO. As CEO, she has prioritized new strategic partnerships in pursuing state and federal grants to expand access to unserved and underserved communities.

She holds a bachelor's degree from Southeast Missouri State University and an MBA from Southern Illinois University Edwardsville.

Welcome, Ms. Jackson. Thank you for being here.

Chairman WILLIAMS. The lady yields back. Again, I want to thank all of you for being here today.

Before we recognize the witnesses, I would like to remind them—we have got some rules around here. I am going to tell you the rules. They are not hard, okay?

I would like to remind them that their oral testimony is restricted to five minutes in length. We want to stay with that. If you see a light turn red in front of you, it means your five minutes is up, and that you need to conclude, and you should wrap it up. Okay?

So with that in mind, I now recognize Ms. Westbrock for her five-minute opening remarks.

STATEMENTS OF KRISTI WESTBROCK, CEO AND GENERAL MANAGER, CTC, BRAINERD, MINNESOTA; JIMMY TODD, CEO AND GENERAL MANAGER, NEX-TECH; JEFF VANDER WERFF, AGRA BUSINESS OWNER. MICHIGAN; AND KAREN JACKSON-FURMAN, CEO, WEST KENTUCKY AND TENNESSEE TELECOMMUNICATIONS COOPERATIVE;

STATEMENT OF KRISTI WESTBROCK

Ms. WESTBROCK. Chairman Williams, Ranking Member Velázquez and Members of the Committee, thank you for the opportunity to participate in today's hearing which focuses on the importance of rural broadband connectivity and how it can revitalize small business.

I am Kristi Westbrock. I am the CEO and general manager of CTC, headquartered in Brainerd, Minnesota. I am a native of Browns Valley, Minnesota, with a population of 505. I grew up in a small town where my graduating class was 26 people, and everyone knew everyone by their first name. That grounded my passion for rural America.

Today, I live in Merrifield, Minnesota, with my husband Mike and my daughter Emily. I have been with CTC for 17 years, and I have over 25 years of industry experience.

CTC is a full-service technology adviser serving Central and Northern Minnesota for the past 75 years. With our fiber network, we offer our members fast, reliable internet, phone, TV services, as well as business phone systems and IT systems. CTC is a cooperative, and we live by our mission to empower our members, employees, and communities through exceptional service and life-changing technology solutions for a sustainable future.

As today's hearing will hopefully underscore, fast, high-capacity broadband in rural areas promote small business growth and creates jobs. For example, Leedrick Studios, a cutting-edge video production and marketing company in Hibbing, Minnesota, saw an immediate boost in its process and its production efficiency after having a robust fiber connection. Leedrick had previously served with spotty, less-reliable connection, but we were able to help his company achieve more and receive more from its clients.

Jim Lee from Leedrick studios has stated, in our fast-paced industry where every second counts and digital connectivity is paramount, CTC's unwavering reliability has been a game changer. It is the bedrock upon which we have built our enhanced operational efficiency. CTC hasn't just met our expectations; they have redefined them. Our transition has been transformative.

This is just one example of showing how we have been able to contribute to our community and how a reliable connection can impact rural broadband, rural businesses, and economic growth and vitality. However, we have more work to do.

This is where public policy plays such a key role in helping build and sustain broadband in rural markets that would not otherwise justify such investments for ongoing operations.

For example, there has long been bipartisan recognition for years that the lengthy review process is slowing down broadband deployment, particularly in regions with short construction seasons. In Minnesota, even a brief delay can push projects back by years. These setbacks increase costs, as unpredictable timelines make it more challenging to secure contractors and maintain our work schedule.

Grant programs play a key role in rural broadband deployment, and I provide specific examples in my written testimony of programs that CTC has leveraged, as well as thoughts on where the BEAD program is headed.

Last week the Minnesota Office of Broadband unveiled their draft plan for public comment. CTC is expected to receive approximately 20 million of the BEAD funding, along with our members' capital investment of 6 million to build out 2,209 locations with 35 of those being small businesses.

To be clear, grants by themselves are not enough to keep rural America connected. It ultimately takes a mix of community commitment and private capital to build networks as well. And in many rural areas where terrific broadband exists today, those networks were not built by leveraging grants but, rather, through a mix of private capital and loans and support from the FCC's Universal Service Fund.

In fact, the continued operation and sustainability of network efficiency and affordable services in rural areas can present a significant challenge. This is where USF has its greatest impact. Even if federal funding is available to help with construction capital, we still need to recover our matching investments, keep our rates affordable for consumers and small business, and maintain our networks.

As I explain in my written testimony, while USF has been highly successful, we need to modernize how this program is funded. And we appreciate the work of bipartisan lawmakers from the U.S. Senate and House in considering such reforms.

I thank this Committee and interest in all these issues and look forward to working with you to ensure all Americans experience the benefits of broadband over the best possible networks both today and for decades to come. Thank you.

Chairman WILLIAMS. Great on your timing.

Ms. WESTBROCK. Thank you.

Chairman WILLIAMS. And if you hear me do this, that is to remind you to move on. Okay?

All right. I now recognize Mr. Todd for his five-minute opening remarks.

STATEMENT OF JIMMY TODD

Mr. TODD. Chairman Williams, Ranking Member Velázquez, Committee Members, I am Jimmy Todd, CEO and general manager for Nex-Tech, a rural cooperative serving 33,000 customers across 11,000 square miles in Kansas.

I have been in the telecom and technology industries for about 40 years now and have spent a lot of years advocating for fiber broadband, precision agriculture, and USF reform. I have had appointments to the Kansas NG911 Coordinating Council, Team Kansas on the Department of Commerce, and the FCC's Precision Ag Task Force, where I was a co-author of the 2023 report.

I am a proud veteran of 21 years with the U.S. Navy, U.S. Army, and Army National Guard.

And I would like to share that, as we know, broadband is not a luxury. It is an essential economic infrastructure, and robust connectivity helps our rural communities attract new businesses, retain businesses that we have, support entrepreneurs, and help keep our young people in our rural communities.

For agriculture, fiber infrastructure enables precision tools and ag tech that can serve resources, improve yields, and strengthen the supply chain for food.

I would like to share a quick success story about McCarty Dairy, who over a decade ago reached out to us. They were eight miles outside of our cooperative footprint, and yet, they needed fiber connectivity to secure a contract with a national yogurt brand.

Now, between where we served and their area, there was no one. We looked at this as an economic development opportunity, and we figured out how to make it work.

With that robust fiber connectivity, they are able to monitor the health of 32,000 cows daily. The processing and condensing plants are controlled through fiber optics. The robots are used to milk 10,000 cows a day, and the impact is jobs created, family livelihoods sustained, and communities strengthened.

Farming has transformed a great deal from the days where the single source of truth was the Farmer's Almanac to today's ag technology and data availability. Sensors, automated irrigation, drones, robotic labor all require fiber last-mile infrastructure, and that fiber last-mile infrastructure enables that LAST ACRE network that connects all of these activities going on in today's farms and ranches.

There are many success stories that I can share, but challenges continue to remain. Burdensome permitting processes delay builds, which add to costs and discourage investments. Congress can help by streamlining permitting so rural America doesn't fall behind.

Nex-Tech was the first in the nation to bring fiber to a rural exchange. And despite early criticism of gold plating, we persevered and continued with that focus. Fiber is the do-it-once, do-it-right technology, and it supports smart ag, it supports AI, telehealth, remote education—and will for decades—innovation in the future.

According to the Center for Rural Innovation, rural counties with broadband adoption above 80 percent see 213 percent higher business growth, 10 percent higher self-employment growth, 18 percent higher per capita income growth, and 44 percent higher GDP growth. Broadband adoption directly drives entrepreneurship, jobs, and community growth.

Millions of Americans, however, are still unserved or underserved. I urge Congress to ensure federal broadband funding continues to prioritize fiber, the most reliable, scalable, and cost-effective technology.

Further, you know, if possible, cut the red tape so that we can see permitting reform, as well as USF reform because that will help rural America faster. Finally, ensuring affordability for all Americans is going to remain important.

Thank you for the opportunity with the Small Business Committee here for this hearing and the opportunity to share with you. I look forward to your questions.

Chairman WILLIAMS. Great job. I now recognize Mr. Vander Werff for his five-minute opening remarks.

STATEMENT OF JEFF VANDER WERFF

Mr. VANDER WERFF. Good morning, Chairman Williams, Ranking Member Velázquez, Members of the Committee. Thank you for having us.

My name is Jeff Vander Werff. I am visiting you this morning from the State of Michigan where my family and I operate an agribusiness and farming operation near the town of Sparta.

Like many Americans, we depend on reliable internet service as a part of our daily lives, and in the wake of the COVID-19 pandemic, that need has only become more acute, and I want to thank you for the opportunity to share some thoughts on this topic.

As a small business owner and farmer, the internet is a part of our daily lives. From the connectivity of our precision agriculture software to the use of cloud-based billing systems for our agribusiness, reliable high-speed internet is a necessity we have to have. The lack of infrastructure, however, has made that more challenging as our connected world continues to evolve.

It seems a weekly occurrence in our community Facebook groups that someone is asking if there are better internet options available for their homes and businesses. And, sadly, they are offered only one or two providers in the area, and coverage is less than ideal.

Our family has tried to be a part of that solution for years by installing and hosting broadband internet at our farms, utilizing our physical elevation, as well as our 130-foot grain systems to boost signals and help more folks reach high-speed fixed point internet.

While private industry is making strides every day to improve this, there is a lot of work to be done. We often hear the phrase the last mile when describing services in rural areas, whether it be the Postal Service or Amazon or high-speed internet, and this is where the need is greatest.

And while innovations such as Starlink have helped tremendously, they often are cost-prohibitive, putting a further burden on

rural America where poverty levels can often match those of our most populated cities. I do believe there is a better answer.

Growing up, I often heard my grandparents talk about how life-changing the Rural Electrification Act of the 1930s was and how much life on their farms and rural communities improved. Today we are at a similar inflection point with part of our country living in the modern era while rural America lags behind.

This is just another contributing factor in the decline of our rural towns and the small town America that we all love so much. It isn't just about businesses or farms being able to access internet service. It is about lost opportunities for rural Americans in an increasingly digital world. From education and job opportunities to simple things like trying to order a tractor part, families are being forced to make hard choices when it comes to where they live and where they want to raise a family.

And the increase in online virtual work has made it more difficult for young Americans to plant their roots in the hometown that their families have lived in for generations, further hollowing out middle America.

I want to thank you again for your time this morning to discuss this topic, and I certainly welcome any and all questions from the Committee. Thank you.

Chairman WILLIAMS. Thank you very much.

I now recognize Ms. Jackson-Furman for her five-minute opening remarks.

STATEMENT OF KAREN JACKSON-FURMAN

Ms. JACKSON-FURMAN. Chairman Williams, Ranking Member Velázquez, and Members of the Committee, thank you for the opportunity to testify today on the important topic of how expanding broadband access can ensure small businesses are able to thrive.

My name is Karen Jackson-Furman, and I am CEO of West Kentucky and Tennessee Telecommunications Cooperative, a local provider serving rural parts of Kentucky, Tennessee, Illinois, and Alabama. We serve more than 33,000 customers covering approximately 2500 square miles, and employ 109 people from the community. I am also here representing WTA, Advocates for Rural Broadband.

WK&T will be celebrating its 75th anniversary next year. We got our start with a loan from USDA's Rural Electrification Administration to provide telephone service to the citizens of several counties in Kentucky and Tennessee. Since then, we have expanded and upgraded our operations. Today we provide 100 percent fiber connectivity to our customers.

High-speed internet continues to transform our world, including rural areas, and is a necessity for full participation in modern life and economic competitiveness. WK&T isn't just a residential internet provider. We are also a small business that provides vital services to more than 1,000 other small businesses. Its critical infrastructure is vital for rural communities and small businesses.

For example, Ralph Brothers Farms in Graves County, Kentucky, has 24 poultry barns connected to WK&T's fiber internet service. The brothers are able to monitor the barns on a mobile app

on their cell phones at any hour of the day and recognize problems immediately.

In another example, Michael Warren and Nassar Nassar of Savant Learning Systems in Weakley County, Tennessee, worked with Tennessee's Bethel University to develop one of the first online academic programs allowing police officers to complete their continuing education and required training without having to travel, saving both time and money. They say that their WK&T fiber connection makes all the difference in what they do.

These are just a couple examples, but without a robust broadband connection, it is virtually impossible for a small business to make it in today's world. And if small businesses aren't making it, America's overall economy suffers.

Last year the White House noted that small businesses are responsible for more than 40 percent of America's economic output and two-thirds of net new jobs, and it is not just any connection that matters, but one that can support high bandwidth applications.

At WK&T, we have chosen to deploy fiber because we want to make sure our communities are not just getting by today with good-enough service, but that they have a high-speed, robust, scalable broadband network that will provide opportunities decades from now.

And, as shared in my written testimony, connectivity to our buried fiber network during the destructive EF-4 long-track tornado in December of 2021 was never interrupted, allowing emergency services to assist and potentially save lives.

I would be missing an opportunity if I did not give credit to several important federal broadband programs, without which WK&T would not be able to do what we do. We are able to build, operate, and upgrade our network primarily because of the Federal Universal Service Fund administered by the Federal Communications Commission.

The principles of reasonably comparable service at reasonably comparable rates among urban and rural areas across the country has guided U.S. telecom policy for decades. The USF covers a portion of the costs of our network construction, but also ongoing operations, maintenance, and upgrades so we can keep our network on pace with what Americans in more urban areas enjoy.

Thankfully, the constitutionality of the FCC's USF program was recently upheld by the Supreme Court. In addition, grants from programs like USDA's Reconnect Program created by Congress in 2018 and now the BEAD program have and will provide us opportunities to expand our network and services.

Lastly, as I alluded to earlier, having a broadband connection is incredibly important, but it is also important that it be affordable. As Congress looks to modernize USF, finding a solution to the affordability question must be part of that discussion.

I would like to extend an invitation to each of you to come see us. We would love to introduce you to our small town business owners that rely on high-speed internet to run their successful businesses while living in an area that they choose to live in.

Thank you for the opportunity to testify, and I look forward to answering any questions you may have.

Chairman WILLIAMS. Great job.

I will now move to the Member questions under the five-minute rule, and I will now recognize myself for five minutes.

Mr. Vander Werff, as a small business owner and farmer myself, I understand that the right technology is crucial to precision agriculture.

So my question is, how has limited or unreliable broadband impacted your day-to-day operations?

Mr. VANDER WERFF. Well, thank you for that question, Mr. Chairman.

The simple answer is we can't operate without it. From, as some of the other folks described, complicated ag operations, precision ag, monitoring our grain systems, things like that require good, reliable, high-speed connectivity.

From our agribusiness perspective, we have had to deliberately look to locate facilities in areas that have access to cable internet. If we aren't able to do that, then we are stuck using fixed point wireless or satellite systems, but it just increases our costs much more greatly on that.

So it is definitely something that is a very, very critical part of the overall picture of operating a successful agricultural business today.

Chairman WILLIAMS. Thank you. Now, this question is for both Ms. Westbrock and Mr. Todd.

Rural communities aren't one size fits all when it comes to connectivity. In your view, how important is it for federal broadband programs to take a technology neutral approach, such as allowing fiber, wireless, satellite, and other solutions to compete based on what best fits each community's needs? Ms. Westbrock?

Ms. WESTBROCK. Thank you, Mr. Williams. Yes. So we believe that there is room for all technologies in networks, especially when you are looking at how we can potentially serve communities.

But in my professional opinion, fiber broadband is the answer mostly because we know that it is scalable, and with the AI explosion that we will see, the networks are going to have to be that robust. I also want to make sure that in the BEAD program that the dollars are spent well and that we are not back asking for additional dollars because one of the technologies didn't stand up for the long haul.

I believe in doing that with our taxpayers' dollars and making the best investment when we can.

Chairman WILLIAMS. Good. Thank you. Mr. Todd, you want to add to that?

Mr. TODD. Yes, Chairman. Thank you for the question. And I would agree with Ms. Westbrock in that fiber is the preference, and here is why. It is a generational investment.

When using federal funds to make an investment for broadband connectivity, it is something that we want to stand for generations. You know, we go back to the early, mid 1990s with fiber infrastructure and it is still operating today. However, we have used other technologies that in short periods of time have to be fully replaced.

And so when you look at the reliability and the long-term generational use of the investment, in my opinion, fiber is the preference.

Chairman WILLIAMS. Let me move on, Mr. Todd. How do your companies adapt their deployment strategies to account for unique challenges of serving sparsely populated rural areas where higher cost and terrain or geography may limit certain technologies?

Mr. TODD. So we have been very fortunate to leverage funding through grants from the federal government, as well as the State Government. We have been able to expand our network out to reach our neighbors.

So beyond our cooperative footprint, we have—you know, the network is already in place. So being able to expand there is less costly than if we were start a greenfield build in a particular area.

So we continue edging out as we find funding to be able to reach those sparsely populated areas because I am in a very ag-heavy area. So ranches and farms are the biggest businesses in Northwest Kansas, North Central Kansas. So with that, we expand fiber to reach those businesses.

Chairman WILLIAMS. Thank you. Ms. Westbrock, as a broadband provider, what tools or approaches do you find most effective in keeping service affordable for rural communities?

Ms. WESTBROCK. Yes. So from an affordability standpoint, we specifically were users of the ACP program and find it extremely beneficial during COVID. And so we—keeping it affordable and giving the best technology solutions, we have to also leverage our USF program, the grants that we get, all of those pieces because that drives, too, the affordability and the ability to offer the best services to our members for that price.

Chairman WILLIAMS. In limited time, Mr. Todd, what challenges have you faced with current mapping efforts?

Mr. TODD. With mapping, they continue to improve, but they tend to be a snapshot in time. Not all information presented is always accurate. It is probably worse on the mobile wireless side than it is on the fixed side.

But there are improvements that we have seen in recent years, and we hope to see continued improvements in mapping.

Chairman WILLIAMS. All right. Thank you. I yield back my time.

And now I recognize the Ranking Member for five minutes of questions.

Ms. VELÁZQUEZ. Thank you, Mr. Chairman.

Ms. Jackson-Furman, why doesn't rural broadband receive as much investment from private industry as more urban areas?

Ms. JACKSON-FURMAN. Because it is a very high cost area to serve, and it is very sparsely populated. For instance, we serve 13 customers per square mile, and that drives the cost up and makes it very expensive and less profitable.

Ms. VELAZQUEZ. So there is no question that fairer funding is needed to fill the gap?

Ms. JACKSON-FURMAN. That is right.

Ms. VELAZQUEZ. Ms. Jackson-Furman, can you briefly walk us through the pros and cons of using fiber and satellite for broadband?

Ms. JACKSON-FURMAN. Sure. Thank you. Fiber is scalable, it is reliable, and it is faster than satellite broadband. Right now, the up-front cost to deploy, I know, is a point of contention right now.

But once the fiber is in the ground, it is scalable because just the electronics on the end of the fiber need to be upgraded to provide the needed bandwidth for the future.

Satellite deployment, we have—they share spectrum. There is only so much spectrum. Even if you launch more satellites, it is a shared spectrum resource amongst different spectrum—or satellite providers. So the throughput is not what it is with fiber.

And then we have the issue of needing to replenish the constellations every approximately five years with satellite, and there are unknown environmental concerns with those satellites coming back down and different things like that that we don't understand yet.

Ms. VELAZQUEZ. In fact, a recent study finds that satellites fall below broadband standards when more than a handful of users connect within a square mile.

Mr. Chairman, I ask unanimous consent to insert this study into the record.

Chairman WILLIAMS. So moved.

Ms. VELAZQUEZ. Ms. Jackson-Furman, should satellites be the exception, not the norm in bid projects?

Ms. JACKSON-FURMAN. Yes, ma'am, I agree with that. I think that satellite has a place. Many times it is on things—mobile, RVs, in boats, maybe very remote hunting lodges where there isn't a lot of infrastructure, which those are far and few between.

But I think there is a place for all the different technologies. But whenever fiber is available and the funding for fiber is available, absolutely, it should be fiber.

Ms. VELAZQUEZ. Why is it important to have a variety of broadband programs serving different needs?

Ms. JACKSON-FURMAN. The programs that I am familiar with, Reconnect, Community Connect, BEAD, USF, they all have different purposes. I think it is important that they not overlap, but for instance, Reconnect, that is a—that helps with the capital infrastructure cost, but also has a loan component that might be beneficial for some companies to utilize.

BEAD, that is 100 percent capital infrastructure. But USF, it is unique in that it has got the component for maintenance, upgrades, the long-term operation support. So we need the different funding mechanisms to keep rural America connected.

Ms. VELAZQUEZ. And it will help expand rural broadband beyond what a single program could provide?

Ms. JACKSON-FURMAN. Yes, that is correct. I agree.

Ms. VELAZQUEZ. How does the Universal Service Fund, USF, keep your rates affordable and your model sustainable?

Ms. JACKSON-FURMAN. Well, it does in that it keeps rates affordable because of the subsidies that we receive. It is cross-subsidization, so that the urban areas and the rural areas can have comparable services for comparable rates.

And so anybody in this room that has a cell phone helps contribute to that fund. And then the funds are redistributed so that rural America can benefit and stay connected just like urban areas. So it is paramount in keeping rates affordable.

Ms. VELAZQUEZ. Thank you. In June, the Supreme Court rejected a challenge to the USF funding mechanism, letting the FCC continue its programs.

What does that mean for co-ops like yours?

Ms. JACKSON-FURMAN. It means everything. It allows us to stay on cutting-edge technology. It allows us to keep our networks upgraded, maintained, expansion potentially. It is the difference between operating and not operating.

Ms. VELAZQUEZ. Thank you. Mr. Chairman, I yield back.

Chairman WILLIAMS. The lady yields back.

I now recognize Mr. Meuser from the great State of Pennsylvania for five minutes.

Mr. MEUSER. Thank you, Mr. Chairman, very much. And thanks very much to our witnesses. Certainly, a very important subject.

I travel my district, I travel my state, and sadly, here in 2025, maybe 20 percent of my district has very poor broadband service, and it is ridiculous. There is a lot of money going towards it, federal money, state money. The management of it is awful.

I know in Pennsylvania, our current Governor set up an initiative three years ago—two years ago that sounded good but really accomplished nothing. Nothing has improved, but I am not just going to blame—blame our State leadership. I mean, this has been the case—this should have been improved five years ago, ten years ago.

So that is why—now, Ms. Westbrock, in your State of Minnesota, let me just ask. On a scale of 1 to 10—because a lot of money goes towards this, I mean, $1.5 billion.

And I know how our Democrat colleagues say we just need more money, just give us more money. That is great. Okay. But nothing is improving with the money that has gone.

Now, there has been $1.5 billion sent to Pennsylvania over the last years, and, again, zero improvement. How is Kansas developing—excuse me, Minnesota.

Ms. WESTBROCK. Yeah. So, in Minnesota I would say that our Office of Broadband has done a remarkable job in our State grant programs. I believe they have been allocated extremely well, although I will say that there are providers that take the money, and then they don't build out the—they say they are going to do it, and then three years later, people are still waiting for that.

Mr. MEUSER. They go where the money is.

Ms. WESTBROCK. Absolutely.

Mr. MEUSER. They can do more—right. So the language is written terribly for rural broadband. It is not restrictive enough. So you give it a good rating. Go on.

Ms. WESTBROCK. I give our office a good rating. I would say this, that we have to be very careful, again, of who is getting that money. If you look across the country in rural communities where there are cooperatives and family owns that are local to those communities, that money is being spent correctly.

When you start looking at how it goes into certain corporations, that is when things start to—start to stray a little, in all honesty, and so——

Mr. MEUSER. Thank you. Mr. Todd, same question.

Mr. TODD. In Kansas, the KOBD has managed federal funds that have been allocated to the State, and I would say a majority of those programs are—projects have been fiber-based.

Now, I won't say that all of them have been fiber-based. I would like to say that most were the case. The fiber infrastructure is what will last, and that is what makes the difference.

Mr. MEUSER. Is that a lot more money?

Mr. TODD. It does cost more money, yes, sir. And in order to reach customers that are not connected, I understand the need for fixed wireless or other means, just as was described earlier.

But at the end of the day, whenever a fiber project can be funded, that makes the difference.

Mr. MEUSER. Mr. Werff, I am going to get to you in a second. What else is holding it back besides the misallocation?

You know, there are some that say the prevailing wage issues in states like Pennsylvania, some of the deregulation that is taking place under the Trump administration should improve things.

Mr. Werff, I will turn to you with that. What are the issues standing in the way besides the misallocation of federal funds and state funds that truly are allocated for rural broadband?

Mr. VANDER WERFF. Well, Congressman, I am not a person who installs rural broadband, so I can't speak too much to that. But from the boots-on-the-ground perspective as an enduser, I think it is just the complexity of it.

People have mentioned terrain, and a lot of parts in Michigan, it is very hilly. So point to point becomes more of an issue.

So it is just a matter of getting those projects funded, getting these things going, and getting the cable into the ground, for lack of a better way to put it.

Mr. MEUSER. We have the same issue in my district, the hills. That is what you hear, and that is where, of course, fiber would come in and overcome that issue.

Is that your thought as well in Kansas?

Mr. TODD. Well, fortunately, we don't have the mountains to deal with in Kansas. We have the Flint Hills in the eastern part of the state, but quite honestly, fiber does overcome those challenges wherever you can deploy it.

Mr. MEUSER. Okay. Ms. Furman, do you have anything to say on this broad question?

Ms. JACKSON-FURMAN. Sure. I will just add that we are working in four states: Illinois, Kentucky, Tennessee, and Alabama. And I commend all four broadband offices for working very, very hard. They have been given a hard task, and they have worked very hard to execute.

A few of the things that we run into that cause delays are occasionally permitting issues, railroads especially, sometimes, you know, and I am absolutely for environmental review——

Mr. MEUSER. Sorry. Thank you. I have run out of time.

Ms. JACKSON-FURMAN. Oh, okay.

Mr. MEUSER. I yield back, Mr. Chairman.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Mr. McGarvey from the great State of Kentucky for five minutes.

Mr. MCGARVEY. Thank you, Mr. Chairman.

I want to first welcome my fellow Kentuckian, Ms. Jackson-Furman. Thank you for being here today, and welcome to the Small Business Committee.

I am really grateful for all the work that you are doing to expand broadband access in the Commonwealth of Kentucky, especially in our hardest-to-reach places. So thank you for that.

This is a pretty bipartisan issue, I think. I know that everybody in America wants reliable, affordable connectivity to the internet. As a parent where school just started, literally everything your kids now do is online. This is not a want. This is a need to have affordable connectivity throughout this country.

And it wasn't so long ago that Democrats and Republicans actually came together and worked on this with the Affordable Connectivity Program, which gave internet access to one in four Kentucky families and 23 million households across the country. But the Republicans did let that program expire last year, and I still hear from constituents for whom that program was a lifeline, a connection to their doctor, to their school, to their kids' activities, to homework, to work. That is now gone.

So Republicans and Democrats came together and created the BEAD program, too, which Ms. Jackson-Furman correctly noted in her testimony will bring broadband to 2100 underserved Kentucky locations. This is what BEAD was designed for, making it easier for co-ops like WK&T to go into the hardest-to-connect places and deliver on that last mile.

But in June, the Trump administration abruptly reworked the BEAD program requirements, creating chaos for State broadband programs, offices, small service providers, and communities that were about to get reliable internet for the first time.

So, Ms. Jackson-Furman, we will start there and just say, tell us about what the Trump administration's changes on the BEAD program meant to you and the people for whom you provided internet.

Ms. JACKSON-FURMAN. Thank you. The biggest thing that it meant to companies like me is removing the fiber preference and allowing satellite to compete on equal footing and then fixed wireless too, specifically satellite, though. I know they have put in a lot of applications for a lot of locations.

So what that means for me, I think we fared pretty well in our application area in Kentucky through a consortium that we are involved with. But in Tennessee where we applied for funding, we lost locations that were awarded to satellite. And I say that—satellite was the only other applicant in that area, so I am assuming they were awarded to satellite because they weren't awarded to WK&T with fiber technology. So that was the biggest impact.

Mr. MCGARVEY. And I am hearing from everybody's testimony up here—again, the goal is to get internet to people who need it, right? I am hearing from everybody up here that this preference for satellite makes it less reliable for people to get internet.

Is anybody disagreeing with that right now? Great. Silence is an answer.

So there is a really well-known entrepreneur from my hometown of Louisville, Kentucky, David Jones, Sr. And he once said: Quality is often the most affordable thing you can do. So fiber is a better quality than satellite, it lasts longer than satellite, and even though it might be more expensive up front, is what I am understanding that it is cheaper over the long term and better for the people who need it, Mr. Todd?

Mr. TODD. In our experience, what we have seen is that the investment, when you look at the operating as well as the capital investments, over a 10-year period, you end up being in a better position with underground fiber.

Mr. MCGARVEY. And isn't that what we should be looking at is where are we in the best position for both the people of the country and for taxpayers' money with this program?

Mr. TODD. Absolutely.

Mr. MCGARVEY. Okay. That helps. And it is working better in the areas that most need it, right? Those hard-to-reach areas where sometimes in the mountains of East Kentucky or wherever you are, satellite might not be as reliable, this gets it there and over the long run is cheaper, it is better for people.

And I would love to see us go do that to deliver on that bipartisan goal of making sure everybody in this country is connected to the internet.

In an urban district like mine, a lot of people don't really struggle with broadband access. It is the affordability of broadband right now. And the Affordable Connectivity Program made it just a little bit easier for families struggling to put food on the table to get by, to have internet.

I just want to ask, Ms. Jackson-Furman—you have got 20 seconds—what does it mean in rural communities and what is happening now that the funding is gone?

Ms. JACKSON-FURMAN. Well, the ACP program definitely helped people connect, stay connected. And now that it is gone, they have been disconnected in many cases. And that is it in a nutshell.

Mr. MCGARVEY. You did it in under 20 seconds. Thank you so much.

Mr. Chairman, I yield back.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Mr. Finstad from the great State of Minnesota for five minutes.

Mr. FINSTAD. Thank you, Mr. Chair. I want to welcome Ms. Westbrock to the Committee. As a fellow Minnesotan, I just want to say thank you. Thank you for what you do for our neighbors. And for the Committee, what she does for our neighbors is—there is no cookie-cutter approach.

Every hookup that you provide, every high-speed internet access point that you provide, you are going through lakes, you are going through rocks, you are going through forests. You live in a gnarly part of the state when it comes to not a direct A-to-B-type hookup. So thank you for being creative and figuring it out.

You know, access to high-speed internet is the great equalizer in rural America. It provides opportunities for our small businesses to, you know, really be competitive globally. And without that access, we lose opportunities in rural America.

And one of the things that I have heard from small businesses across Minnesota is really just understanding the maps. You know, we see the different maps, whether it is from the State broadband office, whether it is from the federal level.

As a small business is looking at locating or expanding or, you know, really trying to figure out where they can play in that global

economy, you look at one map and says, well, this area has, you know, great access to high-speed internet. And then you set up shop, and you realize you don't.

So from your perspective, just give me the lay of the land in regards to the mapping of what we in government, you know, think to believe to be true versus what is on the ground a reality.

Ms. WESTBROCK. Sure. Thank you. Across our service territory, we receive requests on a daily basis from business owners wondering if we are going to build in their area because they don't have access to a good connection. We immediately go to the maps to look and see if there is any opportunity to be able to build to them using a federal program or a state program.

And when we go there and look, they show that they are served. And this happens probably eight out of the ten times that someone calls in. And the reason that they are showing served is because people are overreporting their data, companies are overreporting. And at specific locations, they may serve someone in that area, but they are reported in the entire census block.

So, for us, I would say we—we really are worried that this money is being spent, and grant programs are being created based on incorrect data.

Mr. FINSTAD. So on that point, where does the buck stop for the overreporting, the inaccuracies?

Because, I mean, to a certain extent, if you were an outsider looking in, you would say, well, that is a bunch of malarkey, that is fraud, that is misrepresenting where the federal dollars are going, and it is not the reality that we see.

So where does the buck stop on that?

Ms. WESTBROCK. Sure. So I think that the buck has to stop on that we need to put serious consequences in for chronic overreporting on this map data because until that happens, I don't see it getting corrected because what it does is it opens up those areas, then, for a provider like us to come in and use federal dollars to be able to build in that area. And those providers do not want that to happen.

Mr. FINSTAD. So as has been stated earlier, I mean, I think this issue is a very bipartisan issue. I think you will see support on both sides of the aisle.

I think where we can probably really hone in to make sure the dollars are getting to where they need to go is if we just start with the maps and be honest with ourselves about—we are not just going to keep throwing money against the wall and relying on maps that aren't accurate because, at the end of the day, if you are in that area that the map says you are getting the service, but you know in reality you are not, we are throwing good money at bad. And so I think that is one area for us to start.

I hear it from our small businesses all the time, that they—depending on what map they look at, they say they are covered, but the reality is they are not. And it has to be frustrating not just from a small business perspective, but for a provider like you that is trying to do well and trying to really get to that farmer at the end of that three-mile gravel road that on paper might say they have service, but they don't.

So I think that is one of the areas that we can really dig into here in Congress to try to figure out how do we do better with the dollars that we are spending to make sure we are actually getting to that farmer at the end of the three-mile road.

And I just, again, want to thank you for what you do for our neighbors. I know that—like I said, not—not two projects are alike, but you are a problem solver and you are really trying to do good for our neighbors, and I appreciate you being here.

Mr. Chair, I yield back.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Mr. Cisneros from the great State of California for five minutes.

Mr. CISNEROS. Thank you, Mr. Chairman.

Like several have already shared today, I believe we are at an inflection point, much like electricity in the early 20th century, internet access is a foundational technology in the 21st century.

Every house and small business across this great nation should have access to the internet, not just in urban communities, but in rural communities too. It is becoming more important as our country increasingly relies on the internet for information, economic growth, and communication.

Just earlier this year, the Trump administration attempted to eliminate many Social Security services over the phone, essentially pushing seniors in rural areas to rely on the current access to internet or travel long distances to a field office. This highlights how access to broadband is not only critical for small businesses, but for the broader communities.

For small businesses, there is no doubt internet access can foster growth and enhance capabilities to succeed in this digital economy. I am eager to work with my colleagues across the aisle to ensure all Americans have access to high-speed and affordable broadband.

With that, Ms. Jackson-Furman, I would like to ask you, private sector plays a key role in building out broadband access.

Do you have any notes for this Committee on how the federal government can accelerate private investment or improve collaboration within the private sector to ensure underserved areas have the access to internet they need?

Ms. JACKSON-FURMAN. I think that private investment is extremely important. I know that we have had many collaborative efforts with local governments. We have had partnerships with local counties, local municipalities. It all comes down to money.

But I think that the private investment from co-ops and other companies, coupled with these other local investments are what really makes it work whenever there is a lack of federal funding.

Mr. CISNEROS. All right. So how can we use the federal funding that is out there? Is there any changes that we need to make to the current system right now to help the private sector continue to invest in this?

Ms. JACKSON-FURMAN. Well, I think making the funding available is key. I think that is kind of what we have heard across the panel this morning. Making—the funding and the different funding mechanisms need to remain because they all have different goals, and they contribute to the success of connectivity in rural America in different ways.

So continuing the funding, the USF programs, the Reconnect programs, the—make sure the BEAD money is allocated and spent and put into service. Those are all very important to get rural America connected and stay connected.

Mr. CISNEROS. All right. Thank you very much.

Mr. Vander Werff, your parallel between electricity and broadband is actually what I was thinking when I heard the topic for this hearing.

With ongoing conversations about next generation internet technologies, what would be the impact of a wired digital divide on small town America if we don't start making improvements now?

Mr. VANDER WERFF. Thank you, Congressman. That divide is only going to continue to increase. And being someone who lives in a rural community, has grown up and lived there for generations, one of the big things that we see is the number of young people that continue to leave our communities. And if we want to have rural America continue to exist, to be quite direct about it, for another two or three generations, we have to give young people an incentive to want to stay there.

And if they can't further their education, if they can't access online job opportunities, things like that, that divide is only going to continue to grow and continue to erode rural America.

Mr. CISNEROS. Well, thank you for that answer.

Ms. Jackson-Furman, another question for you. Once networks are built, how important is it to ensure our families and businesses can afford to connect to these networks?

Ms. JACKSON-FURMAN. It is very important. I think that whenever connectivity is ubiquitous, all boats rise in a community. There is opportunities for remote work, remote education, which oftentimes lead to career positions and remote work and sustainability of families in rural America. So it is extremely important.

Mr. CISNEROS. All right. Well, thank you all for being here today.

And like my colleagues have said, right, this is a bipartisan issue. It is something that all of America needs no matter whether you live in the urban areas, like my district is, or in rural America.

This is what drives our economy now. This is how we communicate, and this is how we do business. And if we don't make these investments and if we don't support these efforts to ensure that everybody has access to this, it is only going to leave people behind.

You know, I think in our day and age right now, we would never stand for anybody living in a house or being anywhere without electricity or running water in their house, and I think we have to feel the same way right now today about internet connectivity.

So with that, Mr. Chairman. I yield back.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Mr. Stauber from the great State of Minnesota for 5 minutes.

Mr. STAUBER. Thank you, Chairman Williams and Ranking Member Velázquez for holding this hearing today.

You know, in rural Minnesota broadband isn't a luxury. It's actually a matter of survival. I have heard from businesses across my district in all the counties and small communities who are trying to serve their communities by running restaurants, farms, auto

shops, and much more. Yet they can't reliably upload a payroll file or process a credit card when a snowstorm knocks out their satellite service.

It is 2025, and this can't be accepted as the status quo for our rural communities. Connectivity is no longer optional, and right now federal broadband programs are too duplicative, too bureaucratic, and too slow to deliver results for main street.

Ms. Westbrock, you know this better than most. You serve rural Minnesotans every day through CTC. Could you speak to the regulatory roadblocks like permitting delays and redundant reporting that hinder your ability to build and connect our communities?

Ms. WESTBROCK. Thank you.

It is our primarily roadblock during construction season of getting the permitting approved. And so, in one really specific example, as you know, we hope that we can start building in April, and we hope that we can go to mid-October, but then our construction season is over.

So, when we have 6-month delays for soil testing, that causes our project to get pushed back another year. And then we wait another 6 months for the State to approve it. We are now pushed back 2 years on that project only because of the delays in permitting.

Mr. STAUBER. And the 2 years, it becomes more expensive every year you delay.

Ms. WESTBROCK. Absolutely.

Mr. STAUBER. In your testimony, you also mentioned the importance of the Universal Service Fund in helping maintain affordable service for rural areas. That is an issue that I have worked on with you directly, and I signed onto the amicus brief defending the USF before the Supreme Court, and I was glad to see the court ruled in our favor preserving this essential program.

Can you expand on why the USF is so critical to rural broadband operations and what you believe Congress should do to help modernize and sustain it.

Ms. WESTBROCK. Sure. And thank you for signing onto that brief. That was a very important time for us.

There are several pieces of legislation right now. The Fair Contributions Act, Lowering Broadband Costs for Consumers Act, and then the USF working group that are working on updating programs which would put USF on more stable footing. Failing to address these concerns will accelerate the declining pool of resources available for USF.

And for us specifically, we work very, very hard to not be dependent on it. I mean, we are building out and diversifying our business all the time, but at the end of the day, our business is still over 20 percent dependent on USF, and that number for many co-ops is a low percentage.

But without that, we cut jobs. We cut services. Our networks don't stay as reliable. So USF does have to have reform.

Mr. STAUBER. I actually went out and toured one of your sites there. Incredible people, incredible leadership, and trying to spice up fiber. I mean, it is just an amazing process, and I was very happy to be there just outside Brainerd.

And finally, in your testimony, you provide some specific examples of how broadband service has helped small businesses in our

community. Can you talk about what broadband service technology you believe is most beneficial to meet the needs of small businesses in our rural communities?

Ms. WESTBROCK. Yes, and I would love to give you a specific example. 7Sigma Systems is a company that is located in Brainerd, Minnesota. They have 25 employees, but they run a software company. That software company touches millions of end users on our fiber network.

And just to take into account the 25 employees they have, they have no brick and mortar, and so those 25 employees are in States like Georgia, Indiana, Wisconsin, Texas, Iowa, and they are all operating—all of those employees have to have reliable network in order to support that.

And so that business is so exciting because those people can live where they want to live and have the jobs that they have for a livelihood there.

But we believe in fiber, Representative Stauber.

Mr. STAUBER. Yes, you know, representing a rural community, that is a quality of life issue. If you talk to realtors, I mean, the first thing people ask us: Is it a reliable service? That is a huge component to the economies that are going to drive new home buildings, first time home ownership in rural America.

I remember we held a hearing in Scandia, Minnesota. We talked to a business owner who said he would have never located there had he realized there wasn't the reliable service.

So we can't hear that. Small businesses are the engine of our economy, and you helped make our economy better by laying that fiber so we can go into greater America and enjoy our quality of life.

Mr. Chair, that is it and I yield back.

Ms. WESTBROCK. Thank you.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Dr. Morrison from the great State of Minnesota for 5 minutes.

Ms. MORRISON. Thank you, Chairman Williams and Ranking Member Velázquez for holding this hearing, and thanks to our witnesses for being here and taking the time.

A quick shout out, of course, to my fellow Minnesotan, Ms. Westbrock. I love all the Minnesota representation in the House today, Mr. Chair. Thank you.

While I was home in Minnesota in August, I had the pleasure of meeting with many small businesses from around my district. We all know small business plays a vital role in our economy, and their entrepreneurial spirit helps them devise innovative solutions to the unpredictable challenges that are thrown their way.

One of the critical tools that help our small businesses innovate and modernize is, of course, broadband internet. So many aspects of our lives, such as e-commerce, education, and healthcare now rely on having reliable high-speed internet service.

As a physician myself, telehealth enabled me to continue to connect with and care for my patients during the pandemic, and since then telehealth flexibilities have continued to play a crucial role in ensuring patients are able to access the care they need, especially in rural areas.

Telehealth options fill a gap in areas where in-person care is limited or specialty care is unavailable, but to access these services, patients and providers have to have reliable broadband connections.

So with that in mind, Ms. Jackson-Furman, do you have suggestions on ways that the USF can be improved to ensure that rural healthcare providers have the broadband capabilities needed to provide telehealth care?

Ms. JACKSON-FURMAN. Well, we have got specific programs within USF that are designed for specific initiatives, such as E-Rate and other health services. So I think that if that were a priority, I think that potentially a specific fund could be set aside for something like that.

But in the greater realm, if the BEAD funds are expended the way that they are supposed to be expended to achieve what they are supposed to achieve, we should have connectivity. It is an internet for all program, right, and we think that there may be holes left post BEAD that reconnect and different funding mechanisms can help fill.

But I think that all of that has to do with deploying the facilities and then having specific USF programs to help people stay connected and to continue to maintain those networks going forward.

Ms. MORRISON. Thank you. I appreciate that answer.

In June, the Trump administration issued a policy notice making substantive changes to the BEAD program. One of the most significant changes was deprioritizing the installation of highly reliable fiber-optic cables and allowing funding to go to satellite broadband technology providers. This change opened the way for Starlink, America's largest satellite broadband provider and a subsidiary of SpaceX to receive funds for BEAD projects.

Ms. Jackson-Furman, again to you. Can you discuss the impact of those changes?

Ms. JACKSON-FURMAN. Sure.

The biggest impact for providers such as WK&T was losing the fiber preference and allowing fixed wireless and satellite specifically to compete for the funds. The short answer is that it will create a landscape of haves and have-nots for fiber connectivity, which is faster, more reliable, and scalable. So some folks will be left with an inferior service, and that is unfortunate.

So a specific impact to WK&T is we lost the opportunity to serve serviceable locations that we would have otherwise served with fiber.

Ms. MORRISON. That is concerning. Thank you. And good to know.

I, of course, would be remiss if I didn't mention that Starlink is owned by Elon Musk, and these changes made by the Trump administration came shortly after Mr. Musk's tenure as a, quote, special government employee.

In the lead up to the passage of the budget reconciliation bill, the majority attempted to condition BEAD funding on States agreeing to not regulate artificial intelligence for 10 years. I am concerned about how this would threaten online safety, jeopardize data privacy, and spread misinformation.

But I would like to hear from you, Ms. Jackson-Furman, on how linking program funding to an unrelated condition might hinder broadband deployment.

Ms. JACKSON-FURMAN. In my opinion, AI is a separate issue from BEAD funding, and they shouldn't be linked at all. AI, obviously, is a tool that we all use in day-to-day life, and it is exciting and it is new. I think that it does need to have some boundaries on the sides of it to make sure it is used appropriately. But, ultimately, I believe BEAD funding and AI are completely unlinked.

Ms. MORRISON. I agree with you. Thank you, Ms. Jackson-Furman.

And thank you, Mr. Chair, and our witnesses. I yield back.

Chairman WILLIAMS. The lady yields back.

And it is like being at the Minnesota State Fair with all of these Minnesotans here today.

I now recognize Mr. Alford from the great State of Missouri for 5 minutes.

Mr. ALFORD. Thank you, Mr. Chair. I am not from Minnesota, but another "M" State, Missouri. Good to have you with us.

I have the honor of representing Missouri's Fourth Congressional District, largely rural, 24 counties in the heart of Missouri and the heart of America.

Right now 15 federal agencies with more than 100 different programs have been working to try to make sure that every American has access to broadband. Despite this, I meet folks each and every time I am back in the district, and they ask me one thing: When are we getting broadband?

Farmers cannot use modern technology. Families cannot access telemedicine. Small businesses are not willing to relocate to rural areas because they don't have the tools necessary to conduct small business in 2025. Many of my constituents lack the rural broadband, about 70,000 families. That is a lot. And this is despite billions of dollars being spent on attempts to expand rural broadband, including the most recent trench of $42 billion from the Biden administration's Infrastructure and Jobs Act.

It is unacceptable in my opinion that 7 million homes and businesses primarily in rural areas like Central Missouri still lack access to rural broadband.

Ms. Westbrock, thank you for being here today. Billions of taxpayer dollars, as we have said, have already been spent on broadband expansion, and yet rural communities still do not have adequate access. Why is that?

Ms. WESTBROCK. Well, I will give you my professional opinion on that. I believe that the reason that they don't have access yet is because the way certain programs have been administered, that the programs have given money to companies that don't follow through on the work that they say they are going to do or they take shortcuts. They don't put in the robust connections that should be put in and then they are lacking that connectivity still in rural America.

And we see it over and over with large corporations that say X and they don't do X, and that is very concerning when you live in small rural communities, and you hear that often.

Mr. ALFORD. Are there any consequences to that lack of fulfillment for what they are really charged with doing with the federal government's money?

Ms. WESTBROCK. I am unaware of any.

Mr. ALFORD. Mr. Todd, you are the CEO of Nex-Tech, a company bringing fiber to rural communities in nearby Kansas. Given your advocacy for broadband funding reform, what legislative or regulatory burden do you believe most slows deployment in areas like my district?

Mr. TODD. Thank you for the question.

And I would say what would slow things down is generally the permitting process. As you know, there are different levels of permitting and right-of-way access that must be navigated. You have got different programs within the federal government which are not in sync, but you also have State and county and municipality codes that you have to work with. All of those can present delays in getting the permitting necessary to build out a project. That leads to delays and increased cost, unfortunately.

Mr. ALFORD. As I stated, more than 100 programs have been set up to try to get rural broadband to everyone. Can you explain how a streamlined effort could help providers and their customers in rural communities? I assume some of this would be overcoming some of the regulations that are stifling the growth of expansion.

Mr. TODD. I believe consistency would simplify things. Streamlining and consistency would make a difference. When a different program follows different rules and how you approach not only presenting a project but being approved and then acting on it, then that creates complications. So uniformity and consistency would be a great help.

Mr. ALFORD. Mr. Werff, we have 1 minute left.

There are thousands of folks just like you in my district who are forced to adapt and attempt to run their small businesses without full access to broadband. How has this lack of access to broadband, how has that affected your business?

Mr. VANDER WERFF. Thank you for the question.

We have been fortunate so far that we have been able to locate facilities and locate people in areas where we have access to at least something as far as broadband goes, but an overarching part of this conversation is not just broadband but cellular access because oftentimes—for example, our billing and software and everything for our Ag retail facilities, those orders are all taken on iPad. So either it is a hot spot or cellular connectivity, but the software itself is based in Illinois and operates all on cloud.

So we can't operate without high-speed reliable internet, and so occasionally that forces us to reconsider where we want to locate a facility.

Mr. ALFORD. Thank you. Thank you all for your answers and for being here today.

And I yield back, Chairman.

Chairman WILLIAMS. The gentleman yields back.

And I now recognize Mr. Tran from the great State of California for 5 minutes.

Mr. TRAN. Thank you, Mr. Chairman.

Ms. Westbrock, last year your company CTC announced a partnership with the Communications Workers of America to create the first broadband center apprenticeship program for Minnesota and other States in the region. How beneficial are programs like these to both workers and providers like yours?

Ms. WESTBROCK. It is extremely important, especially in rural communities, that we can provide young—new workers coming into programs with the apprenticeship program.

In this case, we had a tremendous experience in working with the CWA. We had our first two that graduated from the apprenticeship program. They both came straight out of high school into the apprenticeship program and are already working in a great job with great income.

So, it has been super successful, and my thanks to CWA for working with us.

Mr. TRAN. That is so good to hear.

How can the federal government better maintain and expand its support for registered broadband apprenticeship programs like yours?

Ms. WESTBROCK. Funding. Funding mechanisms are needed. Today that program is really grassroots, and we are trying to fund it ourselves with them and us involved, but we just—we need more help, and we need more awareness of how helpful these apprenticeship programs are.

Mr. TRAN. I agree with that. Thank you for your testimony.

For both Ms. Jackson-Furman and Ms. Westbrock, for more than 30 years the Universal Service Fund has been a critical federal program for working families, ensuring millions of Americans have access to broadband in the most rural and underserved areas in California and across the country.

Reliable high-speed internet connection isn't a luxury, and it is vital to how modern small businesses operate. Thankfully, SCOTUS upheld the constitutionality of the program, but now Congress must look toward improving the program.

Ms. Jackson-Furman first. In your respective written testimony, you highlighted the importance of Universal Service Fund. Could you first discuss how Congress could modernize and strengthen the Universal Service Fund and ensure it continues to meet the evolving connectivity needs of all Americans?

Ms. JACKSON-FURMAN. Yes. Thank you.

So major modernization does need to happen in the funding mechanism piece of that. So the base needs to be broadened for who contributes to the fund. Right now the majority of the funding comes from long distance services on voice bills, and that pool of revenue is ever retracting.

And so the FUSF factor is exceeding 36 percent. So I think it will go to 39 percent for the fourth quarter of this year. That is not sustainable.

So expanding the base contribution to edge providers and all ISP providers would bolster the fund, make the support predictable for the foreseeable future, and help us all operate with confidence when we are making 20-year investments.

Mr. TRAN. Amazing.

Ms. Westbrock, anything to add?

Ms. WESTBROCK. I would just add that the modernization of USF is critical for our rural communities to have that support.

Mr. TRAN. Thank you so much for your testimony and for all the witnesses for being here.

Mr. Chairman, I yield back.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Mr. Downing from the great State of Montana for 5 minutes.

Mr. DOWNING. Mr. Chair, thank you very much for holding this. Thank you, witnesses, for being here.

My home State of Montana is one of the least densely populated places in the country. We have really, really long roads, and we lag behind the rest of the country in broadband access. Only 73 percent of our households have access, which is below the national average of about 95 percent.

This lack of access sets back rural job creators competing in our modern economy. Reliable connection to the internet is crucial for small businesses to market their products, to recruit talent, and, you know, effectively run their operations.

So this one is to the whole panel. From your experience both as broadband providers and as rural businessowners, what impacts have you seen broadband expansion have on making rural small businesses more viable for outside investments? I will open that to the panel.

Ms. Westbrock?

Ms. WESTBROCK. Yes. I would like to specifically talk about Nature Link, which is a company that is in our service territory. They are a small resort, and they have the ability to hold corporate functions there. When they went into that area, the services that were there weren't what they needed to attract those large conferences to their resort, and so once we got the connectivity there, they were able to start booking those, and now we are bringing in those dollars into our local economy.

Mr. DOWNING. Thank you.

Anyone else? Mr. Todd?

Mr. TODD. Thank you, sir.

With regard to entrepreneurship, we have seen the ability for young people or folks that are interested in starting and growing a business facilitated by fiber broadband capabilities, and without that, they would be somewhere else. They choose our area because of the infrastructure that we have, the connectivity that they can have access to.

So small businesses grow. Entrepreneurs are able to start businesses, and it just continues to benefit the community as a whole.

Mr. DOWNING. Right. Thank you.

Mr. Vander Werff?

Mr. VANDER WERFF. Thank you, Congressman.

I think the thing to recognize from my perspective on this issue as a small business owner, you know, oftentimes when we think about business growth with internet connectivity, it is sort of the big sexy things like starting an e-commerce business or a web-based business.

But in reality, it is your local HVAC contractor. It is the local lumbar yard simply being able to go on LinkedIn and look for em-

ployees. It is being able to run payroll software. It's being able to order parts and services off the internet.

It is not necessarily a necessity to have for a business to be able to create a digital storefront. It is just a necessity of having a cloud-based business. I mean, you can't even get QuickBooks as a desktop software anymore. It is all cloud-based, and if you don't have some kind of 5G or higher connectivity, it is not going to work.

Mr. DOWNING. Something to add, Ms. Jackson-Furman?

Ms. JACKSON-FURMAN. We had a seed company that was a large user of our data services, and they attracted outside investment, and they were bought by a much bigger company, a worldwide company. So that is opportunity. It brings opportunity for folks to grow when they have access to the worldwide stage to our fiber connectivity.

Mr. DOWNING. Right. I appreciate that.

You know, it is important to me that we have access for entrepreneurs that are in less served areas, which is, you know, a big part of my State, making sure that we have the connectivity and can attract the financing because that is, obviously, a key part to that.

So, you know, I introduced earlier this year the Expanding Access to Capital for Rural Job Creators Act trying to solve some of these problems, but a big part is this connectivity as well.

But in the interest of time, I am going to move on to a different topic on, you know, the impact of broadband on farming. You know, farming is a crucial sector in rural economies across our country, including, you know, in Montana. I am in the central and eastern part of the State.

Small farmers and ranchers are increasingly reliant on high-tech methods and machinery in order to remain competitive. Precision agriculture tools like, you know, GPS, autonomous equipment, drones, soil sensors, all of these depend on broadband for accessing data and operating effectively.

So I will start with Mr. Vander Werff. Has unreliable broadband limited your ability to adopt these tools on your farm in rural Michigan?

Mr. VANDER WERFF. It has created challenges for us to do so. You have to remember when we are creating data out in the field, we are creating terabytes of data at a time, and that data, even if it is remotely uplinked to a cloud-based server, as a lot of it is, you then have to be able to access that.

So even if I have great connectivity through cellular on the equipment, I still have to have a broadband connection at my office or this data is useless to me.

Mr. DOWNING. Right. We are seeing more and more demand for this. And, unfortunately, I could go deep into this, but I have run out of time.

So on that, Mr. Chair, I yield back.

Chairman WILLIAMS. The gentleman yields back.

I now recognize Ms. Goodlander from the great State of New Hampshire for 5 minutes.

Ms. GOODLANDER. Thank you, Mr. Chairman, and thank you to our witnesses for being here today for this important hearing.

We are all back from our districts. I spent 40 days and 40 nights pounding the pavement across New Hampshire, and the issue of reliable, affordable internet access came up pretty much everywhere I went.

In conversations with family farmers—and I am grateful that you are here today to help us dig in on that front—rural entrepreneurs, small businesses of all kinds, you know, in New Hampshire, in my district, a lot of the challenge comes from we see just a situation where we have got weather-dependent reliability when it comes to the internet.

We had an opportunity through the Bipartisan Infrastructure Bill, which paved the way for my State to really deliver broadband across the board. $191 million has been put on the table for the State of New Hampshire.

Our State, on a bipartisan basis, as we always work, put together a great 5-year plan. And just last month, changes to the BEAD program, which is really the lifeline for my State. To be able to achieve what we all want to see, which is universal broadband access that is reliable and affordable, the BEAD program is critical to that.

Ms. Jackson-Furman, I know you have applied for—and the other witnesses, have you all applied for BEAD grants or worked with the program?

So I just want to ask—and, Mr. Chairman, I would like to enter into the record a letter I wrote to Secretary Lutnick last month about this specifically. Thank you very much. It hasn't received a response yet.

We have an opportunity here with this $191 million in the State of New Hampshire. We've got a great plan. It was already approved. It is waiting for us and waiting for the grantees across my State who have gone through a lot of trouble to navigate complicated federal programs. And I am all for cutting the red tape and waste, fraud, and abuse wherever we can find it.

But Ms. Jackson-Furman, can you tell us a little bit about your experience with the BEAD program and what it means for the goal we all want to achieve?

Ms. JACKSON-FURMAN. Sure. Thank you.

The BEAD program is—the fiber preference was removed. I know I said that before, but that was a really large issue for us, providers like us in rural America, the fiber preference being removed.

While we think there is a place for all technologies, fixed wireless and satellite alike, fiber technology is considered the future-proof technology with the full scaleability and robust reliability that fixed wireless and satellite do not offer.

So it makes sense to spend the dollars in a program like BEAD to provide sure connectivity as opposed to taking a gamble on what might be, and so I think that creating a system where not everybody has access to the same technology is unfortunate.

Ms. GOODLANDER. Ms. Westbrock, can you talk a little bit about your experience with BEAD and what disruptions you have seen in this freeze on federal funds?

Ms. WESTBROCK. Sure.

So, the BEAD program has been complicated as a provider to navigate. We have spent many nights working on a BEAD application. We are recently preliminarily awarded the $20 million, but if that fiber preference wouldn't have changed, I believe that we would have been awarded much more than that.

We didn't apply for certain areas specifically because we knew that the match that we had would not be the match that we would need to have without being able to get a waiver. So we chose not to apply in certain areas.

Ms. GOODLANDER. We welcome all of your ideas on how we can make these programs work better.

I have got a bill, a bipartisan bill with Congressman Wied, the Office of Rural Affairs Enhancement Act. It is an office within this Small Business Administration. I wanted to—I have got 30 seconds left—ask our witnesses just if anyone has thoughts on how the SBA can be a more effective force multiplier and operator in helping to connect rural small businesses with what is theirs, these federal programs and funding streams. I would welcome your ideas since we are, after all, the Small Business Committee.

Ms. JACKSON-FURMAN. I will jump in here.

So I think that we would ask that individually, as Congressmen and women, whenever the contribution reform vote comes up in Congress, we need your help in order to have contribution reform so that USF remains sustainable in the foreseeable future.

As far as the Small Business Committee, I don't have anything to ask right now, but as Members of Congress I do.

Ms. GOODLANDER. Thank you very much.

I yield back, Mr. Chair.

Chairman WILLIAMS. The gentlelady yields back.

And I would like to thank our witnesses for their testimony and for appearing before us today. You all did a really good job. Your hometowns and States should be proud of you.

Without objection, Members have 5 legislative days to submit additional materials and written requests for the witnesses to the Chair, which will be forwarded to the witnesses. I ask the witnesses to please respond promptly.

And if there is no further business, without objection, the Committee is adjourned.

[Whereupon, at 11:35 a.m., the committee was adjourned.]

APPENDIX

Statement by

Kristi Westbrock

Chief Executive Officer/General Manager

CTC – Consolidated Telephone Company

Brainerd, MN

Before the

United States House of Representatives

Committee on Small Business

Full Committee

Hearing on

Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Business

September 3, 2025

Introduction

Chairman Williams, Ranking Member Velázquez, and members of the Committee, thank you for the opportunity to participate in today's hearing, which focuses on the importance of how rural broadband connectivity can revitalize small businesses.

I am Kristi Westbrock, CEO and General Manager of CTC – Consolidated Telephone Company, headquartered in Brainerd, Minnesota. I am a native of Browns Valley, Minnesota, with a population of 700. I grew up in a small town with my Mom, Dad and sisters. My graduating class was 26 students, and everyone knew everyone by first name. That grounded me in my passion for rural America. Today, I live in Merrifield, Minnesota with my husband Mike and daughter Emily. We are active in our communities, working with organizations like the Brainerd Lakes Economic Development Corporation to drive economic vitality, the Initiative Foundation that empowers people in Central Minnesota to build vibrant communities, and Smiles for Jake, a mental health and suicide prevention nonprofit. I have been with CTC for over 17 years, bringing 25+ years of experience in telecommunications. CTC is a full-service technology advisor serving central and northern Minnesota for the past 75 years. With our fiber optic network, we can offer our members fast and reliable internet, phone, and television services, as well as business phone systems and IT services. CTC is a cooperative, and we live by our mission: "*To empower our members, employees, and communities through exceptional service and life-changing technology solutions for a sustainable future.*"

Serving our communities is not merely part of our mission—it defines who we are. Meaningful connections extend beyond technology; they are founded on trust, support, and consistent engagement. We believe that investing in the communities we serve fosters growth, resilience, and long-term success. Through initiatives such as sponsoring local athletic programs, collaborating with schools, and establishing our own nonprofit organization, CTC Cares, we demonstrate our commitment to making a positive impact that extends well beyond providing internet services.

CTC is proud to be part of the Smart Rural Community℠ program, administered by NTCA–The Rural Broadband Association. As a locally rooted small business with 97 full-time employees, we serve approximately 21,400 members across 1,449 square miles. Our commitment to improving connectivity also extends beyond our own network—we actively build partnerships with electric cooperatives, tribal entities, and other organizations across Minnesota. By leveraging statewide transport networks, we're able to collaborate with businesses of all sizes to meet their broader communications needs and address connectivity challenges head-on.

I should also note that CTC is one of many small businesses based in rural America that long ago sought to address their communities' needs for better connectivity and continue to deliver on that mission today. For example, we are a member of NTCA. This association represents approximately 850 rural, community-based broadband providers that deploy cutting-edge networks and offer advanced communications services in deeply rural communities. These operators collectively serve less than 5 percent of the United States' population but nearly 30 percent of its landmass. Rural providers, such as CTC, operate in communities that have been left behind because they were too sparsely populated to make a regular business case.

Importance of Broadband Connectivity for Small Businesses and Rural Communities

While the economics of operating in these very rural areas tend to make them likely candidates for being unserved or underserved, the benefits of a reliable broadband connection can mean the world to these communities. Investing in rural broadband can have far-reaching effects for both urban and rural America, creating efficiencies in healthcare, education, agriculture, energy, and commerce, and enhancing the quality of life for citizens across the country. For example, with a shortage of teachers in many areas of rural America, schools must rely on high-speed connectivity to deliver interactive video instruction for foreign language, science, and music classes. Similarly, telemedicine applications can help bridge the divide in rural America, enabling real-time patient consultations and remote monitoring, as well as specialized services such as tele-psychiatry. And, most importantly for the specific subject of today's hearing, robust and reliable broadband access can promote substantial opportunities for small businesses founded in or looking to relocate to rural areas where they can make a difference.

Indeed, fast, high-capacity broadband in rural areas promotes business growth and creates jobs. For example, Leedrick Studios, a cutting-edge video production and marketing company in Hibbing, Minnesota, saw an immediate boost in its processes and production efficiency after having a robust broadband connection. Leedrick had been previously served with a spotty, less reliable connection, but we were able to help the company achieve more for its clients. Jim Lee from Leedrick Studios has stated, "In our fast-paced industry, where every second counts and digital connectivity is paramount, CTC's unwavering reliability has been a game-changer. It's the bedrock upon which we've built our enhanced operational efficiency. CTC hasn't just met our expectations; they've redefined them. Their service is more than great-it's essential for businesses looking to thrive in the digital age. Our transition has been transformative."

Of course, in addition to the direct benefits for individual small businesses, broadband helps empower economic development for communities as a whole. For example, CTC partnered with Calix to deliver a major connectivity upgrade for the Brainerd Lakes Regional Airport. The project had an immediate impact on travelers and employees by providing an improved airport experience. The upgraded system not only delivers advanced connectivity, but it also strengthens the Brainerd Lakes Regional Airport's role as a modern, connected regional hub. Tyler Glynn, Executive Director of the Brainerd Lakes Economic Development Corporation, shared, "The ability to work and communicate at the airport is critical to this area's continued economic growth. CTC's investment in the managed WiFi system at the Brainerd Lakes Regional Airport provides all those who use the airport for business, travel, dining, and employment with a reliable service, which will continue to drive economic impact in the Brainerd Lakes Area."

These are just a few sample success stories showing how we have been able to contribute to our community and how a reliable connection can impact rural businesses and economic growth and vitality. However, we also have much more work to do. This is where public policy plays such an important role in helping to build and sustain broadband in rural markets that would not otherwise justify such investments and ongoing operations.

Barriers to Rural Broadband Deployment

Building broadband networks is capital-intensive and time-consuming. Indeed, even as construction hurdles like lengthy permitting processes and navigating red tape can be significant barriers, the primary challenge of rural network deployment is simply making a business case at all for constructing networks and delivering services across hundreds or thousands of miles where the population is sparse and the terrain is diverse. Even when and where networks are built, they must be maintained over those hundreds or thousands of miles. This maintenance requires skilled technicians who regularly travel long distances to make service calls and customer service representatives trained to deal with questions about router and device configurations in ways that were unimaginable for "telephone companies" years ago.

Moreover, even the best local or "last mile" networks in rural markets are dependent upon "middle mile" or long-haul connections to internet gateways dozens or hundreds of miles away in large cities. Reaching such distant locations is expensive, and as customer bandwidth demands increase – moving from Megabytes to Gigabytes to Terabytes of demand per month per customer – so too does the cost of ensuring sufficient capacity to handle customer demand on those "long-haul" fiber routes that connect rural America to the rest of the world.

All these factors make the delivery of broadband in rural America an ongoing effort that requires sustained commitment. We will miss the mark as a nation if we treat the broadband challenge as a one-time declaration of "success" just for the very preliminary act of connecting a location. After initial construction of rural broadband networks, much work remains to ensure consumers and businesses can adopt and make effective uses of networks, and to upgrade and sustain those networks over time to keep pace with consumer demand and small businesses' needs – this undertaking is where public policy plays an important role in helping both to build *and* sustain broadband in rural markets. This is where, as I will discuss below, federal policy with respect to broadband funding – and especially universal service – becomes critical.

But before turning to the important discussion of how we fund and then sustain networks and services in deeply rural areas, I do want to discuss permitting and the various approvals needed simply to get network construction work underway. Infrastructure investment depends on prompt acquisition or receipt of permissions to build networks. Roadblocks, delays, and increased costs associated with permitting and approval processes are particularly problematic for providers of service in rural areas. The review procedures can take substantial amounts of time, undermining the ability to plan for and deploy broadband infrastructure. Obtaining reasonable terms and conditions for attaching network facilities to poles, crossing railroads, historic property review, and environmental reviews can result in long delays and costly fees for providers seeking to build out networks in unserved rural communities.

There has been strong bipartisan recognition for years that lengthy review processes are slowing down broadband deployment—particularly in regions with short construction seasons. In Minnesota, even a brief delay can push projects back by an entire year. These setbacks also increase costs, as unpredictable timelines make it more challenging to secure contractors and maintain work on schedule.

One recent project illustrates the problem clearly: it took more than six months to secure the soil testing permit required to submit its Environmental Review (ER). By the time both federal and state reviews are completed, this single project will have been delayed nearly two years—leaving rural communities without service in the meantime.

Railroad permitting creates another major obstacle. While a Minnesota state statute has improved the process locally, railroads operate under inconsistent rules and often charge excessive fees for access or services. Establishing a standardized process with clear timelines and predictable costs would dramatically improve planning and deployment efficiency.

The Energy and Commerce Committee made significant progress last Congress by examining these issues closely and considering legislation to address them. Representative Buddy Carter's "American Broadband Deployment Act," for example, proposed streamlining review requirements—particularly for projects along existing, previously disturbed rights-of-way. CTC and other broadband providers across the country would strongly support renewed efforts in this Congress to modernize these processes and speed delivery of high-speed internet to the communities that need it most.

Broadband Funding Programs

Grants

Grant programs also play an important role in rural broadband deployment. To be clear, however, grants by themselves are not enough by themselves to do the job. It takes a mix of community commitment and private capital to build networks as well, and in many of the rural areas where terrific broadband already is in place, those networks were built not by leveraging grants, but rather through a mix of private capital and loans.

Nonetheless, CTC has also actively sought in recent years to leverage funding from the Minnesota Broadband Program, The ReConnect Program, the Community Connect Grant Program, The Tribal Broadband Connectivity Fund, and U.S. Economic Development Administration grants and other federal, state, and local programs. These programs have been successful in providing capital to help our company make the business case for expanded investment into unserved and underserved areas. Over the past eleven years, CTC has been awarded over $50 million in grant funds and has provided matching funds of nearly $22 million for those projects. Of the total $72 million in projects, CTC has funded approximately 31% of the cost through its own capital.

However, even with grant approvals, we often face delays in receiving funds. Outdated application procedures for specific grant programs create additional roadblocks for broadband deployment. Even for providers like CTC, with a proven track record of serving members and delivering exceptional service, the current process can be cumbersome and inefficient. Grant applications are often time-consuming, requiring extensive documentation and repeated responses to the same questions, with little consistency from one program to another. Moreover, processes can vary widely across agencies, leading to confusion and delays that slow project planning and execution. These inefficiencies make it more difficult to move projects forward quickly and add unnecessary administrative burdens that divert resources from actual deployment efforts. Streamlining and

standardizing these procedures would allow providers to focus on what matters most: connecting communities that are still waiting for reliable broadband.

While not directly related to grants, another administrative challenge worth noting arises out of audits conducted by the Universal Service Administrative Company (USAC), which helps the FCC in overseeing the use of federal universal service funding – a separate set of programs aimed at supporting sustainability and affordability of rural broadband that I will describe further below. As a small business, the time commitment for CTC associated with working through these audits was significant—over 100 hours spent gathering data, attending meetings, and managing related expenses. Compounding the issue, USAC hired an outside firm to perform the audit that had limited knowledge of the broadband industry. Much of our initial effort was spent educating the auditors about our industry, the equipment we use, and our operational processes. In this instance, the audit focused on supply chain compliance, specifically to confirm that no banned equipment was present in our network. While a simple one-day visit to inspect our infrastructure could have satisfied this requirement, we instead spent months reviewing financial records to prove the absence of equipment that was never part of our network. Streamlining audit procedures and leveraging industry expertise would make these processes far more efficient and less burdensome.

Experiences like these highlight why it is so critical for large-scale federal programs, such as the Broadband Equity Access and Deployment (BEAD) program to implement clear, efficient processes. BEAD is the grant program that obviously has captured the most attention in recent years. If executed effectively, BEAD should provide substantial capital to help narrow, if not eliminate, persistent availability gaps across the country. During the "Benefit of the Bargain" round, NTIA took several much-welcomed steps to eliminate regulatory barriers and speed up implementation, and we are now starting to see several states submitting their final proposals to NTIA following that announcement. We have seen a variety of proposals that take different strategies to benefit the needs of their communities.

Given the challenges we face, it makes sense to use every tool in the toolkit to achieve the BEAD program's mission. We will not get the same kind of networks everywhere given challenges in terrain, density, and other factors that affect the economics. But this does not mean we should settle for the lowest-common denominator either. A way to think about this is that certain tools are better suited for certain jobs than others. Our strategy for broadband for rural communities needs to be similar. If we want our rural communities to remain competitive in economic activity and quality of life with urban and suburban counterparts and in an increasingly interconnected world, we need to build for the long-term wherever feasible, while still leaving room to pick the right technological solution for the specific challenge presented. Put another way, for small businesses in rural America to be "wired for growth" as this hearing title suggests, we should always be thinking through how to give rural communities access to broadband that is built to last wherever we can.

Finally, as we take stock of how grants can help, it cannot be forgotten that federal grants are considered taxable as income under current law. With so much federal investment in broadband deployment, taxing broadband grants will dramatically reduce the impact of programs like BEAD, and likely leave the hardest-to-reach communities without connectivity. Due to the "market failure" nature of many rural areas, it is critical that every grant dollar for broadband go toward network deployment. Instead, currently, a significant portion of those funds will go back to the government

in the form of subsequent tax payments on the grants. The "Broadband Grant Tax Treatment Act" has been introduced in both the House and the Senate to reverse this course, and I would strongly encourage its passage to ensure that the benefit of the bargain arising out of these grants goes fully to the customers and communities being served rather than simply being returned in some part to the government itself.

Universal Service

As I mentioned earlier in my testimony, the continued operations, maintenance, and sustainability of a network and the affordability of services in rural areas can present a significant challenge. This is where the FCC's Universal Service Fund (USF) has the greatest impact. Even if federal funding is available to help with construction capital, we still need to recover our matching investment, keep rates affordable for consumers and small businesses, and maintain our operations. In some rural areas, customer revenues may be sufficient by themselves to make this possible, but in many other rural areas, substantial distances, low densities, and challenging terrain undermine the business case for investment and ongoing operation of a broadband network. To address such concerns, universal service policies have been a cornerstone of communications in the United States for over a century, and the USF remains essential today in promoting the deployment of increasingly advanced networks in rural areas and making voice and broadband services more affordable for rural and low-income consumers and schools, libraries, and rural healthcare facilities.

Over the past several years, the USF programs have been under attack, with a group asserting in court after court and before the FCC that the way in which Congress chose to fund the programs was unconstitutional. Fortunately, the U.S. Supreme Court recently confirmed the constitutionality of the program, but now we need to turn back to a more focused and productive debate over how to update the USF contribution mechanism. Currently, contributions to USF are collected largely through assessments on legacy telecom services. As users migrate, however, from legacy services to advanced offerings like broadband, this decline in the "contribution base" had led to a steady increase in the contribution factor over the past twenty years – even as the overall USF budget has been relatively steady over this period. To achieve and sustain core statutory and related public policy objectives related to universal service, it is essential that policymakers act to ensure: (a) that contribution responsibility is shared reasonably and equitably among all users of the underlying networks that universal service seeks to promote; and (b) that all those that benefit from broadband networks help to recover the costs of deploying and operating them. Thankfully, there is a bipartisan group of lawmakers from the U.S. Seante and House of Representatives that are looking to address this very issue, and I hope ultimately that all members of Congress will support these leaders' efforts to put our nation's critical universal service mission on more sound footing.

Mapping

One other issue I would like to flag for monitoring as Congress considers how to improve broadband access is the data used to make important funding and policy decisions. The National Broadband Map ("NBM") is critical in such decision-making, but it still falls short far too often in capturing facts on the ground accurately. Since the passage of the Broadband DATA Act, the FCC has made substantial strides to create and try to improve the NBM, but structural problems persist. We hope that the FCC will take lessons learned from what we have seen in the map to date and consider

improvements in reporting and challenge processes to make the map more reliable and realistic given its prominence in funding and policy decisions.

Some recommendations we think would help address the current flaws in the NBM reporting and challenge processes are:

1. Revise reporting standards to reflect proven technological capabilities on an objective basis.

2. Create public "heat maps" highlighting where numerous challenges and crowdsourcing concerns arise in an area or where coverage claims look questionable.

3. Enable greater use of performance data to inform challenges.

4. Apply meaningful consequences for chronic overreporting of coverage.

5. Do not reduce or eliminate broadband funding for an area based upon coverage claims unless, under objective technical standards, the reporting provider can in fact serve *every* customer in that area, rather than merely claiming to be serve *any* of them.

Conclusion

Community-based small businesses like CTC are committed to our customers and the communities we serve, and our services are important inputs to the success of local small businesses and our regional economies. Given our experience and track record of success, small community-based providers should be seen as critical components of any strategy seeking to achieve and sustain universal service in the United States. I thank the Committee for its leadership and interest in all these issues and look forward to working with you all to ensure all Americans experience the benefits of broadband over the best possible networks both today and for the decades to come.

Written Testimony of Jimmy Todd
CEO and General Manager
Nex-Tech

Hearing on
"Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses"
before the Committee on Small Business
United States House of Representatives

September 3, 2025

Thank you, Chairman Williams, Ranking Member Velázquez, and members of the Committee for the opportunity to appear before you today on the importance of fiber broadband for rural communities. My name is Jimmy Todd, and I am the CEO and General Manager for Nex-Tech, a local co-op that provides broadband to communities and small businesses in rural Kansas. Headquartered in Lenora, Kansas, Nex-Tech has 33,000 customers, serving over 11,000 square miles from the northwest to the central part of the state.

I have close to 40 years of experience working in the technology and telecommunications industry. My career has been dedicated to ensuring rural communities have access to the best in telecom, broadband, and precision agriculture. I was a gubernatorial appointee to the Next Generation 9-1-1 Coordinating Council and Team Kansas under the state Department of Commerce, focusing on community and economic development efforts across the state. I was also appointed to the Precision Ag Task Force of the Federal Communications Commission (FCC), co-authoring a comprehensive report on related connectivity and technology needs on November 6, 2023. I also currently serve as a member of board of directors for the Fiber Broadband Association. In addition to my experience in the telecom industry, I am also a proud Veteran with 21+ years of service across the U.S. Navy, Army, and Army National Guard.

As someone who lives in rural Kansas, I've seen first-hand how robust fiber broadband transforms small businesses and entire communities. Broadband is more than a utility—it's vital economic infrastructure that connects all of us. With robust connectivity, rural communities can attract new

businesses, support entrepreneurs, and retain their workforce—including young people who often leave rural areas in search of opportunity.

For agriculture, fiber broadband unlocks precision tools that conserve resources, improve yields, and strengthen America's food supply chain. There are countless stories I can share, but one in particular exemplifies the difference broadband can make. Over a decade ago, my company was approached by a local dairy farm, McCarty Dairy, which had an opportunity to be a supplier for a national yogurt brand. In order to get the contract, they needed fiber connectivity. This farm was eight miles outside Nex-Tech's service boundary and would take an over nine-mile build to get fiber to their headquarters. Serving one customer that far away would never directly pay off on paper, but we also realized an opportunity like this in a rural area doesn't just impact one farm, it impacts everyone. We figured out a plan to get them fiber and, as a result, they won the contract. Since then, that little dairy farm almost tripled in size and expanded their business into two other fiber-connected locations. Today, through fiber-based technologies, they monitor the health of 32,000 cows, control the milk processing and condensing plant, and use robots to assist with the daily milking of 10,000 cows. This is a huge success story for a small, rural business. But this isn't a success story for just that farm—because of that contract they created local jobs, sustained family livelihoods, and brought economic growth to the entire community. That's the difference between having fiber and not.

In many rural communities, agriculture is the primary industry and many of Nex-Tech's customers operate small businesses in this space. When I was a child, the Farmer's Almanac was the only source of truth, but Ag Tech and Precision Agriculture changed the game on how to manage and operate successful farms and ranches. In farming, data helps increase yields, but also appropriately mitigates the inputs needed for the advanced yields and that is also good for our environment.

Today's farms use a variety of sensors, automated machinery, automated irrigation, and in some cases, as I previously mentioned, robotic labor. The data throughput varies by technology, but where

a sensor may be low data, a drone with high-resolution cameras may require extremely high data throughput. In many rural areas, connectivity has been a challenge, limiting their ability to take advantage of Ag Technology. As fiber has reached the farms and ranches, it has enhanced their ability to embrace new technology that will make their operation more productive and profitable. The Last Mile fiber network is needed to facilitate the high-functioning Last Acre network reaching across the acreage of our farms and ranches.

While there are plenty of success stories, small businesses and cooperatives still face burdensome permitting processes that delay builds and discourage investment. Permitting delays drive up costs, waste resources, and create unnecessary administrative hurdles. Congress can help by streamlining these processes so providers can deploy fiber faster and more efficiently.

My company was the first in the nation to bring fiber infrastructure to a rural exchange. We received a lot of criticism for gold-plating the network as a waste of money, but I am so glad we were not dissuaded from our belief in fiber and the potential it would provide to our communities and rural service areas. Fiber is the “do it once, do it right” investment—future-proof infrastructure that will support AI, smart agriculture, telehealth, and other innovations for decades.

According to the Center on Rural Innovation (CORI), rural counties with broadband adoption rates above 80% experience significant economic advantages compared to counties with low adoption. These high-adoption counties see 213% higher business growth, while similar counties with low adoption are losing businesses. They also experience 10% higher self-employment growth, driven by lower barriers to starting a business, better access to global markets, and improved ability to conduct research and connect with essential resources. Broadband adoption also correlates with significantly more business startups by rural entrepreneurs. From 2020 to 2022, counties with high adoption saw 18% higher per-capita income growth—an average increase of nearly $500 per resident each year. Finally, these counties recorded 44% higher GDP growth, underscoring how

broadband access strengthens local business environments and drives sustained economic growth and innovation.

I highlight these points because our work is far from finished. According to FCC's Section 706 report "as of 2022, fixed broadband was unavailable to 24 million Americans." Thanks to the bipartisan efforts of Congress to improve broadband mapping—and the leadership of the FCC and National Telecommunications and Information Administration (NTIA) in identifying where critical infrastructure is needed—we are making real progress toward closing the digital divide. But as we move forward, it is essential to prioritize the technology the private sector overwhelmingly relies on for its utility, reliability, and long-term value: fiber. Fiber is not just another option; it is the foundational infrastructure for copper, coax, fixed and mobile wireless, and even satellite networks.

I urge Congress to ensure federal broadband funding continues to prioritize fiber—the most reliable, scalable, and cost-effective technology. Further, Congress should cut red tape. Streamlining permitting will help rural America benefit faster. Finally, Congress should ensure broadband is affordable for all Americans.

Once again I thank this Committee for holding this important hearing and inviting me to testify, and I look forward to your questions.

MICHIGAN FARM BUREAU

Friday, August 29, 2025

To the Honorable Members of the House Committee on Small Business

Good morning, Chairman Williams, Ranking Member Velazquez;

My name is Jeff Vander Werff, and I am visiting you this morning from the State of Michigan, where my family and I operate a farming and agribusiness operation near the town of Sparta. Like many Americans, we depend on reliable internet service as a part of our daily lives, and in the wake of the Covid-19 pandemic, that need has only become more acute. Thank you for the opportunity this morning to share some thoughts with you on this important topic.

As a small business owner and farmer, the internet is a part of our daily lives. From the connectivity of our precision agriculture software to the use of our cloud-based agribusiness billing systems, reliable high-speed internet is a necessity. The lack of infrastructure, however, has made that more challenging as our connected world evolves. It seems a weekly occurrence in our community Facebook group that someone is asking if there are better internet options available for their homes and businesses. Sadly, there are often only one or two providers in the area, and the coverage is less than ideal. Our family has tried to be a part of the solution to this problem for years, by installing and hosting broadband internet equipment on our farms, utilizing our elevation and the 130-foot-high grain systems to boost signals to help more folks access high speed internet. And while private industry is making strides every day to improve this, there is much more work to be done.

We often hear the phrase “the last mile” when describing services in rural areas, whether it be the postal service, Amazon, or high-speed internet. This is where the need is greatest. And while innovations such as Starlink have helped tremendously, often they are cost prohibitive, putting a further

burden on rural America, where poverty levels can match those of our most populated cites. I believe there is a better answer.

Growing up, I often heard my Grandparents talk about how life-changing the Rural Electrification Act of the 1930's was, and how much life on their farms and rural communities improved. Today, we are at a similar inflection point, with part of our country living in the modern area while rural America lags. This is just another contributing factor in the decline of our rural towns and the "small town America" we all love. It isn't just about businesses or farms being able to access internet service, it's about lost opportunities for rural Americans in an increasing digital world. From education and job opportunities to simple things like a placing an order for a tractor part, families are being forced to make hard choices when it comes to where they live and where they want to raise a family. The increase in online and virtual work has made it more difficult for young Americans to plant their roots in the hometown that their families have lived in for generations, further hollowing middle America.

I thank you again for your time this morning to discuss this critical topic and welcome any and all questions from the committee.

Thank you.

Jeff Vander Werff

Written Statement of Karen Jackson-Furman
Chief Executive Officer
WK&T

Before the House Committee on Small Business

September 3, 2025

Chairman Williams, Ranking Member Velázquez, and Members of the Committee, thank you for the opportunity to testify today on the important topic of how expanding broadband access can ensure small businesses are able to thrive.

Introduction

My name is Karen Jackson-Furman, and I am the chief executive officer of West Kentucky & Tennessee Telecommunications Cooperative (WK&T), a rural telecommunications provider serving parts of western Kentucky, western and south-central Tennessee, southern Illinois, and north central Alabama. I've spent my career of more than 30 years in the rural telecommunications industry, and the last 9.5 with WK&T. Serving as a CFO, a COO, and now a CEO, I've seen firsthand the need for everyone to be connected – homes, schools, hospitals, clinics, churches, big businesses, and small businesses.

WK&T was incorporated in July, 1951. In September of 1952, the Company received a loan from the Rural Electrification Administration (REA) – today it's known as the Rural Utilities Services (RUS) – to provide telephone service to the citizens of west Kentucky and in Henry and Weakley counties in Tennessee. The service area was a territory that larger providers would not serve due to high costs and lack of population density. With this loan, construction of a modern, dial telephone network began in the spring of 1953. As a not-for-profit telephone cooperative, the company's goal was, and still is, to provide the highest quality, most technically advanced, and most dependable service available to its members, while providing the best customer experience possible.

Since those early beginnings, the cooperative has grown from 1,350 subscribers to over 33,000 subscribers – all receiving state-of-the-art telecommunications service over a 100% fiber network. The Company's service territory encompasses over 5,100 route miles and passes more than 57,000 locations. When new expansion projects currently underway are finished, that number will grow to exceed 70,000 locations.

WK&T has adapted to meet member needs over the last several decades, shifting to a full-fledged telecommunications company. We now offer reliable high-speed fiber internet connectivity, voice telephony services, streaming television, and security systems to a growing list of members.

Our cooperative is connected to the community because we're located in the communities we serve. We employ 109 people across the four states in which we operate, so I know, firsthand, the importance of broadband access to business health and broader economic development. Without it, the communities we serve – and others like ours – will continue to shrink and people will move to find more opportunities and access elsewhere.

High-speed internet continues to transform our world and is a necessity for full participation in modern life and economic competitiveness. It's considered critical infrastructure and is vital for rural communities and small businesses. When students, congregations, clinicians, and family bread winners were sent home during the COVID-19 pandemic, it put a spotlight on the need for broadband services. Students needed to attend school remotely. Employees needed to work remotely. Many needed to attend telehealth appointments. For others it was a lifeline to stay connected to loved ones or community when separated. At WK&T, along with other small providers like us, we've worked and continue to work to bring services to both the unserved and the underserved in our part of rural America.

Small Businesses and Broadband

WK&T isn't just a residential broadband/Internet provider. We are also a small business that provides vital services to other small businesses. We serve over 1,000 small businesses in Kentucky, Tennessee, Illinois, and Alabama. These businesses include local grocery stores, building supply companies, local hardware stores, funeral homes, furniture stores, farms, plumbing supply stores, masonries, clothing stores, and so much more. It almost goes without saying that without access to a robust Internet connection, it's virtually impossible for a small business to make it in today's world. And if small businesses aren't making it, America's overall economy will suffer. Last year, the White House noted that small businesses are "responsible for more than 40% of America's economic output and two-thirds of net new jobs."[1]

In rural towns particularly, an Internet connection is vital to small businesses. An Internet connection might make the difference between an entrepreneur opening a small business in town or relocating to a larger metropolitan area. Nashville, TN, is roughly 150 miles from our headquarters and is our closest large city. We hear regular testimonials from members that they are so happy to be able to live on the family farm and make a living rather than relocating.

A reliable high-speed connection also allows a small business to reach a market that isn't right around the corner. The more people that are connected to the Internet, the greater the market is. But it's not just about additional potential customers. A broadband connection can reduce costs for businesses by providing more choices in potential suppliers or expanding the pool of candidates for jobs and making the hiring process more efficient by making better matches between employer and employee. Having a connected community

[1] https://bidenwhitehouse.archives.gov/briefing-room/blog/2024/05/31/affordable-high-speed-internet-is-spurring-economic-growth-and-boosting-small-businesses/

also makes it more attractive for potential employees who might be reluctant to move from a more densely populated area to a rural one.

Fiber Optic Technology

It's not just any connection that will make the difference. We've chosen to deploy fiber optic technology to as many homes and businesses as possible. We want to make sure our communities are not just getting by today with "good enough" technology, but that they have a high-speed, robust broadband network that will provide opportunities decades from now.

Fiber is scalable and has capabilities that both meet the needs of today and the foreseeable future, with the ability to provide multi-gigabit, low latency, symmetrical service. There are also positive externalities beyond simply faster speeds to homes and small businesses. Fiber can support heavy users like schools, libraries, and health clinics and can also facilitate remote education, telehealth, and precision agriculture. All of these things enhance quality of life and the local economy in ways that less robust broadband will not.

Importance of Federal Broadband Programs

I'd be missing an opportunity if I did not give credit to several important federal broadband programs, without which WK&T would not be able to do what we do. As I mentioned earlier, the communities WK&T serves are small towns and remote farms – places where large national telecom providers have not traditionally served. The cost for WK&T to provide service to everyone in our service territory would be prohibitive without federal assistance.

We're able to do it, primarily, because of the federal Universal Service Fund (USF), administered by the Federal Communications Commission. USF has its beginnings in the Communications Act of 1934 and Telecommunications Act of 1996. The principles of reasonably comparable service at reasonably comparable rates among urban and rural

areas across the country has guided U.S. telecom policy for decades. Thankfully, the constitutionality of the FCC's USF program was recently upheld by the Supreme Court.

In WK&T's service area, we serve about 13 customers per square mile in a 2,465 square mile area. Because we have the opportunity to serve so few locations, charging each customer what it actually costs to provide service to them would make a customer's bill exorbitant, far beyond what customers pay in more densely populated areas. The Universal Service Fund covers a portion of the costs of our network construction so that our rural customers have access to comparable broadband service like you would find in such areas as the Dallas-Ft. Worth metro area or Brooklyn, NY, at comparable rates. However, USF doesn't just cover network construction, but also ongoing operations, maintenance, and upgrades, so we can keep our network on pace with what Americans in more urban areas enjoy.

In addition, grants from programs like ReConnect, created by Congress in 2018 and administered by USDA's Rural Utilities Service, have provided us opportunities to expand our network and service to more customers. WK&T has completed multiple network expansion projects both inside our incumbent service territory and in our expanding footprint in Kentucky, Tennessee, Illinois, and Alabama. WK&T and its partners have invested approximately $105M in fiber network expansion in the last 10 years. The following is a breakdown of that new investment:

- $41.9M was provided by state and federal grants
- $19.8M in the form of low interest Rural Utilities Service loans
- $18.6M from local county and municipal partners
- The remaining $24.6M was WK&T investment

In addition to what is listed above regarding completed projects, we have the following in progress:

- Investment in additional fiber network expansion = $73.9M
    - Of this, $46.5M will be provided by state and federal grants

- $5M in the form of low interest Rural Utilities Service loans
- $3.3M in county partnerships
- The remaining $19M will be additional WK&T investment

Even with all of that expansion, there are still those just beyond our network boundaries that are still not served. To continue our efforts to reach these residences and small businesses, we are participating in the Broadband Equity and Access Deployment (BEAD) Program created by Congress in 2021. We've been preliminarily awarded grant funds to help bring fiber connectivity to about 450 unserved or underserved locations in Tennessee and another 2,100 in Kentucky. We plan to build this network as expeditiously as possible.

Lastly, as I alluded to earlier, having a broadband connection is incredibly important, but it's also important that it be affordable. USF helps ensure that our prices remain competitive with more urban areas of the country, but even then, the cost of broadband is out of reach for some lower-income Americans. WK&T participated in the Affordable Connectivity Program during the COVID-19 pandemic, which provided a $30/month subsidy for certain low-income customers, but that program has expired. As Congress looks to modernize USF, finding a solution to the affordability question must be part of the discussion.

Conclusion

In conclusion, I'd like to share a few testimonials from the small businesses we serve:

- Tamara Bennett owns and operates Southern Adornments Décor in Calloway County, KY. Bennett teaches art virtually to about 1,700 people every month. She employs a staff of 11 people. She says, "If I'm teaching a class on a livestream, I can't afford to have any interruptions. There's no way I could run my business without fiber internet. It's been a godsend to have such good internet service."

- Brooke Riley owns and operates Re-Fabbed along with her husband, Brandon. Re-Fabbed is a DIY decorating blog which has grown to include an online boutique among other things in Graves County, KY. When featured in the WK&T bi-monthly member magazine in 2021, Brooke's blog had 852,000 followers and her Instagram page had 111,000 followers. The online business is possible through WK&T's fast fiber internet. "Every single thing we do is online, and it wouldn't be possible without fast internet," she says. "We'd have to move if we didn't live where we have fast internet."

- Sherrye Clark has been a WK&T member all her life. The 70-year-old Gibson County, TN, resident can still remember the days of picking up the phone to hear an operator connecting her to a caller or sharing a party line with several other households. As someone who is largely homebound, that connection is especially important to Sherrye. Using a wheelchair and unable to drive, she doesn't have many opportunities to get out. But with her high-speed internet service she doesn't have to feel cut off from the world. "It's important to me because I can stay in contact with everybody and feel like I'm still part of what's going on," she says. "I don't feel left behind because I can contact anybody at any time and talk to them privately or in a group. It's a big, big deal."

- Justin and Jason Ralph, owners of Ralph Brothers Farms in Graves County, KY, monitor all 24 of their poultry barns using WK&Ts fiber internet service. "We have high-speed fiber internet at all of our poultry facilities so they can broadcast to the mobile app on our cellphones," Justin says. "That way, we can remotely access our chicken barn any time we're away." That connection allows him to get notifications when variables like feed, water, or temperature are out of the ordinary. He can even raise or lower the temperature inside the barns remotely, turn lights on or off, and operate feed lines without having to be on-site. Justin also relies on WK&T internet for the security cameras that are installed on every barn.

- Michael Warren and Nassar Nassar, Ph.D., of Savant Learning Systems in Weakley County, TN, worked with Tennessee's Bethel University to develop one of the first online academic programs allowing police officers to complete most of their continuing education and required training without having to travel, saving both time and money. Virtual Academy provides training to more than 2,500 agencies in 30 states, serving sworn law enforcement and corrections officers, 911 professionals and civilian staff members. "This wouldn't be possible without the fiber internet we have through WK&T," Warren says. "Not only could we not operate our website efficiently, but we wouldn't be able to provide support for our clients. Access to fiber internet makes all the difference."

While I could go on and on relaying success stories of local wineries, a fresh water caviar company, Kentucky Lake resorts, restaurants, and farmers utilizing precision agriculture technology, I want to take a moment to mention the EF-4 long track tornado that struck WK&T's service territory on December 11, 2021, and the role my small business was able to play. This tornado began in Obion County, TN, and tracked across 11 counties in western Kentucky. Its 165.7-mile-long path length was the longest for a tornado in U.S. history. Tragically, 57 people were killed – 24 of whom lived in Graves County, KY where WK&T's headquarters is located. Because our fiber was 100% buried, WK&T's service was never interrupted. The connectivity we provide became a lifeline to those affected. Members could connect with loved ones to let them know they were safe. Businesses could keep their doors open to assist during the mayhem that followed the destruction. Most importantly, emergency services' connectivity was never interrupted, allowing them to do all they could to assist those in need, potentially saving lives.

WK&T's staff and our fiber network really showed out in the hours, days, and weeks to come. We relocated 8 businesses (approximately 150 employees) whose buildings were destroyed to our WK&T Technology Park, keeping their doors open and jobs local. The

tornado hit Mayfield, KY, after 9:00 p.m. on Friday night, and our employees worked around the clock to “build a bank” in one of our buildings, allowing a community bank to move in and operate fully on Monday morning at 8:00 a.m. It was a difficult time for our community, but local small businesses didn’t quit or leave the area. Many have rebuilt or are now rebuilding to continue their mission of serving small town, rural folks, and WK&T couldn’t be prouder to be doing the same.

Finally, I’d like to extend an invitation to each of you to come see us. We’d love to introduce you to our small business owners that rely on high-speed internet to run their successful businesses while living in an area they choose to live in, raise their families in, and make a difference in the lives of the customers they serve.

Thank you for the opportunity to testify, and I look forward to answering any questions you may have.

MICHIGAN FARM BUREAU

September 8, 2025

Congresswoman Scholten,

Thank you for the opportunity to elaborate on the technology we use on my family farm.

On my farm we allow a private company to affix a simple antenna and receiver dish to the highest platform of one of our grain elevator legs. This fixture does not interfere with any of our operations, and the only cost to us is that we provide power to a small router in our electrical building.

The cost in power is minimal, and in exchange we receive free internet service at that farm location and the dish is used to provide internet to a few of our neighbors.

As far as barriers to other farmers, I don't know of any regulatory barriers, as several farmers have similar arrangements in our area. The biggest barrier for this technology is that it only works in specific terrain and becomes costly if it is not working off existing infrastructure. The antenna and dish system works on a line-of-sight technology, so hilly terrain and trees can limit the viability of this tool. Furthermore, while this technology is cost efficient when mounted to pre-existing infrastructure like a grain elevator, in areas without a tall enough structure to support the antenna and receiver dish the added expense of building a 100ft tall tower increases project costs significantly.

Thank you for the opportunity to elaborate on this issue and I welcome any other questions you may have.

Jeff Vander Werff

House Committee on Small Business
Questions for the Record
September 3, 2025

Full Committee Hearing: "Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses."

Questions from Rep. Hillary J. Scholten to Ms. Karen Jackson-Furman

1. **My office received hundreds of letters from constituents last year when the Affordable Connectivity Program was set to expire. There were approximately 89 thousand households in my district that relied on this program, which provides financial assistance to low-income households who otherwise could not afford internet services. Can you describe how this program impacted rural broadband access specifically, and what alternatives people in my district were left with once program funding ended?**

The Affordable Connectivity Program offered $30/month in assistance to those qualifying for the program, which had a huge impact on the affordability factor for low-income households. During its existence, WK&T had 733 customers who took advantage of the ACP and were able to purchase broadband at lower cost. When the program was discontinued, many could no longer afford internet service and were disconnected either at will or due to delinquent payment.

For customers in WK&T's service territory, we are a registered Eligible Telecommunications Carrier and participate in the Lifeline Program for USF support. This program offers $9.25 in monthly support for qualified low-income households. That is the option remaining for those needing support.

As Congress debates modernizing the Universal Service Fund, it should look at updating the Lifeline Program, which currently provides a $9.25/month subsidy for telecom services. Creating a more generous program, closer to the ACP's $30/month, would require modernizing the USF contributions system as well.

2. I understand that recent changes to the BEAD program have made it so states are not required to impose a fee schedule for Internet Service Providers (ISPs). Until June of this year, ISPs receiving BEAD funds were required to provide a low-cost option, and states were left to define what low-cost would mean. Now, ISPs are required to define affordable rates for themselves. Are you concerned at all about this change and how consumers might see a difference in so-called "affordable" rates?

As the CEO of a small, independent, rural telecommunications provider, I understand the difficulties in making a financial model work when price caps are imposed and customer revenues aren't sufficient to maintain and upgraded (as needed to meet bandwidth demand) the network that grant dollars and private investment together have built.

Speaking from my company's perspective, we offer various broadband packages, the most affordable being $60/month for 300 Mbps symmetrical service. In the four states in which we operate, the original BEAD low-cost service options could have ranged from a low of $30 up to $87/mo. But when Congress and NTIA wrote the original BEAD statute and rules, they assumed a $30 ACP subsidy. The subsidy would have reduced the cost of WK&T's most affordable package by half, which would have allowed us to satisfy all four states' requirements. Obviously, without ACP the end cost to customers is going to be higher.

This brings us back to my response to question #1 above. Broadband providers need predictable, sustainable revenues to run the network. Affordability must be part of the USF reform discussion rather than requiring service providers to unilaterally bear the cost of low-cost service options.

3. **I recently visited the Krause Memorial Library, located in my district in Rockford, Michigan. I heard from several constituents who told me that reservable hotspots are the very first items off the shelves in many libraries. The Trump Administration issued a Policy Notice in June that upended countless projects nearing completion in rural communities, and delayed deployment in some cases by a year or more as they work to remain compliant for BEAD funding. How have these recent changes affected the status of your projects or the compliance of ongoing broadband projects in rural areas across the country, and how have you seen small businesses impacted?**

The largest impact rural providers have encountered was the removal of the fiber network preference in the June Policy Notice. The reworking of the BEAD rules in June has delayed funding because states were required to complete another bidding round under the new rules. We were fortunate enough to be approved for funding under the new rules, but ended up losing 321 of our previously applied for locations to satellite broadband provider. If the NTIA approves the current state plans, those locations will end up with lesser service than they would have under the previous plan because they'll receive satellite service rather than fiber.

Fiber is scalable and has capabilities that both meet the needs of today and the foreseeable future, with the ability to provide multi-gigabit, low latency, symmetrical service. There are also positive externalities beyond simply faster speeds to homes and

small businesses. Fiber can support heavy users like schools, libraries, and health clinics and can also facilitate remote education, telehealth, and precision agriculture. Satellite and fixed wireless technologies do not have the same capabilities, but are inferior service options that should not displace fiber deployment if a fiber network can be funded and built. Providing fiber access to some while satellite or wireless to others creates an uneven landscape and does not provide equitable access to all. It's a situation where some households will "have" while others will "have not."

ALIANZA PUERTORRIQUEÑA DE TELECOMUNICACIONES

WRITTEN STATEMENT FOR THE RECORD BEFORE THE U.S. HOUSE COMMITTEE ON SMALL BUSINESS

"WIRED FOR GROWTH: HOW EXPANDING BROADBAND CAN REVITALIZE RURAL SMALL BUSINESSES"

September 3, 2025

Pedro G. Andrés, Puerto Rican Telecommunications Alliance

September 3rd, 2025

Mr. Chairman Williams, Ranking Member Velazquez and Members of the House Committee on Small Business,

Thank you for the invitation to submit written testimony to the House Committee on Small Business hearing on Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses. We urge the Committee to move expeditiously to address the unique challenges facing Puerto Rico's broadband deployment. Despite the support from federal investment, broadband expansion, particularly in rural areas, remains paralyzed due to lack of access to utility poles, an unreliable and fragile electric grid, and high construction and operational costs. These barriers have been impacting the industry for many years prevent small businesses in Puerto Rico from accessing the resilient, high-speed broadband they need to grow, innovate, and compete. **We need decisive action to ensure that pole access is granted on reasonable and nondiscriminatory terms, and that broadband providers are able to deploy resilient, modern networks that keep Puerto Rico's communities, especially rural communities, and small businesses connected.**

The Puerto Rican Telecommunications Alliance (APT) is a non-profit entity that represents an industry with over 7,000 direct jobs across large, medium and small companies, as well as thousands of indirect jobs, with a positive economic impact on our Island amounting to billions of dollars. APT member companies provide both

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wireless and wireline service providers delivering high speed Internet access, television services, data networks, cloud services, cybersecurity and related information services for both residential and business customers. Our membership also includes key providers engaged in the construction and operation of communications infrastructure - such as tower, small cells, fiber optics, and other essential elements - that ensure Puerto Rico stay connected, resilient, and competitive in the digital economy.

We recognize the critical importance of access to resilient, reliable, high-speed broadband for small businesses, which are the backbone of local economic growth and innovation especially in rural areas. Expanding access in rural communities is especially vital, as it enables local entrepreneurs to participate fully in the digital economy, reach broader markets, and sustain the economic vitality of Puerto Rico's most vulnerable regions. The industry in Puerto Rico continues to face significant challenges in delivering this essential service—ranging from a near blanket denial of access to utility poles and rights-of-way, to high construction and maintenance costs, regulatory uncertainty, and the constant need to harden networks against natural disasters. These obstacles directly impact the ability of small businesses to grow, innovate, and create jobs, underscoring the urgency of collaborative solutions that support broadband deployment and sustainability.

Challenges in Broadband Deployment

(a) Access to Poles

The Federal Communications Commission (FCC) National Broadband Map shows that Puerto Rico is fully covered with high-speed internet. However, this coverage considers satellite Internet, which, while it can be a valuable option in certain areas, can come with technical drawbacks and limitations. These include high latency (experienced by customers as delay for data and voice communications), limited bandwidth, high cost and sensitivity to weather conditions. As a result, satellite service lacks the robust consistency that modern businesses, especially small enterprises, increasingly require. Therefore, it is imperative to continue investing in and deploying future proof broadband technologies that can evolve with growing demand for higher bandwidth and more resilient infrastructure. Examples include Fiber to the Premise (FTTP) and 5G Fixed Wireless Access for example, which offer the scalability, reliability, and adaptability necessary to support Puerto Rico's long-term economic growth, particularly in rural areas, where small businesses rely on dependable connectivity to remain competitive and foster community development.

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Puerto Rico historically has been, and continues to be, a high-cost jurisdiction with a very distinct set of challenges when it comes to broadband deployment. For decades, both the industry and local government have worked to convey to regulators and agencies the unique reality and the challenges that Puerto Rico faces, where geographic, economic, and infrastructural conditions, along with the elevated cost of importing telecommunications equipment and materials, drive disproportionately high costs and create significant barriers.

Puerto Rico sits squarely within what is commonly referred to as "Hurricane Alley", lying directly in the path of numerous storms and hurricanes each season. As a result, providers are required to continuously invest in hardening their infrastructure to ensure greater resilience and reliability. These efforts include burying hundreds of miles of fiber, – an important initiative, but one that is not economically feasible in many parts of Puerto Rico, particularly in rural municipalities and the mountainous center of the Island. In many communities, especially rural ones, aerial construction remains essential to achieve fast, cost-effective access to highspeed broadband. Unfortunately, in recent years the lack of access to Puerto Rico's utility's poles owned by the Government owned provider has severely hampered aerial broadband deployment. This barrier is not simply delaying progress – it is literally paralyzing expansion and leaving underserved communities, especially rural areas, without the connectivity they urgently need.

As is known, LUMA is an investor-owned utility, chosen to administer the Island's public electric power utility, including the Puerto Rico Electric Power Authority's (PREPA) transmission and distribution ("T&D") system. At present, among LUMA's responsibilities is the management and control of third-party pole attachments. LUMA is also responsible for replacing thousands of the Island's electric poles deemed inadequate to sustain hurricane force winds, which replacements are being funded in significant part by the Federal Emergency Management Agency ("FEMA").

Five years after the private operator took control of the public utility, almost all requests for attachments are denied and so, none of the major broadband providers in Puerto Rico have been able to attach fiber to these poles. That is unconscionable and shows a complete disregard for the economic wellbeing of Puerto Rico and the businesses depending on growing broadband to survive.

Since LUMA assumed the administration of the T&D system, it has consistently rejected between 90- 96% of pole attachment applications. This includes outright refusals of overlash applications for fiber optic cables and attachment of new cable, even in cases where pole loading analysis demonstrated that the overlash or new cable would

improve the condition of the pole. Furthermore, LUMA has also declined to apply the provisions of the National Electric Security Code ("NESC") that expressly permit attachments so long as the pole's condition is not worsened. Instead, LUMA routinely requires providers to pay to replace and upgrade aged, failing poles at an estimated cost of $10,000 to $20,000 per pole. In practice, this approach shifts to telecommunications providers the responsibility of upgrading the Islands pole infrastructure, drastically increasing the cost of every project and rendering most broadband expansion efforts economically unfeasible.

To make matters worse, Luma has unilaterally imposed a non-refundable fee of $95 per pole for each application. Given that broadband projects often require hundreds of poles, this model is economically unfeasible. For example, a provider submitting an application for a fiber run involving 500 poles would pay $47,500 in non-refundable fees—only to see approximately 5% of the poles approved. Recently, LUMA has offered an equally unfeasible alternative: reduce the $95 fee (without stating the new rate) if carriers purchase licenses for software that only LUMA requires and hire independent engineers to perform the pole analysis on LUMA's behalf. This approach has added months of delay, multiple layers of bureaucracy, and - in practice - delivered inadequate results. At least one provider has reported that its preliminary tests under this new process still resulted in fewer than 50% of poles being approved. Even when approval rates improve marginally, the burdens remain prohibitive. LUMA requires providers to identify every other carrier attached to a given pole and obtain authorization from each competitor before an application can move forward. In effect, LUMA's "solution" shifts its own responsibilities onto providers, forcing them to perform both their own work and LUMA's work, creating additional obstacles that make broadband deployment in Puerto Rico nearly impossible.

While LUMA has announced plans to upgrade 100,000 of the Island's poles over the next five years, this represents less than 20% of the Island's total pole inventory. If LUMA continues to block attachments until all the poles are replaced, broadband will not be extended in the immediate future, particularly in rural areas, leaving underground deployment as the only alternative, an option that is financially unfeasible not only for medium and small providers but even for the largest carriers. This issue is already having serious consequences, affecting all providers and customers in multiple areas where new poles cannot be installed and attachment permits have been denied by LUMA. Since LUMA assumed control of the T&D system in 2021, broadband deployment, especially in rural areas, has been effectively halted.

In light of these facts, LUMA has further entrenched its position by adopting a strategy of hiding behind the public ownership of poles that it fully controls—and will continue

to control for more than 20 years—to argue that the Communications Act and the FCC's pole attachment rules do not apply. Left unaddressed, LUMA's policies and practices will doom Puerto Rico to fall behind in the race to modernize, leaving rural communities and small businesses at a severe disadvantage in leveraging emerging technologies such as artificial intelligence and the Internet of Things. With the advent of these technologies, the world is racing to expand broadband speed and reach, not only to compete globally, but in many cases simply to survive.

(b) Lack of Power

The power generation and the energy transmission and distribution system in Puerto Rico are obsolete, aged, and increasingly unreliable. The Island experiences frequent blackouts and outages across multiple regions on most days, creating a constant state of uncertainty for businesses and residents alike. Rural areas, in particular, bear the brunt of these failures. In many communities, outages occur more frequently and last longer due to LUMA's inability to adequately maintain vegetation and clear plants near electric lines, leaving rural households and small businesses disproportionately affected. This persistent instability not only undermines quality of life but also limits economic opportunity in the very areas where robust infrastructure is most needed to bridge the digital divide.

Over the past twelve months, Puerto Rico has suffered three full island-wide blackouts in addition to numerous partial outages affecting large population centers. These recurring failures underscore the fragility of the grid and highlight the urgent need for systemic modernization. The consequences of this instability extend far beyond electricity. Broadband networks and other communications services, which depend on a stable power supply to transmit data and support critical connectivity, are placed under severe stress. Outages interrupt service continuity, degrade quality, and undermine public confidence in the reliability of essential communications infrastructure. This is particularly damaging in a digital economy, where businesses, schools, hospitals, and government institutions rely on uninterrupted broadband access to function effectively. The lack of consistent and reliable power only adds to the challenges discussed above but also increases operational costs. Despite these conditions, broadband and telecommunications providers have made substantial investments to ensure continuity of service. Companies have deployed backup generators, battery systems, redundant network paths, and other resiliency measures to sustain operations during total, partial, or regional blackouts. To keep these systems running, providers must secure reliable access to diesel and other fuels, deploy security personnel to protect generators and fuel supplies from theft, and constantly manage the logistics of restocking diesel. These extraordinary measures, while essential to maintaining connectivity, impose significant costs and divert resources that

could otherwise be invested in expanding and improving broadband networks. In fact, they add millions of dollars annually to the cost of operating and maintaining Puerto Rico's broadband infrastructure.

Without a reliable and resilient power system, the Island's broadband and communications sector will remain constrained, limiting Puerto Rico's ability to compete, innovate, and fully participate in the opportunities of the digital age. The U.S. Department of Energy recently underscored this reality in Order No. 202-25-1, in which the Secretary of Energy determined that an "emergency exists in Puerto Rico due to a shortage of electric energy, a shortage of facilities for generation of electrical energy and other causes". The Order further highlights that the electrical grid remains fragile due to decades of deferred maintenance, and insufficient investment, noting that recent investments have "provided insignificant improvement towards augmenting reliability and security to the grid" making providing broadband services in Puerto Rico more challenging and costly. The current state of the electric grid not only endangers public safety but also drives up the cost and complexity of delivering broadband and communications services–particularly in rural areas, which are significantly more vulnerable to outages than urban centers–thereby undermining federal and local efforts to close the digital divide and position Puerto Rico for long-term economic growth.

Federal and Local Programs

(a) Uniendo

After Hurricane María the FCC implemented the *Uniendo a Puerto Rico Fund* Stage 1 to restore voice and broadband service. *Uniendo a Puerto Rico* Stage 2 was a long-term project to provide voice and broadband service to 100% of locations in Puerto Rico by 2027.

While the process for *Uniendo* Stage 2 was competitive, circumstances have changed dramatically since the original bid was submitted. Covid, inflation, tariffs, changes in interest rates and backlog in the supply chain have increased the cost of the project exponentially. Nonetheless, the program is on track with it's deployment milestones.

(b) ACP

The Affordable Connectivity Program (ACP) was an FCC benefit program that helped ensure that households could afford the broadband they needed for work, school, healthcare and more. ACP was originally funded with $14.2 billion from the Infrastructure, Investment and Jobs Act legislation (Infrastructure Act). ACP's eligibility

criteria included being a Pell Grant recipient, or a participant in the SNAP, MEDICAID or Federal Housing Programs for example.

More than 660,000 households out of 1.2 million households in Puerto Rico benefited from the ACP program. The end of the program coincided with the lapse of the Emergency Connectivity Fund program which provided connectivity to students, teachers and library patrons for remote broadband access. This left many families without much needed access to high-speed broadband services.

The sunsetting of ACP meant the loss of the most effective mechanism to address affordability both in urban and rural areas.

We know there are ongoing discussions within Universal Service Fund working group on Lifeline reform and that different proposals have been submitted regarding ACP. We hope that the working group continues to look for an affordability alternative for low-income families particularly in rural areas.

We also believe that sharing the load with big tech companies is only fair to keep supporting the important work done with the USF fund. Big tech benefits immensely from the internet infrastructure and should help fund the program as USF costs rise.

(c) Municipal Wi-Fi Local Grant Program

In 2023, the Puerto Rico Smart Island Project allocated $50 million for the first phase of a program intended to establish multiple public locations in each municipality offering free Wi-Fi over a resilient, hardened network. The initiative had a two-fold purpose: to enrich the daily lives of Puerto Rico's residents and to provide reliable emergency connectivity during emergencies. The project was scheduled to be completed by the end of 2025, yet not a single municipality has been completed. The sole reason is LUMA's ongoing blockage of access to utility poles required to complete the buildout. As a result, awarded broadband companies remain sidelined, their warehouses full of equipment to deploy, while Puerto Ricans face yet another hurricane season exposed to unnecessary risk, potentially losing Internet and communication in their homes and being left without access to resilient, redundant, and hardened Wi-Fi networks in their municipalities.

(d) BEAD

The industry initially received the BEAD program with great hopes. Unfortunately, the execution of the program has been disappointing. The program as originally created by the Biden Administration did not allow Puerto Rico to use funds to deploy

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broadband networks as a result of the already-committed deployment funds under the *Uniendo a Puerto Rico Fund*.

The APT and its members were not part of any significant meeting where we could contribute information and data to impact the government's Proposal in a meaningful way. Furthermore, while the APT was the only nongovernmental member of the Broadband Board Advisory Council, we only learned about the content of the government's Initial Proposal when it was issued for comment. We were never involved in any meaningful meetings of the Broadband Advisory Council or with the executive committee. Recently the Advisory Council was dissolved pursuant to Executive Order No. 2025-031.

The government's proposal has three components, which it claims are "non-deployment" activities. Two of these focus on affordability and digital literacy. The other component of the Proposal, and the largest, focuses on an essential component of the physical infrastructure that supports broadband: underground conduit. The APT supports the two components of the Proposal that focus on affordability and digital literacy. As to the component of the Proposal that focuses on underground conduit, the APT wholeheartedly agrees with the suggestion of dedicating BEAD Program funding to address a critical issue impacting Puerto Rico's broadband infrastructure: resiliency. While we believe exploring the use of BEAD Program funding to subsidize projects that would increase the amount of buried fiber in Puerto Rico, particularly last-mile fiber, is commendable and worthy of consideration, the plan as it was presented was devoid of important details which could have been addressed from the outset if the APT and its members had been an integral part of the discussions that led to the crafting of the Proposal.

Recently the United States Department of Commerce issued the BEAD Restructuring Policy Notice in which is stated that it "rescinds approval of all non-deployment activities approved in Initial Proposals". While this certainly creates uncertainty, it also presents an opportunity for the local government to draw from the expertise and experience of the APT and its members to address the critical gaps in the Proposal. We look forward to meaningful and genuine stakeholder collaboration and participation with the local government in this process. Puerto Rico could risk losing a once-in-a-lifetime opportunity to direct BEAD funds were they are really needed, rather pursuing a plan devoid of detail and lacking the backing of the industry it's supposed to support.

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Conclusion

In conclusion, the people of Puerto Rico, particularly small businesses in rural areas, cannot afford continued delay. Broadband deployment is being obstructed by practices that transfer responsibility and costs to providers, restrict access to essential infrastructure, and undermine the effectiveness of federal and local programs designed to close the digital divide. Without intervention, Puerto Rico risks falling further behind in the global race to harness technologies such as artificial intelligence and the Internet of Things, while its small businesses struggle to survive. We respectfully call on this Committee and on Congress to act: to hold LUMA accountable, to ensure compliance with federal law and parity with the rest of the United States, to safeguard billions of dollars in federal broadband funding, and to guarantee that Puerto Rican small businesses and rural communities receive the modern, resilient broadband infrastructure they urgently need.

At the APT we work daily to help our members navigate the uncertainties the environment creates for businesses and to all Puerto Ricans, particularly those in rural areas who urgently need broadband service. We continue to be innovative and think outside the box to overcome these challenges, but government action is essential if we are to provide services quickly, and effectively to all Puerto Ricans. Only with decisive support can Puerto Rico remain safe, resilient, and competitive in the global economy.

We appreciate the Committee for holding this important hearing and its work to uplift the small business community and rural areas. Thank you for the opportunity to present this testimony. We remain at the disposal of the Committee for any questions or to continue supporting future work on this important topic. For any questions or additional information, please contact our Executive Director, Denise M. Berlingeri-Rivera, dberlingeri@alianzatelecom.org.

Regards,

Signed by:
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September 3, 2025

The Honorable Roger Williams
United States House of Representatives
Chairman, Committee on Small Business
2361 Rayburn House Office Building
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The Honorable Nydia Velázquez
United States House of Representatives
Ranking Member, Committee on Small Business
2069 Rayburn House Office Building
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Dear Chairman Williams and Ranking Member Velázquez:

Competitive Carriers Association ("CCA")[1] respectfully submits this letter for the record for today's hearing on "Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses." The majority of CCA's carrier member companies are small businesses themselves, whose employees live and work in the rural communities that they serve. Each day, these companies work to preserve and expand connectivity where it would not likely be available otherwise, including for rural small businesses, while facing the challenges of challenging terrain, construction seasons severely limited by weather, and sparse populations. CCA appreciates the Committee's focus on connecting small businesses to high-speed broadband connectivity, and urges continued focus on several issues as this important work continues.

- Universal Service Fund (USF). The USF, created by Congress and administered by the FCC, has provided critical support for connecting communities in rural and hard-to-reach areas, but updates are needed, especially regarding support for mobile connectivity. While the FCC has recognized the importance of USF support for both fixed and mobile services, support for mobile carriers to serve rural America has been largely frozen for over a decade and has not been tied to the actual costs to deploy and maintain service. In particular, as the wireless industry has matured and roaming revenue has decreased as part of the business plan to serve rural areas, support for operational expenses through USF is critically needed.
    - Indeed, Carolina West Wireless (CWW) recently petitioned the FCC to "begin the process of ensuring that mobile voice and broadband facilities constructed with federal high-cost support can be maintained going forward" with support for

[1] CCA is the nation's leading association for competitive providers and stakeholders across the United States. Members range from small, rural carriers serving fewer than 5,000 customers to regional and national providers serving millions of customers, as well as vendors and suppliers that provide products and services throughout the communications ecosystem.

operational expenses.[2] Over the years, CWW has seen its networks go from being the exclusive provider in 70 percent of its service area to now 38 percent. Providers like CWW used to be able to rely on three forms of revenue – customers, USF support, and roaming revenue. However, each of those sources has been declining. Now, CWW is subsidizing unprofitable sites that were built with USF support. Without additional funds, CWW will be required to shut sites down, resulting in a loss of coverage, education, health, and emergency services. CWW is far from alone as carriers focused on rural areas across the country face similar challenges and demands for operational support through USF. The FCC should grant CWW's petition and explore relief for the broader industry.

- Broadband mapping. Inaccurate or unreliable broadband coverage data continues to present difficulties for rural carriers. The FCC's coverage maps for mobile service, for example, can overstate coverage and remove areas that should receive support through programs like the USF from eligibility, risking not only further expansion of wireless coverage but even reducing coverage available today. This includes flawed proposals to use outdoor stationary coverage data to make decisions for programs to support mobility. Congress should provide oversight to prevent a "5G Gap" in the United States and to ensure mobile networks are available alongside fixed services to provide ubiquitous connectivity.

- Barriers to deployment. Congress should also consider ways to remove barriers to deployment, including updates to siting and permitting processes for broadband infrastructure. CCA members must secure permits from Federal, State, and local authorities, depending on the area, to deploy, maintain, and upgrade their networks. Current processes for acquiring the necessary permits from various entities can take months or even years, which presents significant burdens for small businesses. Efficient, manageable, and predictable permitting processes would help to promote deployment in rural areas, especially in Western States, where Federal Land Management Agencies control large swaths of land where services are needed, including along critical transit corridors. Congress should act to provide certainty and remove unnecessary costs, time, and challenges in the review process.

- Spectrum auction authority. CCA commends Congress for reinstating the FCC's spectrum auction authority, and Congress has a continued role to play to ensure that our nation's spectrum strategy enables industry innovation and leadership. As the FCC begins to auction more spectrum, it is vital to ensure that spectrum will be available for licensed, full power use by companies of all sizes and those serving rural America by requiring

[2] Petition for Waiver of Carolina West Wireless, LLC; GN Docket Nos. 09-51 and 20-32, WC Docket No. 05-337, WT Docket No. 10-208 at 3 (filed May 31, 2024).

appropriately sized spectrum licenses and sufficient bidding credits for small and rural carriers. There must be a long-term federal strategy to identify and reallocate spectrum for commercial use, with an immediate focus on mid-band spectrum. Wireless carriers need a clear understanding of potential spectrum opportunities as they plan their future auction and network strategies.

- Focus on mobility. While fiber deployment is essential for all communications services, Congress should ensure mobile wireless services are available to power how small businesses and consumers in rural America connect. Farmers and ranchers increasingly rely on wireless connectivity for smart equipment, sensors, and remote monitoring of everything from temperature, moisture, and humidity to soil and animal health. Wireless services also support small businesses through modern, digital payment and streamlined processing and inventory systems, as well as the constant connectivity that allows them to connect with customers, vendors and suppliers providing efficiency and easing workloads. These connections are needed for emergency alerts and will be essential to provide access to the latest emerging technologies, including new artificial intelligence breakthroughs.

CCA's members not only invest in their hometowns and connect their neighbors with the latest broadband services, they are also on the front lines to help their communities recover after disasters and emergency situations. Thank you for considering the importance of broadband connectivity for small businesses, and we welcome further discussion and collaboration to support ubiquitous connectivity.

Sincerely,

Tim Donovan
President and CEO
Competitive Carriers Association

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September 2, 2025

The Honorable Roger Williams
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The Honorable Nydia Velázquez
Ranking Member
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Upcoming Hearing: "Wired for Growth – How Expanding Broadband Can Revitalize Rural Small Businesses"

Dear Chairman Williams and Ranking Member Velázquez:

On behalf of the Defense Credit Union Council (DCUC) and our over 40 million members across the United States and around the world, I want to express our sincere appreciation for your leadership in addressing the needs of rural small businesses and veteran entrepreneurs. DCUC is the premier trade association representing credit unions serving military and veteran communities worldwide, and we are dedicated to ensuring that those who have served our country have access to the financial resources necessary to thrive in civilian life. We applaud the Committee's attention to the critical infrastructure challenges facing rural America, as well as the opportunities to strengthen access to capital for our nation's heroes.

We commend the Committee for convening the upcoming hearing titled *"Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses,"* scheduled for September 3, 2025. This hearing addresses a vital issue: the digital divide facing rural entrepreneurs. Reliable high-speed internet is no longer a luxury; it is a lifeline for small businesses to reach customers, access markets, and operate efficiently. Yet rural communities continue to lag in connectivity. According to the FCC, 17% of Americans in rural areas lack access to baseline broadband service, compared to only 1% of urban Americans. This gap in broadband access directly hinders the productivity and growth of rural small businesses – without broadband, it is harder to engage in e-commerce, manage supply chains, or tap into online services that urban businesses take for granted. In fact, recent research shows that rural counties with high broadband adoption see dramatically higher business growth (over **200%** more) than those with low connectivity, whereas communities without broadband access actually lose businesses each year. Clearly, expanding broadband infrastructure in rural America will unlock entrepreneurship, job creation, and economic resilience. DCUC's member credit unions, many of which serve rural and remote military communities, witness firsthand how improved internet access helps local businesses and enhances the delivery of financial services (e.g. online banking, remote deposit, and digital loan applications) to underserved areas. We strongly support efforts to bridge the digital divide in rural America as a means to revitalize Main Street businesses and communities.

Challenges in Access to Capital for Veteran and Rural Entrepreneurs
While investing in broadband will provide rural small businesses with new opportunities, we must also ensure these entrepreneurs have the capital to seize those opportunities. Here, we draw the Committee's attention to the unique challenges faced by veteran-owned small businesses, many of which operate in rural or underserved areas after our servicemembers return to civilian life. Veteran-owned businesses are a vital part of the American economy – **approximately 1.76 million veteran-owned businesses** employ about **5.3 million Americans** and generate nearly **$1 trillion** in annual revenue. Despite their significant contributions, veterans often struggle with access to credit and financing. Studies show that veteran entrepreneurs tend to apply for financing more frequently than their non-veteran counterparts, yet they are denied loans at disproportionately higher rates. Several factors contribute to this credit gap: many veterans have thin or limited credit histories due to frequent relocations and deployments, which can make it harder to qualify for traditional business loans. In addition, a significant number of veteran entrepreneurs rely on personal savings to fund their ventures, leaving them financially vulnerable and limiting their growth potential. These challenges have taken a toll – the share of U.S. businesses owned by veterans dropped from 11% in 2014 to just 8.1% by 2020. We should be alarmed that those who served our nation are finding it *harder* to launch and grow businesses back home. Removing barriers to capital for veteran entrepreneurs isn't just the right thing to do; it will bolster the economies of countless communities, from rural towns to bustling cities, where veterans bring leadership and innovation to the marketplace.

Credit unions – especially defense credit unions located on or near military bases – are uniquely positioned to support veteran and rural small businesses. Our institutions are mission-driven, member-owned, and deeply embedded in the communities we serve. Often, in rural areas and military communities, credit unions fill the void left by larger lenders by offering personalized small business loans, financial education, and mentoring. However, outdated regulatory constraints are **limiting the ability of credit unions to fully meet the needs** of veteran entrepreneurs and other small business owners in these communities. Chief among these constraints is the **Member Business Lending (MBL) cap**, an arbitrary limit set by law in 1998 that restricts the total amount of business loans a credit union can make to 12.25% of its assets. In practice, this cap means that even when a credit union has ample capital and a willing borrower – say, a veteran-owned startup needing a modest loan to expand – the credit union may be forced to turn that borrower away once the cap is reached. This one-size-fits-all limit does not reflect market realities or member demand in many communities. Notably, the cap's impact is felt most acutely by the very groups we are discussing today: **veteran-owned businesses and rural borrowers**. DCUC has long argued that the MBL cap disproportionately hurts veterans and rural communities by choking off a key source of affordable credit. Credit unions ready and willing to do more find their hands tied by an outdated regulation that puts an artificial ceiling on lending. Additionally, other regulatory hurdles – such as field of membership restrictions that can prevent credit unions from serving adjacent rural areas in need – further constrain our ability to reach underserved entrepreneurs. In short, while defense credit unions stand on the front lines of providing capital to military and rural communities, current law and regulations limit how effectively we can respond to the demand for small business financing.

Support for the Veterans Member Business Loan Act (VMBLA)
To address these barriers and empower veteran entrepreneurs, DCUC strongly supports H.R. 4867/S. 539, the **Veterans Member Business Loan Act (VMBLA)**. This bipartisan, bicameral legislation – introduced in the House by Representatives Vicente Gonzalez (D-TX) and Brian Fitzpatrick (R-PA), and in the Senate by Senators Mazie Hirono (D-HI) and Dan Sullivan (R-AK) – would amend the Federal Credit Union Act to **exclude loans made to veteran-owned small businesses from the credit union MBL cap**.

In effect, loans to veterans would no longer "count against" the arbitrary 12.25% cap, freeing up credit unions to lend more to veteran entrepreneurs **without increasing any systemic risk** to the financial system. This is a prudent, targeted reform. By carving out veteran business loans, Congress can unleash existing capacity in the credit union sector to support those who have served, all at no cost to taxpayers and with no reduction in safety and soundness.

We believe the benefits of the VMBLA would be immediate and profound. **Exempting veteran business loans from the cap would open the spigot of capital for thousands of veterans looking to start or grow a business**. According to a 2018 report by the SBA and the Federal Reserve, veteran-owned firms are more likely to be seeking credit, often in small-dollar amounts, yet are more likely to be denied – indicating a clear unmet demand. By allowing credit unions to meet this demand, VMBLA will help **veteran entrepreneurs secure the funding they need to expand operations, hire employees, and invest in their communities**. Over time, this will translate into more local jobs and economic activity. In particular, rural areas (which have high concentrations of veterans and fewer alternative lenders) would see a boost – DCUC anticipates that **lifting the loan cap for veterans will spur new economic opportunities in underserved rural communities** that have been starved of capital. This is truly a win-win: veterans gain access to opportunity, and communities gain the businesses, services, and jobs those veterans create.

In addition to VMBLA, we encourage the Committee to explore complementary steps to improve small business financing for veterans and rural communities. Modernizing SBA loan programs – such as streamlining the 7(a) loan process and increasing outreach through SBA's Veteran Business Outreach Centers – could enable more community-based lenders like credit unions to participate and extend guaranteed loans to veteran-owned firms. We also support efforts to ensure regulatory parity so that credit unions are not unfairly disadvantaged compared to other financial institutions in serving small businesses. For example, leveling the playing field with the Farm Credit System (which enjoys greater lending authorities in rural areas) would encourage **partnership rather than competition** in meeting rural credit needs. Ultimately, all policy levers should be aligned toward one goal: **eliminating the obstacles that prevent those who wore our nation's uniform from achieving their entrepreneurial dreams**. Our veteran small business owners have already proven their leadership and dedication; now we must ensure they have the tools – from high-speed internet to affordable loans – to succeed in the next chapter of service to their communities.

Call to Action
We respectfully urge the Committee to take the following actions:

1. **Support and pass the Veterans Member Business Loan Act (H.R. 4867/S. 539).** This legislation is a critical step toward removing an unnecessary barrier that limits access to capital for veteran-owned small businesses. By advancing VMBLA, Congress will send a powerful message that America's veterans deserve *more than gratitude – they deserve a fair chance to build and grow businesses here at home*. We ask that the House Small Business Committee formally endorse this bill and work with the Financial Services Committee to move it forward.
2. **Champion rural access to capital through credit unions.** In your oversight and legislative work, we urge you to promote policies that enable credit unions to expand services in rural and underserved areas. This includes supporting initiatives to modernize field of membership rules and to increase credit union participation in SBA and USDA lending programs. By cutting red tape and fostering collaboration (for example, expanding USDA loan guarantee partnerships with credit unions), Congress can help channel more investment into rural small businesses.
3. **Continue investing in rural broadband and technical assistance.** We heartily support the Committee's focus on rural broadband as seen in this hearing. We encourage continued bipartisan efforts to fund broadband deployment and digital inclusion programs for rural entrepreneurs. Pairing improved infrastructure with small business technical assistance (such as training on e-commerce, digital marketing, and cybersecurity) will ensure that rural businesses can fully leverage new connectivity to grow and compete. As the Committee has recognized, infrastructure and capital go hand-in-hand in driving rural economic revitalization.

Thank you for your leadership and for the opportunity to provide our perspective for the record. Expanding broadband access and lifting antiquated lending caps are complementary strategies that will **empower rural communities and those who served our nation** to prosper in the modern economy. DCUC and our member credit unions stand ready to work with you to achieve these goals. We deeply appreciate your consideration of our views. Please do not hesitate to reach out if we can provide any further information or assistance to the Committee.

If you have any questions, please do not hesitate to email me at jstverak@dcuc.org or contact me via the phone at 202.557.8528.

Sincerely,

Jason Stverak
Chief Advocacy Officer
DCUC

CC: Members of the Committee

From the Office of the President & CEO

Fiber Broadband Association
3050 K Street NW, Suite 400
Washington, DC 20007, USA

September 3, 2025

The Honorable Roger Williams
Chairman, Small Business Committee
U.S. House of Representatives
Washington, DC 20515

The Honorable Nydia M. Velázquez
Ranking Member, Small Business Committee
U.S. House of Representatives
Washington, DC 20515

Re: Letter for the Record, September 3, 2025, Full Committee Hearing: "Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses"

Dear Chairman Williams and Ranking Member Velázquez,

The Fiber Broadband Association (FBA) appreciates the commitment by this Committee to ensure that reliable, high-speed internet is delivered to all Americans, regardless of where they live, by facilitating efforts to support fiber deployment.

FBA is committed to accelerating the deployment of fiber broadband networks as a foundational strategy for achieving digital opportunity, revitalizing rural economies, and empowering small businesses. This initiative is supported by a blend of private capital and targeted public broadband grants, with grant funding playing a pivotal role in bridging the infrastructure gap.

In today's knowledge-driven economy, rural communities continue to fall behind metropolitan areas in broadband access, hindering their ability to fully participate in the digital marketplace. A study by the Center on Rural Innovation (CORI) underscores that broadband is undoubtedly critical infrastructure with high broadband adoption of over 80% in rural counties spurring business growth by 213%, per capita income by 18%, and GDP growth by 44%, in contrast to communities with low to no usage.[1] This translates into a real-life impact of an average increase of nearly $500 of additional income per person each year.[2] Realizing these benefits, however, requires sustained public investment in high-quality fiber broadband, particularly through targeted use of federal grant programs to close the digital divide and unlock rural economic potential.

In Charlottesville, Virginia, a rural town about 100 miles southwest of Washington, D.C. and 70 miles northwest of Richmond, Virginia in Albermarle County, the investment of taxpayer dollars has proven to

[1] Center on Rural Innovation, "Beyond Connectivity: The Role of Broadband in Rural Economic Growth and Resilience," September, 2024.

[2] *Id.*

be successful, with nearly the entire county expected to be connected by the end of 2025.[3] What began as a dedication to fiber and a launch of 35 miles of fiber networks by local provider, Blue Ridge InternetWorks, has expanded to nearly 726 miles through strategic use of state and federal grants and partnerships with providers like Lumos and Brightspeed.[4] As a result, private sector job growth increased by approximately 35% from 2015 to 2019, housing value in Charlottesville increased by $4 million per year, and the city is now top-ranked in Digital Microbusiness Density, a key indicator of small business health.[5]

Early adoption of high-speed broadband has also proven to be effective in reducing unemployment rates, housing value, and small business vitality in other rural communities like Hamilton County, Tennessee, and rural neighborhoods in Iowa, Minnesota, Texas, Louisiana, Colorado, Kansas, New Mexico, and Missouri.[6]

Moreover, it is critical that efforts to minimize permitting and deployment barriers continue. Challenges including inconsistent regulations across states, navigating land access and right of way permissions, high upfront costs, and geographic obstacles remain. To combat these issues, FBA provides solutions like Fiber Finder that help providers and policymakers map existing fiber networks, visualize deployment options, and identify target areas for expansion. FBA also assists states in calculating the cost-per-location for new fiber projects with its Financial Model in addition to conducting studies, providing free resources, and training.

Accordingly, FBA encourages this Committee to recognize fiber broadband as critical infrastructure and prioritize federal investment in its expansion to revitalize rural communities and their small businesses.

We look forward to working with the Committee and stand ready to support this shared goal in ensuring Americans in rural communities have access to fiber broadband.

Sincerely,

Gary Bolton

[3] Fiber Broadband Association, "Broadband Community Profile: Fiber Anchors Sustained Economic Development Charlottsville, Virginia," January, 2025.

[4] *Id.*

[5] *Id.*

[6] *Id.*

From the Office of the President & CEO

Gary Bolton
President and CEO
Fiber Broadband Association
(919) 349-1025
gbolton@fiberbroadband.org

Congress of the United States

Washington, DC 20515

August 27, 2025

The Honorable Howard Lutnick
Secretary
Department of Commerce
1401 Constitution Ave NW
Washington, DC 20230

Dear Secretary Lutnick:

We write to urge you to reverse harmful changes to the Broadband Equity, Access, and Deployment (BEAD) program created under the 2021 Bipartisan Infrastructure Law. In June 2025, the Department of Commerce announced changes to this vital program that will threaten broadband access in New Hampshire, especially in rural and underserved communities that most need it.

As you know, the BEAD program provides funding to states to improve access to high-speed internet across the country. BEAD projects are in every state and will ensure that Americans have access to the high-quality internet service they need for the 21st century economy. The Infrastructure Investment and Jobs Act, which created the BEAD program, explicitly requires state agencies disbursing BEAD funds to prioritize broadband projects based on "the speeds of the proposed broadband service" and "the expediency with which a project can be completed."

Unfortunately, new guidelines released by the National Telecommunications and Information Administration (NTIA) on June 6, 2025 effectively remove the ability of state agencies to award BEAD funds to broadband providers who will best combine high-quality internet service with cost-efficient construction of broadband infrastructure. The administration has now removed discretion from state and local communities, instead requiring that BEAD funds be allocated solely to the lowest-cost projects—even if those projects deliver extremely low-quality internet service to rural areas.

This change is especially harmful to rural Granite Staters, who may now be limited to slow, weather-dependent internet. We would be pleased to welcome you to New Hampshire's North Country, where you could visit some of the communities that stand to benefit the most from BEAD funding. These towns get heavy snow and rain, and famously, the Mount Washington Valley experiences some of the highest winds in the world. By restricting states from choosing the most effective broadband options for their local communities, the Department of Commerce is undermining state and local efforts to bolster economic development across New Hampshire and the nation.

Additionally, these abrupt changes are set to potentially derail the disbursement of funds to states that have been expecting them. For example, New Hampshire already has a five-year plan approved by NTIA and is ready to receive $191 million in BEAD funds. In light of the

uncertainty the new guidance has caused, our state must now determine how to proceed should the Department reverse its prior commitments.

Congress created the BEAD program to close the digital divide and connect communities lacking access to high-quality, reliable broadband service. For this reason, we urge you to reverse the administration's recent changes to the program immediately.

Thank you for your attention to this urgent matter.

Sincerely,

Jeanne Shaheen
United States Senator

Margaret Wood Hassan
United States Senator

Maggie Goodlander
Member of Congress

Chris Pappas
Member of Congress

Cc:
The Honorable Kelly Ayotte, Governor of New Hampshire
Taylor Caswell, Commissioner, New Hampshire Department of Business and Economic Affairs

CELEBRATING 20 YEARS SMALL BUSINESS MAJORITY

WRITTEN STATEMENT FOR THE RECORD BEFORE THE U.S. HOUSE COMMITTEE ON SMALL BUSINESS

"WIRED FOR GROWTH: HOW EXPANDING BROADBAND CAN REVITALIZE RURAL SMALL BUSINESSES"

September 3, 2025

John Arensmeyer

Founder & CEO, Small Business Majority

Dear Chair Williams, Ranking Member Velázquez and members of the House Committee on Small Business:

As a leading representative and advocate on behalf of America's 36 million small businesses, Small Business Majority writes to provide written testimony on the importance of expanding access to reliable, affordable high-speed broadband for rural small businesses and entrepreneurs.

Small Business Majority is a national small business organization that empowers America's entrepreneurs to build a thriving and equitable economy. From our 12 offices across the country, we engage our network of more than 85,000 small businesses and 1,500 business and community organizations to deliver resources to entrepreneurs and advocate for public policy solutions that promote inclusive small business growth. Our work is bolstered by extensive research and deep connections with the small business community that enables us to educate stakeholders about keys issues impacting America's entrepreneurs, with a special focus on the smallest and most under-resourced businesses.

Access to reliable broadband is essential to the growth and innovation of rural small businesses

Small businesses play an outsized role in the success and sustainability of rural communities across the country – providing a critical means of generating local wealth, employment opportunities, and an overall sense of community which helps rural communities attract and retain residents and economic opportunity. According to recent data from the U.S. Small Business Administration (SBA), small businesses account for nearly 85% of the establishments in rural counties and over 54% of employment in rural counties, compared to 83% of establishments and 46% of employment in metropolitan counties.[1] The entrepreneurial spirit has long been rooted in rural communities, where starting a business often provides a vital pathway to income, independence and financial security in places where employment opportunities can be scarce.

As our economy grows increasingly reliant on digital marketplaces and emerging technologies, reliable broadband is essential for small businesses—not only to succeed but to remain competitive with larger corporations. For rural communities in particular, reliable broadband allows small businesses and entrepreneurs to reach broader customer bases while providing greater flexibility to grow their workforce through remote work opportunities. Given their geographic location, rural small businesses are less likely to have immediate access to business support organizations, including SBA resource partners, and brick-and-mortar bank branches that provide critical in-person services to entrepreneurs. Reliable broadband can bridge these resource gaps – enabling rural entrepreneurs to access online lenders and vital educational resources at the click of a button. In a recent study by the Center on Rural Innovation, rural

[1] "Small Business Facts: Small Businesses in Rural Areas." U.S Small Business Administration Office of Advocacy. August 22, 2023. https://advocacy.sba.gov/2023/08/22/small-businesses-in-rural-areas/

counties that are considered to have high broadband utilization have business growth rates that are 213% higher compared to rural counites without high broadband utilization. Self-employment growth rates are also 10% higher in high utilization counties – highlighting the critical role broadband access plays in entrepreneurship and small business growth.[2]

Lack of reliable broadband in rural communities is hindering opportunities for entrepreneurial growth

While small businesses, and the larger national economy, depend on broadband for day-to-day operations, entrepreneurs located in rural communities continue to face disproportionate barriers in accessing reliable and affordable high-speed internet. According to the Federal Communication Commission's (FCC) 2024 broadband deployment report, 28% of Americans living in rural areas and more than 23% of people on Tribal lands are not connected to fixed broadband.[3] Due to the unique challenges of deploying reliable fixed broadband networks to rural communities, rural entrepreneurs are often faced with higher costs, spotty service and slower speeds which ultimately inhibits their ability to start and grow their business and puts them at a disadvantage as they compete with bigger companies.

Small Business Majority national polling found that 85% of small businesses located in rural areas have access to broadband compared to 91% of businesses in suburban areas and 93% in urban areas.[4] Nearly half of survey respondents with broadband access also indicated that they had slower download speeds, and 15% of business owners said that they experienced service disruptions at least once a month.[5] For small business owners without broadband, in rural, suburban, and urban communities alike, 29% say it's because it's too expensive and they can't afford it, and another 16% say there isn't a reliable broadband provider in their community.[6] In a previous Small Business Majority study on the unique challenges and opportunities facing rural small businesses, rural entrepreneurs also expressed concerns about connectivity, with 11% identifying the lack of reliable broadband as one of the top three challenges facing their business. Rural stakeholders and business owners who participated in the study's focus group also noted that a lack of access to broadband hurts efforts from technical assistance providers to establish programs for local entrepreneurs.

As small businesses and entrepreneurs across rural communities nationwide continue to experience barriers in accessing reliable and affordable high-speed broadband, we urge Congress and the administration to work closely with states to ensure the successful implementation of the Infrastructure and Investment in Jobs Act's (IIJA) Broadband Equity, Access, and Deployment (BEAD) Program. The BEAD program, which provided more than $42 billion to states to expand high-speed broadband access and adoption to unserved and underserved communities, presents a historic opportunity to extend reliable broadband to millions of rural small businesses and entrepreneurs – contributing directly to the sustainability and prosperity of rural America.

Rural entrepreneurs in Small Business Majority's network have shared the following statements on both the importance of reliable connectivity for their business and how a lack of access to reliable broadband impacts their day-to-day operations:

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[2] "Beyond Connectivity: The Role of Broadband in Rural Economic Growth and Resilience." Center on Rural Innovation. September 30, 2024. https://ruralinnovation.us/wp-content/uploads/2024/09/CORI-Beyond-Connectivity-Broadband-Rural-Economic-Growth-Report.pdf

[3] "Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion." Federal Communications Commission. March 18, 2024. https://docs.fcc.gov/public/attachments/FCC-24-27A1.pdf

[4] "Digital Transformation: Small businesses face obstacles, opportunities in using digital technologies in the wake of the pandemic." Small Business Majority. August 22, 2024. https://smallbusinessmajority.org/sites/default/files/research-reports/digital-transformation-small-businesses-face-obstacles-opportunities-in-wake-of-the-pandemic.pdf

[5] Ibid.

[6] "Digital transformation: Survey finds lack of digital fluency in key areas, need for additional support." Small Business Majority. February 21, 2023. https://smallbusinessmajority.org/sites/default/files/research-reports/Survey-small-businesses-lack-digital-fluency-need-additional-support-feb-2023.pdf

- **Small business owner in Alamogordo, New Mexico:** *"Internet access is extremely unique in regard to business transactions. It opens up the world to economic-based jobs and that is a job funded by customers outside of the state. If I'm selling products outside of the state, that's money flowing into New Mexico. That brings money into my rural community, and they say for every economic-based job, it creates 1.5 to 2 base jobs. You have to have that influx."*

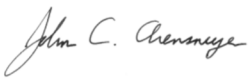
- **Margo Clayson, owner of the Mighty Microgreen in Inkom, Idaho: "***Reliable access to the internet is, of course, an imperative for a rural business. Without the internet, I don't have a business as we don't have phone reception out here. We were on Big Dog internet for years, but it recently became unstable and unreliable, at times being down for hours. Being in the middle of 'nowhere', we have few options. There are no cable options – no company wants to put in cable when there are so few customers per mile. To get Big Dog, we ran a cable 300 feet up our hill to a radio relay pointed at a dish 4+ miles away on another mountain. The speeds were decent, but it became unreliable as this area grew and with more people taking up bandwidth."*

- **Shayai Lucero, owner of Earth and Sky Floral Designs and Gallery in Laguna, New Mexico:** *"I run my floral shop out of a home studio, but being in a rural area and living on Native American tribal land means I don't have access to the infrastructure that many businesses often take for granted, including high-speed internet. Although a fiber optic data line runs outside the fencing next to my house, I can't gain access to it."*

- **Jessi Burg, founder of Outgrow Your Garage in Delta, Colorado:** *"I now have 6 gigabit fiber thanks in part to federal funding from the Biden administration's 2021 infrastructure act. Prior to this, I spent about six months relying on an AT&T hotspot, which was expensive, capped and unreliable. Access to reliable broadband was a deciding factor in my decision to move to Delta, Colo., and federal funding initiatives have made rural places like Delta a possibility for business owners like me that need broadband to run our businesses."*

We appreciate the Committee for holding this important hearing and for its work in addressing the unique challenges facing rural small businesses and entrepreneurs. For any questions or additional information, please contact our Government Affairs Director, Alexis D'Amato, at adamato@smallbusinessmajority.org.

Sincerely,



John Arensmeyer
Founder & CEO
Small Business Majority

Starlink Capacity Analysis v0.2

Sascha Meinrath[1] Karl Grindal[2] Glenn Fishbine[3] Nancy DeGidio[3]

July 18, 2025

Abstract

Assuming no topographical considerations or pre-existing user base, in areas where there are more than 6.66 households per square mile within a Starlink beam's coverage area, Starlink may fail to deliver the minimum service level (100/20Mbps) to qualify as a broadband service, thus failing to meet the NTIA eligibility requirements to receive federal support for broadband through programs such as the Broadband Equity, Access, and Deployment (BEAD) program.

Keywords: *Starlink; Broadband Requirements; Network Oversubscription, Network Capacity, Beam Coverage*

1 Introduction

This analysis provides an initial estimate and evaluation of the capacities and saturation limits of the Starlink satellite infrastructure. As an exploratory analysis, the goal is to provide general heuristics that relate to Starlink implementation to meet Federal requirements for "broadband" (i.e., sub-100ms latency connectivity of at least 100Mbps download speed and 20Mbps upload speed).

It should be noted preliminary that full technical specifications for Starlink are not publicly available and the assumptions utilized to produce this analysis are explicitly conditional as stated. Overall, these analyses underscore the need for comprehensive capacity analyses prior to allocation of Federal funding for satellite connectivity and that a failure to take into account fundamental real-world limits to Starlink capacity will result in the allocation of Federal funding to support connectivity that may not meet the eligibility requirements to receive Federal funding, thus raising serious concerns over waste, fraud, and abuse.

1.1 Disclaimer

The analyses presented below are based, in part, on public information available through June 2025, and which may not accurately represent the full technical capabilities of Starlink satellites. Because Starlink does not publish thorough and detailed technical specifications for their satellites, the assumptions made in these analyses may be incorrect; however, citations to source materials, whenever available (e.g., Starlink FCC filings), are provided.

[1]Director, X-Lab, Palmer Chair in Telecommunications, Penn State University
[2]Department of Security Studies, University of New Hampshire
[3]Breaking Point Solutions, LLC

The overarching goal of these analyses are to make transparent the need for independent verification of capacity limits to the Starlink infrastructure, and the crucial need for detailed engineering, propagation, and capacity analysis to be conducted for any area where Starlink and other satellite broadband solutions are proposed (for example, as recipients of BEAD program funding).

Given the documented capacity limitations to satellite broadband service provisioning (and that these limits are driven both by new and pre-existing customer bases), formal capacity assessments require data concerning Starlink's existing user base; and, new user base limits must be independently verified prior to funding allocations to avoid harmful network congestion that could degrade services to Starlink users within an over-subscribed geographic area.

2 Analytical Appraoch

2.1 Satellite Characteristics

This analysis assumes the use of Starlink V2 satellites, which are, as of June 2025, the most sophisticated generation of widely-deployed Starlink satellites. However, three major iterations exist among the estimated 7,850 currently operational satellites: V1, V1.5, and V2. The current total number of V2 satellites is unknown; but since this analysis assumes that all operational satellites are V2 vintage, the estimates are a likely maximum capacity ceiling for the existing Starlink system.

Each V2 satellite offers approximately 96 Gbps of download bandwidth and 6.7 Gbps upload capacity (a roughly 14:1 ratio of download to upload capacity). Each satellite has beamforming capabilities to support up to 16 beams, with each beam capable of providing approximately 6 Gbps download throughput and 0.4 Gbps upload throughput.

2.2 Beam Coverage Area

Each beam has an estimated coverage area of approximately 63 square miles assuming a 1.5-degree beamwidth, as reported in Starlink's FCC filings. While multiple orbital shells exist for Starlink Low Earth Orbit (LEO) and Very Low Earth Orbit (VLEO) constellations, to simplify the analysis, we assume Ka/Ku-band, phased-array transceivers operating at 550 km altitude.

The Estimated Beam Coverage Area also utilizes the following estimates and formula to develop a circular/oval footprint at nadir, and we provide the formulas used to facilitate analyses predicated upon different parameters):

$$\text{Estimated Beam Coverage Area} = \pi * (\tan(1/2 * \theta * \pi/180) * h)^2$$

Where:

- h = satellite altitude [we assume 550 km].

- $\theta =$ beamwidth [we assume a 1.5 degree angular beam width].
- We assume a satellite operating at a right angle to a flat plane to estimate coverage area.

$$\text{Estimated Beam Coverage Area} = \pi * (\tan(1/2 * 1.5 * \pi/180) * 550km)^2$$

Assumption 1: Beamwidth Assumption

- We assume a beamwidth of 1.5 degrees, which is typical for Ka/Ku-band phased-array systems used in LEO constellations like Starlink. This is a reasonable midpoint between 1° (narrower, high-gain beams) and 2° (wider, lower-gain beams).
- This yields a half-angle for the beam of 0.75 degrees (0.013091 radians).

Assumption 2: Altitude

- We assume an altitude of 550 km. NOTE: While 550 km was the initial planned orbit height for Starlink's constellations in their 2019 FCC filings, shells as low as 340 km above the earth have subsequently been deployed.

Assumption 3: Footprint Area

- Assumptions 1 & 2 yields a circular footprint [i..e., assuming a 90 degree beam on a flat plane] of 162.8554 square kilometers (roughly 63 square miles)

Additional Known & Excluded Adjustments for Real-World Factors

- Off-Nadir Beams: Beams directed away from nadir create elliptical footprints, which can increase the coverage area but reduce signal strength and throughput due to slant range. For a beam steered at, say, 30° from nadir, the footprint becomes elliptical, potentially covering 200–300 km², depending on the angle.
- Overlap and Cell Size: Starlink's network design uses overlapping beams to ensure continuous coverage. Each beam's effective service area (or "cell") is likely smaller, around 100–150 km², to manage capacity and avoid interference. Engineering discussions and analyses suggest Starlink operationalizes cells using a hexagonal grid, with effective diameters of roughly 15 km. However, the actual beam footprint is likely smaller, with cells dynamically assigned to optimize capacity.
- Topology: Topography creates perturbations to the coverage ovals, while hills and mountains (and trees, buildings, etc.) cause "shadows" whereby coverage within a satellite's beam coverage oval can become disrupted.
- Self-Interference, Weather Attenuation, Harmful Interference, etc.: These real-world constraints all detrimentally affect wireless systems though, for simplicity's sake, are excluded from these analyses. All would further lower expected throughput/network capacity.

2.3 Oversubscription Limits

For a given beam within that footprint, we have two distinct cases to consider:

- USE CASE 1: A dedicated bandwidth use case where all Broadband-Serviceable Locations (BSLs) are simultaneously provided an allocated maximum amount; and,
- USE CASE 2: A more industry-standard, contention ratio use case where the oversubscription rate is 20:1 (i.e., meaning only 1 in 20 BSLs is actually using Satellite capacity at any given point in time).

For the analyses below, 6 Gbps is the beam download capacity, 0.419 Gbps is the beam upload capacity (and 0.1Gbps is the 100 Mbps Federal requirement for broadband download speed, and 0.02 Gbps is federal requirement to meet baseline broadband upload speed). Given federal minimum speed requirements to qualify as a "broadband" service, these two use cases would yield two distinct saturation points for the download and upload capacities of the Starlink network:

Per Beam BSL Limit (Download Speed):

- USE CASE 1: If all BSLs are simultaneously downloading, then the maximum # of BSLs per beam is 6 Gbps/0.1 Gbps, or 60 BSLs.
- USE CASE 2: If only 1 in 20 BSLs are downloading at any given time, then each beam could serve 60 X 20, or 1,200 BSLs.

Per Beam BSL Limit (Upload Speed):

- USE CASE 1: If all BSLs are uploading simultaneously, then the maximum # of BSLs per beam is 0.419 Gbps / 0.02Gbps, or roughly 21 BSLs.
- USE CASE 2: If only 1 in 20 BSLs are uploading at any given time, then each beam could serve 20.95 X 20, or 419 BSLs.

A contention ratio of 20:1 is within industry standards, and because the limiting factor for meeting Federal minimum speed requirement to qualify as a "broadband" connection is the upload capacity limit, we use the upload-capacity BSL-limit for subsequent analysis.

3 Findings

Given the upload capacity limit of Use Case 2 (with a maximum of 419 BSLs per beam) and the above assumptions leading to a beam coverage area of 62.9 square miles area, one can derive the following maximum average Broadband Service Location (BSL) density:

# of BSLs / Beam Coverage Area = Maximum BSLs per Square Mile

Where:

- # of BSLs = Maximum Number of BSLs that would saturate the throughput of each satellite beam [we assume 419 based upon the uplink BSL limit above].
- Beam Coverage Area = 62.9 square miles, as per the above analysis.

$$419/62.9 = 6.66 \text{ BSLs per square mile}$$

Meaning, that a BSL density of more than 6.66 BSLs per square mile within any given starlink beam coverage area would saturate the network to the point that Starlink could be unable to provide the minimal upload speed threshold to meet the definition of a "broadband" service. Exceeding this 6.66 BSLs per square mile threshold would yield a likely outcome where Starlink services would consistently fail to meet the NTIA's minimal performance requirements to receive Federal grant funding from initiatives such as the BEAD Program.

3.1 A Note on Beam Overlap

Starlink's design permits multiple beams to partially or totally overlap each other. And both a tighter beam coverage angle (creating a smaller beam coverage area) and/or polarized overlapping beams could increase the maximum permissible density. However, even with two overlapping 1 degree beams and no self-interference, one would anticipate oversubscription to occur with roughly 30 BSLs per square mile, which would still make large swaths of rural America untenable for Starlink broadband service. Under real world conditions, the risk of network congestion, hidden nodes, and self-interference would likely put a strain on the Starlink infrastructure before reaching this density level. However, there is inadequate public data documenting Starlink's congestion and self-interference thresholds to include such impact in this analysis.

3.2 Real World Observations

Currently available data indicate that, as of June 2025, only 17% of U.S. speedtest users with Starlink met the 100 Mbps down, 20 Mbps up speed requirement, according to the following:

- "Starlink's U.S. Performance is on the Rise, Making it a Viable Broadband Option in Some States" (June 10, 2024) `https://www.ookla.com/articles/starlink-us-performance-2025`
- "Starlink Shows Gains in Speed Test Report" Telecompetitor Article (June 11, 2025) `https://www.telecompetitor.com/starlink-shows-gains-in-speed-test-report/`

These longitudinal data suggest persistent challenges with the satellite coverage spanning years. Our analysis on BSL congestion levels also excludes a range of other limiting

factors worthy of further documentation (and that would further lower the density threshold), including weather attenuation, hand-off latency spikes (and micro-outages), potential congestion of ground terminal uplink bands, and others.

Furthermore, preliminary findings by Meinrath and Karl document additional reliability concerns, including diurnal Starlink network congestion (of both upload and download throughput) across the country and across a longitudinal data collection window spanning from 2022 to 2025. These longitudinal data suggest persistent challenges with the satellite coverage spanning years, with data documenting consistent periodic latency spikes above 100ms and severe speed degradation during peak broadband usage hours – mirroring Ookla's 100+ms latency measurements of the Starlink network.

4 National Implications

Under the NTIA's latest Notice of Funding Opportunity (NOFO), State Broadband Offices are required to be technology independent. Further, they are required to take the lowest qualified bid and only consider secondary factors if the next highest bid is within 15% of the lowest bid.

Many State Offices are concerned that Starlink proposals may be the lowest bid and alternative proposals may not be within the 15% window for consideration.

What this analysis presents is that across many geographic areas Starlink may not be a qualified bidder as it may be unable to attain the required 100/20 Mbps service level (and, in deploying Starlink services, may actually degrade pre-existing users' services to the point that they no longer receive minimal broadband speeds). Even in lower population density regions, whenever the number of un- and underserved BSLs subscribing to the service is greater than 6 households per square mile within a beam's coverage area, further due diligence is essential prior to funding allocations.

5 Contact Information

Sascha Meinrath
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Palmer Chair in Telecommunications
Penn State University
sascha@thexlab.org

WESTERN GOVERNORS ASSOCIATION

SPENCER COX
GOVERNOR OF UTAH
CHAIR

JOSH GREEN, M.D.
GOVERNOR OF HAWAI'I
VICE CHAIR

JACK WALDORF
EXECUTIVE DIRECTOR

September 4, 2025

The Honorable Roger Williams
Chairman
Committee on Small Business
House of Representatives
2361 Rayburn House Office Building
Washington, DC 20515

The Honorable Nydia M. Velázquez
Ranking Member
Committee on Small Business
House of Representatives
2361 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Williams and Ranking Member Velázquez:

In light of the Committee's September 3, 2025, hearing, Wired for Growth: How Expanding Broadband Can Revitalize Rural Small Businesses, attached please find Western Governors' Association (WGA) Policy Resolutions 2023-07, Broadband Connectivity, and 2023-06, Rural Development.

In the rural development resolution, Western Governors recommend that the federal government invest in broadband infrastructure and expand access to internet services for new job opportunities and the ability to work remotely. Additionally, Western Governors encourage Congress to address application barriers for businesses, local governments, cooperatives, tribes, and other entities involved with broadband deployment in rural communities. The broadband resolution highlights recommendations to maximize federal broadband infrastructure investments and improve broadband data collection and mapping processes in coordination with states.

I request that you include this document in the permanent record of the hearing, as it articulates Western Governors' collective and bipartisan policy on this important issue.

Thank you for your consideration of this request. Please contact me if you have any questions or require further information.

Sincerely,

Jack Waldorf
Executive Director

Attachments

Policy Resolution 2023-07
Broadband Connectivity

A. BACKGROUND

High-speed internet, commonly referred to as "broadband," is the critical infrastructure of the 21st century and a modern-day necessity for businesses, individuals, schools, and government. Many rural and tribal western communities lack the business case for private broadband investment because of the high cost of infrastructure and the low number of customers in potential service areas. Factors such as the vast distances between these communities, challenging terrain, sparse middle mile and long-haul fiber-optic cable, and the need to permit and site infrastructure across federal, state, territorial, tribal, and private lands make planning, siting, and maintaining broadband infrastructure especially difficult. This has left many rural businesses and citizens at a competitive disadvantage compared to urban and suburban areas with robust broadband access.

Historically, federal broadband investment has struggled to address these inequities, due in large part to inaccurate and overstated data. Whether or not an area is considered "served" depends not only on if households have access to the internet, but also the speeds and bandwidth that they have access to. This determination has significant effects on a community's eligibility for federal broadband infrastructure support and can prevent businesses, local governments, and other entities from applying for and securing federal funds to assist underserved or unserved communities. High-quality data is required to ensure that current public broadband deployment efforts are cost-effective and prioritize these areas, while digital inclusion efforts are needed to provide access to affordable broadband and devices and to build the digital skills to utilize broadband.

B. GOVERNORS' POLICY STATEMENT

1. Western Governors encourage Congress and federal agencies to recognize that the current definition of broadband – 25/3 Mbps – does not correspond with the requisite download and upload speeds necessary to support many business, education, and health care applications that promote economic and community prosperity. We support efforts to adopt a higher, scalable, and consistent standard across federal broadband programs – at least 100/20 Mbps and scalable to 100 Mbps symmetrical – that more accurately reflects modern innovations and bandwidth demands.

2. Western Governors request that the Federal Communications Commission (FCC), National Telecommunications and Information Administration (NTIA), U.S. Department of Agriculture (USDA), and other federal entities prioritize scalable broadband infrastructure investments that meet communities' increased bandwidth demands into the future. Funds for equipment maintenance and upgrades are essential to ensure that federal broadband investments continue to provide high-quality service.

3. While Western Governors are heartened by significant federal investments in broadband, principally the $42.5 billion Broadband Equity, Access, and Deployment (BEAD) Program established through the Infrastructure Investment and Jobs Act (IIJA), it is imperative that

federal program design and implementation does not repeat the mistakes of the past. Federal funding represents a historic opportunity to close the digital divide and should help states and territories reach areas in most need of assistance. To do so, Western Governors urge the FCC, NTIA, USDA, and other federal agencies involved in broadband deployment to work closely with Governors and state and territorial agencies and respond to and address their needs and concerns prior to releasing large tranches of funding. In particular, federal agencies that make independent broadband infrastructure awards should consult with states and territories prior to finalizing awards to ensure they align with state and territorial BEAD plans.

4. Due to their unique characteristics, western states and territories have a disproportionate amount of high-cost areas to serve. Federal funding and allocation formulas should reflect the exorbitant costs and challenges that the West faces when deploying broadband so that states and territories receive adequate funding to bring sufficient internet access to as many hard-to-reach households as possible.

5. The FCC should recognize state and territorial institutional knowledge about broadband needs and ensure that they have a significant role in data collection, verification, and mapping. The FCC should also make map challenge processes transparent and give states and territories ample time and resources to participate in these processes.

6. Western Governors note that continued federal investment will be needed to shore up connectivity gaps and backfill BEAD funding. We encourage Congress to consider supplementary funding for broadband deployment, including innovative and flexible ways to redirect existing resources, such as the Rural Digital Opportunity Fund.

7. Western Governors recognize that rural communities have unique challenges related to completing broadband deployment objectives for federal grant requirements. We recommend that the federal government allow states and territories to assume control of these funds for broadband purposes if grantees do not meet their objectives. Recovering funding at the state and territorial level would help communities seek a new solution in response to a state or territorial Notice of Funding Opportunity or redirect the capital to other pressing broadband needs.

8. Streamlining permitting processes is critical for western states, territories, and partners to meet federal funding deadlines. Western Governors encourage federal agencies to pursue strategies to prioritize reviews and standardize requirements for broadband infrastructure permits on federal lands and improve planning and permitting coordination between public land management agencies. We support efforts to reduce permitting timelines for broadband infrastructure co-located with existing structures and other linear infrastructure, such as roads, transmission lines, and pipelines. The Department of the Interior (DOI) and the U.S. Forest Service's online mapping platforms identifying telecommunications infrastructure sites on their lands will be helpful tools to accomplish this goal. Further, Governors urge DOI, USDA, and other federal land management agencies to allocate sufficient funding to support additional permitting staff. Without sufficient staff, western states and territories will see backlogs and long permitting timelines that will jeopardize projects that cross federal lands.

9. Regulations affecting broadband infrastructure permitting and siting vary by state and can create additional obstacles to private and public investment. Where possible, Western Governors should work together to minimize this barrier.

10. Western Governors encourage Congress and federal agencies to address application barriers for businesses, local governments, cooperatives, tribes, and other entities involved with broadband deployment in rural communities. The Governors have highlighted substantive policy recommendations related to these barriers in our rural development policy resolution. Western Governors are also committed to sharing best practices on how to collaborate with organizations, localities, and tribes in our states and territories, and establish a strategy among these partners on applying for federal broadband programs to enhance success and reduce competition for funds.

11. Western Governors appreciate USDA and FCC efforts to promote on-farm connectivity and the growth of the precision agriculture sector, which reduces water and pesticide usage and increases productivity. We request that Congress provide additional funding to support the adoption of precision agriculture and extend connectivity from the home to the field and encourage both agencies to engage with Governors' offices, state and territorial broadband representatives, and state departments of agriculture as they pursue policy and program initiatives to support this technology.

12. Western Governors recommend that adequate wireless spectrum be allocated to support rural residential connectivity and advanced and emerging agricultural technologies.

13. Western Governors emphasize the growing importance of internet exchange points (IXPs) in promoting cost-effective, reliable broadband service in rural areas. We encourage Congress and federal agencies to promote investment in rural IXPs via applicable broadband deployment programs, legislative proposals addressing infrastructure, and other methods.

14. Western Governors encourage federal agencies to continue expanding the eligibility of electric and telephone cooperatives to pursue USDA and FCC broadband deployment program support, as cooperatives' existing infrastructure and access to rights-of-way can help promote low-cost connectivity solutions for rural communities.

15. Western Governors urge federal agencies and Congress to expand policy, programmatic, and fiscal opportunities to improve broadband connectivity on tribal lands. This includes designing federal programs in a way that promotes partnerships between tribes, states, and various broadband providers. We recommend that federal broadband programs allocate a designated portion of their available funding to supporting projects on tribal lands.

16. Western Governors encourage Congress and federal agencies to leverage community anchor institutions in rural communities to spur connectivity to surrounding areas. We support efforts to advance "to and through" policies that provide flexibility to incentivize additional private or public broadband infrastructure investment beyond connected community anchor institutions.

17. Western Governors appreciate USDA Rural Development's efforts to promote broadband connectivity across the rural West and responsiveness to our recommendations. We encourage the federal government to streamline USDA's many broadband offerings and

authorize the Rural eConnectivity Program, otherwise known as the ReConnect Program. In so doing, USDA should require ReConnect to consult with state and territorial broadband offices prior to making awards to ensure coordination with state and territorial broadband infrastructure deployment plans.

18. Western Governors support efforts to promote flexibility within the FCC E-Rate Program in order to deliver home connectivity solutions for unserved and underserved students and respond to connectivity issues associated with the COVID-19 pandemic. We encourage the FCC to support bus wi-fi and other creative efforts that seek to address the homework gap.

19. Western Governors recognize the importance of ensuring that individuals and communities have the skills, technology, and capacity to reap the benefits of our digital economy. The Digital Equity Act within the IIJA provides states with capacity grants to address needs for digital skills in newly connected communities. Western Governors encourage NTIA to speed up the review and approval process for these funds so states and territories can begin to deploy funds. Further, Governors encourage Congress and federal agencies to work with states and territories to ascertain unmet and ongoing needs for digital equity following the expenditure of capacity grant funds in 2026.

20. Notwithstanding the many federal, state, and territorial initiatives to date to bring better connectivity to communities, internet affordability remains the largest barrier to closing the digital divide. Eighteen million households have access to the internet but cannot afford to connect to it. The Affordable Connectivity Program is a foundation of states' digital equity and inclusion strategies. Over 17 million households now rely on the program to pay for their monthly home internet bill each month. Western Governors call on Congress to continue to fund this vital program, without which future infrastructure projects may be underutilized.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

This resolution will expire in June 2026. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.

Policy Resolution 2023-06
Rural Development

A. BACKGROUND

Vibrant and prosperous rural communities are essential components of western states and the nation. Rural communities in the West grow and supply food, steward natural resources, contribute disproportionately to the armed services, and are critical to state economies. These communities are often richly diverse and face varying threats and opportunities, although they do share some common challenges – including low population density, distance from urban centers, and capacity constraints – that are more pronounced than in other regions and are frequently not reflected in the design of federal programs.

The COVID-19 pandemic and the rise of virtual systems such as telework, distance learning, and telehealth have transformed migration trends and the ways in which people live, work, and learn. However, these common challenges continue to hinder the delivery of services, connectivity, and economic development across the rural West. The planning and management processes required to implement solutions and to access and deploy federal funding to address such challenges are increasingly complex, compounding disinvestment over time and increasing geographic inequities.

B. GOVERNORS' POLICY STATEMENT

1. Western Governors believe that strengthening social infrastructure in rural communities is the best strategy to ensure rural quality of life and prosperity. Congress and federal agencies should increase the proportion of rural economic development and infrastructure funding that goes toward capacity-building, particularly for U.S. Department of Agriculture (USDA) Rural Development programs, and Congress should allow agencies to negotiate the percentage of financial versus technical assistance within appropriations. Western Governors call for ample and consistent federal funding and consistent regulatory requirements across agencies for institutions, training, and technical assistance so that state and local governments, nonprofit organizations, and associations can assist communities in applying for and managing funding. Robust social infrastructure is fundamental to economic and community development and maximizes the impact of state and federal resources.

2. Criteria used to define rural and underserved communities vary at the federal level. Western Governors encourage federal agencies to be consistent in these definitions, and to consider the unique characteristics of the West and use the best data available to make program eligibility determinations.

3. Western Governors believe that many federal programs for rural development and distressed communities include unintended barriers for rural individuals and entities that need assistance most. Western Governors urge federal agencies to work with states to: thoroughly evaluate program requirements; identify barriers for rural applicants; and revise onerous requirements in a manner that recognizes the limited resources and capacity of rural applicants. In particular, Western Governors are concerned by:

a. Scoring criteria that relate to numerical size and impact, such as the number of jobs created or the number of people served, which disadvantage small and isolated communities;

b. Requirements that applicants partner with other institutions like community colleges or foundations, which may not operate in the rural community seeking assistance;

c. Financial match or cash-on-hand requirements that rural organizations cannot meet;

d. Overly complicated or technical applications that deter rural customers from applying;

e. The use of median household income to determine program eligibility, particularly in coal, hard-rock mining, oil and gas, and power plant communities; and

f. Low administrative allowances that hinder communities from hiring qualified staff to cover the amount of territory and comply with federal regulatory requirements.

4. Western Governors also urge federal agencies to use state data for eligibility determinations when requested by states. States often have more up-to-date and granular data for rural communities than federal sources.

5. Western Governors recognize and support efforts at the federal and state level to coordinate the deployment of resources, leverage funding, and create one-stop application processes for rural customers. Western Governors are interested in exploring strategies to expand those models to include more funders and further enhance coordination between agencies and between states and the federal government.

6. Western Governors believe that changes in our economy, labor force, and technological innovations require fundamental changes and new approaches to economic development strategies. Western Governors promote and are dedicated to sharing rural development policies that focus on quality of life, the support of small businesses and entrepreneurs, and economic diversification, spurred by federal incentives for innovation. This will develop rural communities that are attractive places to live and work while protecting their rural character, natural resource-based industries, and natural areas.

7. Western Governors are eager to work with public universities, community colleges, and the business community to expand opportunities for young people to stay in their rural communities. There is a high demand for skilled workers in rural communities and states and territories should work together on regional solutions that provide the appropriate training and skills for the jobs that are available in rural communities where possible. Western Governors are also committed to increasing employment among veterans, people with disabilities, and historically disadvantaged communities in the rural West.

8. To address lower labor force participation in rural areas, Western Governors recommend that the federal government: invest in education and training programs that are tailored to the needs of rural communities; provide resources and support for entrepreneurs, such as

access to capital and business incubators to encourage more people to start their own businesses and create jobs in rural areas; invest in broadband infrastructure and expand access to internet services for new job opportunities and the ability to work remotely; and offer tax incentives, grants, or other financial incentives to support businesses locating in rural areas.

9. Western Governors encourage Congress to help create the conditions necessary to attract manufacturing enterprises and jobs to rural areas.

10. Rural communities in the West are envisioning transformative and systems-wide solutions to meet the unique needs of their communities. Western Governors urge Congress and federal agencies to be responsive to these successful, community-based methods and allow maximum flexibility in the use of federal economic development resources and the design of new and existing programs. Increased flexibility will also facilitate investments in quality of life and amenities in rural communities. Governors believe that metrics based solely on the absolute number of jobs created do not reflect the important economic benefits of investments in community assets that make rural communities attractive places to live, nor do they account for the relative impact of job creation in less populated rural communities or areas with high unemployment or poverty rates.

11. Western Governors support the adoption of community cooperative business models to preserve rural businesses and fill needs for child care, homecare, main street businesses, housing, sustainable food supply, and other community needs. Western Governors recognize the need for substantial technical assistance and education in developing new cooperative businesses and support federal funding of such efforts.

12. The Economic Development Administration (EDA) provides adequate resources for community and economic development planning, yet funding for project implementation is limited to specific geographic areas or types of infrastructure. Western Governors request that Congress and EDA broaden the eligible use of EDA funds to support the execution of community and economic development plans, create actionable improvements, and scale ideas across communities. Western Governors are especially interested in making agricultural innovation and housing eligible for EDA programs.

13. Western Governors have developed robust policies addressing a host of sector-specific issues and the challenges of providing services and maintaining infrastructure essential to communities across the vast expanse of the rural West. These policies focus on broadband connectivity, health care, affordable housing, transportation, workforce development, agriculture, water quality, and the relationship between communities and land management. Western Governors are committed to working with Congress and federal agencies to advance these priorities and improve the efficacy of federal, state and territorial programs to support critical infrastructure in the rural West.

14. Western Governors are concerned by food security challenges in rural communities. Rural grocery store closures jeopardize livability and community health. However, we are encouraged by the efforts occurring within our states. Western Governors are interested in exploring creative and comprehensive strategies to ensure rural food security and sustainability by strengthening and diversifying local agricultural economies and developing regional approaches to rural food supply chains.

15. The Cooperative Extension System, which serves every county in western states, is an important asset for rural development. Western Governors believe that Cooperative Extension can play a more meaningful role in economic development efforts in distressed communities and support continued investment in the system, especially for upskilling, training, and funding for new positions as it responds to the changing needs of rural communities. Western Governors are committed to maximizing the efficacy of Cooperative Extension in their states.

16. Western Governors assert that access to high-quality, culturally and linguistically relevant early education and child care is critical to rural communities and encourage Congress to allocate funding for these services. Access to child care is essential to ensure positive short and long-term health, development, and educational outcomes for young children and to allow families in rural communities to pursue the economic and educational opportunities that help them achieve a more secure future.

17. An absence of congressional action has resulted in a lack of consistency in the design and implementation of the Community Development Block Grant (CDBG) Program. Western Governors encourage Congress to reauthorize CDBG and standardize the program's environmental and administrative processes.

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. The Governors direct WGA staff to work with Congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

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