Statement by

Shirley Bloomfield
Chief Executive Officer
NTCA–The Rural Broadband Association

Before the

United States Senate
Committee on Commerce, Science, & Transportation

"Connecting America:
Improving Access to Infrastructure for Communities Across the Country"

March 1, 2017

INTRODUCTION

Chairman Thune, Ranking Member Nelson, members of the Committee, good morning and thank you for the invitation to participate in today's hearing focused on infrastructure.

I am Shirley Bloomfield, Chief Executive Officer of NTCA–The Rural Broadband Association ("NTCA"). NTCA represents approximately 850 rural small businesses deploying broadband infrastructure in 46 states. All NTCA members are fixed voice and broadband providers, and many of our members also provide mobile, video, satellite and other communications-related services to their communities. The small telcos like those in NTCA's membership serve less than five percent of the population of the United States, but cover approximately 37 percent of its landmass. These companies operate in rural areas left behind by other service providers because the markets were too sparsely populated, too high cost, or just too difficult in terms of terrain.

These small broadband providers have been leaders in deploying advanced communications infrastructure that responds to consumer and business demands and connects rural America with the rest of the world. For rural America, such infrastructure enables economic development and job creation not only in agriculture, but for any other industry or enterprise that requires robust connections to operate in the modern world. But, for all their progress to date, the job of deploying and operating this critical infrastructure is not done, as operators still face the challenges of sustaining and upgrading existing networks to keep pace with consumer demand, delivering affordable services, and extending these networks into parts of rural America still lacking access.

Before turning to what policies could help promote the deployment and sustainability of broadband infrastructure in rural America, it is important to understand what benefits accrue to *both rural and urban America* when *every American* has reasonably comparable access to high-quality communications services at affordable rates.

RURAL BROADBAND INVESTMENT IN ACTION: ECONOMIC DEVELOPMENT AND JOB CREATION

Small, hometown broadband providers have led and are continuing to lead the way in deploying high-speed, sustainable broadband that responds to the needs of consumers and businesses in rural America. The broadband infrastructure they deploy enables applications that rural and urban communities can leverage for education, commerce, health care and government services. Broadband-capable networks facilitate greater interconnection of community resources and enable greater participation in the national and global economy.

To not have access to high-speed Internet today should be unimaginable, yet millions of rural Americans have limited or even no access to robust broadband. And while it is critical to deliver broadband to the unserved, it is just as critical that those already receiving broadband remain served. There are many places in rural America where networks have been built by committed companies like those in NTCA's membership, but the sustainability of that infrastructure and the

affordability of services remain in question. In many parts of rural America, the challenges of distance and density are so great that they cannot sustain even one broadband network. Section 254 of the Communications Act therefore rightly recognizes that our national policy is not merely about deploying infrastructure, but also ensuring that such infrastructure, once deployed, means something for the consumer – that is, "reasonably comparable" services at "reasonably comparable" rates for urban and rural consumers alike. If a network is built but then becomes unsustainable, or if the services offered over it are unaffordable or unreliable or cannot keep pace with increasing consumer demand, then these outcomes deny rural Americans the benefits of broadband and represent a terrible waste of the resources that help to make broadband infrastructure available in the first instance.

In April of 2016, the Hudson Institute, in conjunction with the Foundation for Rural Service (FRS), released a report examining the economic benefits of rural broadband infrastructure.[1] This report determined that the investments and ongoing operations of small rural broadband providers contribute $24.1 billion annually to the nation's gross domestic product, with 66 percent ($15.9 billion) of that amount accruing to the benefit of urban areas.[2] The report also found that rural broadband investment is an important driver of job growth, estimating that 69,595 jobs – 54 percent of which are with vendors and suppliers in urban areas – can be attributed directly to economic activity of small rural broadband providers.[3] These findings confirm that investment in rural broadband infrastructure yields returns that reach far beyond the confines of rural America.

Finally, the study found that rural broadband supported over $100 billion in e-commerce in 2015. Nearly $10 billion of that total involved retail sales, and Hudson estimates that if the broadband deployment in rural areas was equivalent to that in urban areas, sales would have been at least $1 billion higher.[4] Such data underscore that not only is the widespread availability of robust affordable broadband important for our national economy, but the direct act of investing in and operating broadband infrastructure is itself a substantial economic driver.

But, there are also jobs beyond the telecom technicians, engineers, materials suppliers, and manufacturers that are supported by rural broadband infrastructure. In Sioux Center, Iowa, a major window manufacturer built a 260,000 square-foot plant to employ 200 people. The company considered more than 50 locations throughout the Midwest, but selected Sioux Center in part because the rural broadband provider enabled this plant to connect with its other locations throughout the U.S. using a sophisticated "dual entrance" system that could route traffic to alternate paths, ensuring that the main headquarters 250 miles away and other facilities would remain connected. In Cloverdale, Indiana, a rural broadband provider met with developers and helped bring

[1] The Hudson Institute, "The Economic Impact of Rural Broadband," April 2016, ("Hudson Paper"). https://s3.amazonaws.com/media.hudson.org/files/publications/20160419KuttnerTheEconomicImpactofRuralBroadband.pdf.
[2] *Id.*, pp. 13-14.
[3] *Id.*, p. 13.
[4] *Id.*, pp. 19-20.

an industrial park to its service area. Powered by this provider's broadband, the facility brought more than 800 jobs to the area. These stories are repeated throughout NTCA member service areas, giving rise to the concept of the Smart Rural Community.

RURAL BROADBAND COLLABORATION IN ACTION: SMART RURAL COMMUNITY

Moving beyond the economic data and looking at actual applications in the field, it is clear that broadband enables and fosters innovative economic development, commerce, health care, education, and other activities and capabilities that contribute to the success and well-being of communities.

Many of these achievements in leveraging broadband infrastructure for the benefits of communities have been highlighted in NTCA's Smart Rural Community program. This initiative recognizes top-performing broadband providers in rural areas, as well as sponsoring on-going educational events and providing matching fund "micro-grants" to stimulate collaboration among broadband providers and other community leaders. The premise of this program is that a smart rural community relies both on high-capacity broadband infrastructure and on teams of highly motivated and collaborative leaders – the people behind the technology – to make the best possible, most productive uses of that infrastructure. This in turn helps with the sustainability of the networks once built, as well as driving greater demand for broadband as others see the potential applications and uses in practice.

NTCA's Smart Rural Community companies have deployed connected health carts in public schools whose students are challenged by persistent poverty; worked with local electric utilities to enable two-way meter reading, power outage data, and voltage alerts; worked with U.S. border control officials to support critical security functions along our Nation's southern border; and enabled local firefighters to view reported fires and locate nearby hydrants before firefighting teams arrive. Our Smart Rural Community grant program has brought local broadband operators together with hospice facilities and public school districts to create broadband-enabled solutions aimed at supporting the needs of the elderly and our aspiring youth, for whom access to increased educational and entrepreneurial opportunities can only yield benefits for the Nation. The Smart Rural Community therefore helps to highlight how the "rubber meets the road" – what the availability and sustainability of broadband infrastructure can mean for consumers, businesses, and communities in rural areas.

In a North Dakota community of 10,000 spread across an area of nearly 4,000 square miles, a rural broadband provider helped a small college become the first "laptop university" in the United States, providing a fiber backbone to support a campus-wide Wi-Fi network that enables portable laptop usage by all students. In Milltown, Wisconsin, an NTCA member serving six villages, 15 townships, and a Native American Reservation community connected six hospitals across two states to enable telemedicine services, including the ability to share critical diagnostic files with a major medical center for life-saving decisions when specialists are not available in the rural areas.

A HOLISTIC APPROACH TO BROADBAND INFRASTRUCTURE

Broadband forms the foundation of these advancements in education, health care, and economic development. The critical role of this communications infrastructure is as necessary to these regions present and future needs as is electricity and other infrastructure that enables the ordinary course of a thriving society. The current administration has expressly recognized the importance of advanced communications networks, having included "telecommunications" within an initial list of infrastructure priorities even prior to taking office. The need to advance broadband infrastructure has also been expressly noted by over 100 members of Congress in a recent letter to the President urging him to include broadband within any broader infrastructure initiative. NTCA therefore applauds the apparent consensus already achieved with respect to making broadband an infrastructure priority, and welcomes the chance to participate in a further discussion on how best to tackle this priority.

Before turning to specific thoughts on paths forward, it may make sense first to outline a few key objectives for consideration with respect to any broadband infrastructure plan:

- **First**, the plan should at least account for, if not specifically leverage, what is already in place and has worked before. Creating new programs from scratch is not easy, and if a new broadband infrastructure initiative conflicts with existing efforts, that could undermine our nation's shared broadband deployment goals.
- **Second**, there should be meaningful expectations of those who leverage any resources made available through such an initiative. Looking to providers with proven track records in delivering real results makes the most sense, but whomever receives any support should be required to show with specificity that they used those resources to deliver better, more affordable broadband that will satisfy consumer demand over the life of the network in question.
- **Third**, any broadband infrastructure plan needs to be carefully designed and sufficiently supported to tackle the challenges presented. This is a question of both program focus and program scope.
    - From a focus perspective, any infrastructure plan should aim toward getting broadband where it is not and also sustaining it where it already is; deployment of duplicative infrastructure in rural areas that are uneconomic – and may not even support on their own a single network – will undermine the sustainability of existing network assets.
    - From a scope perspective, deploying and sustaining rural broadband is neither cheap nor easy; we obviously need to recognize that finite resources are available to address any number of priorities, but any plan that calls for broadband deployment – especially in high-cost rural America – should match resources to the size of the problem to be solved.

- **Fourth**, any resources provided as part of an infrastructure plan should look to get the best return on such long-term investments. For networks with useful lives measured in decades, this should mean the deployment of infrastructure capable of meeting consumer demands not only today and tomorrow, but for ten or twenty years. Putting resources toward infrastructure that needs to be substantially rebuilt in only a few years' time could turn out to be resources wasted – and risk leaving rural America behind.
- **Fifth**, while the economics of deployment are an essential component of any infrastructure plan, a comprehensive approach to promoting deployment is required. Barriers or impediments to broadband deployment must also be addressed as part of any holistic plan to promote and sustain infrastructure investment. Put another way, the best-funded, best-planned networks may never deliver fully on their promise if they are caught in regulatory red tape and needless delay.

Any potential path forward with respect to broadband infrastructure policy should be evaluated against such criteria. As one example of a policy with promise, and as NTCA first outlined in a December 2016 letter to the National Governors Association when that group was evaluating infrastructure priorities in collaboration with the Presidential transition team, strong consideration should be given to leveraging and supplementing the existing high-cost Federal Universal Service Fund ("USF") programs under the oversight of the Federal Communications Commission (the "FCC") as a primary means of implementing a broadband infrastructure initiative. The USF programs have been in place for years, and the FCC has recently reoriented them under a "Connect America Fund" ("CAF") banner to promote broadband in high-cost rural areas. The high-cost USF/CAF programs are essential both in justifying the business case for broadband infrastructure investment in the first instance, and then in keeping rates for services affordable atop the networks once they are built.

Unfortunately, these programs are also woefully underfunded to achieve their goals as designed, relegating tens of thousands of rural Americans to lesser broadband than their urban counterparts (or no broadband at all), and leaving millions of other rural Americans paying tens or even hundreds of dollars more per month than their urban counterparts do for the same broadband services. Such impacts undermine the benefit of building rural broadband infrastructure in the first instance, as well as hindering the value of broadband as a component of a broader economic development strategy. They put at serious risk the very ability of our nation to achieve the universal service mission articulated by Congress in Section 254 for millions of rural consumers and businesses – and they will undermine the viability of a broadband infrastructure initiative if not addressed upfront.

Small businesses like those within NTCA's membership have previously leveraged a mix of private capital, USF support, and entrepreneurial spirit to achieve an unparalleled track record of success in advancing rural broadband. NTCA members have made great strides in rural infrastructure investment, with our most recent broadband survey indicating that: (a) 71 percent of their customers already have access to at least 25 Mbps services; and (b) 49 percent of their customers already have access to "future-proof" fiber-to-the-home networks. At the same time, despite this initial track

record of success by these small companies and the USF programs essential to their efforts, much more remains to be done. For example, those 29 percent of customers without access to 25 Mbps and those 51 percent of customers without access to fiber networks are almost certainly the "toughest to reach." And while many rural consumers and businesses may be fortunate enough already to have access to broadband infrastructure comparable in quality to urban areas, it must not be overlooked that the USF programs are equally important in ensuring affordable rates for services on those networks.

The FCC's high-cost USF programs therefore could represent a logical focal point for future broadband infrastructure initiatives. The FCC is the nation's expert agency in telecom policy, and it is already tackling the broadband challenges described above with respect to availability and affordability. Moreover, recent USF reforms adopted by the FCC have sought to: (1) reorient the programs toward broadband, (2) ensure funding is targeted to where it is needed (*i.e.*, to places where the market does not enable service delivery on its own), and (3) define what the FCC considers an efficient level of support in each area. The reformed program rules now compel significant accountability, to the point that support recipients must meet specified deployment obligations and literally geocode every new location to which they deploy broadband leveraging USF support. The FCC is also working to finalize rules that make USF resources in wide swaths of rural America available for companies of all kinds – cable companies, traditional telcos, wireless Internet Service Providers, and satellite providers – to leverage in making the business case for rural broadband investment and service delivery. Although some implementation efforts remain ongoing and some questions remain outstanding, and while some minor conforming changes would likely be needed to implement any resources available as part of a new broadband infrastructure initiative, it would seem more straightforward to coordinate any new initiative as a supplement to such existing programs than to stand up an entirely new program from scratch and then attempt "on the back end" to coordinate that new program with ongoing efforts.

Indeed, as NTCA has recently described in filings at the FCC and elsewhere, additional broadband infrastructure resources, if flowed through the high-cost USF programs, could achieve immediate and compelling effects given significant and troubling current budget shortfalls in those programs. For example, providing additional resources to allow the FCC's cost models and competitive bidding programs to function as designed could yield measurably improved delivery of broadband to tens of thousands of additional locations at higher speeds, and help deliver service to many more who currently face the prospect of no broadband at all. Industry estimates show that 71,000 more households would be the beneficiaries of better broadband infrastructure if the FCC's cost model were funded as designed, while 47,000 households are currently at risk of receiving no broadband at all due to a lack of sufficient support.

Meanwhile, in other rural areas, additional resources could mitigate the fact that millions of rural consumers are still forced to pay tens or even hundreds of dollars more per month for standalone broadband than their counterparts in urban areas – *despite the fact that hundreds of Members of Congress wrote to the FCC in 2014 and again in 2015 expressly asking for this concern to be*

resolved. Despite recent reforms to ostensibly fix this problem, NTCA estimates that due to USF controls that require more cost recovery from rural consumers, some consumers in Colorado could face rates as high as $300 per month for broadband, while some in South Dakota could be facing charges over $275 per month. From an infrastructure perspective specifically, it is far harder to justify future investments in broadband networks when consumers face prices such as these and cannot reasonably afford the services once delivered. These are concerns common to many rural consumers, and they are particularly acute of course in areas with significant rural poverty levels and tribal areas.

The FCC's various high-cost USF programs – the Connect America Fund 2 initiative and the programs that enable service delivery in rural areas served by smaller businesses – therefore offer a ready-made platform that, with additional resources but with very little additional "heavy lifting" or process, could "hit the ground running" and yield immediate, measurable benefits for rural consumers. Other options could include alternative grant or capital infusion programs, comparable to what several States have used to address "market failure areas" – places where the business case for investment is difficult, if not impossible, to make without additional resources. At the same time, creating such programs would require more administrative effort than leveraging existing programs, and the rules for any such new program must still be informed by the objectives I first articulated above and any "lessons learned" from similar prior efforts at the Federal and State levels. For example, as a matter of program integrity and to ensure the most efficient possible use of resources, it would be necessary to ensure such a capital infusion program is accurately targeted to unserved areas rather than enabling installation of duplicative infrastructure; in effect, this means that any new program would still require substantial coordination with the existing USF programs, among other things. And although some have alternatively touted tax incentives as offering promise – and while there are certainly areas in which such incentives might help – such measures are unlikely to make a material impact in most rural areas where distance and density make it difficult, if not impossible, to justify a business case for infrastructure investment to start.

Regardless of what path is chosen, one key factor that requires further consideration is what sorts of broadband networks any infrastructure investment initiative should aim to promote. NTCA believes that if one is paying for and building an asset intended to last for a few decades, that asset should be built to last a few decades. Of course, in a world of finite resources, there is a difficult tension between, on the one hand, trying to reach as many unserved Americans as possible with networks that may cost less upfront and, on the other hand, deploying more sustainable "future-proof" networks to potentially fewer locations. This is not an easy choice. But NTCA submits that deploying a network that may be less expensive upfront – but which consumers will find substandard in just a few years' time, or will require much more to operate and upgrade over time – makes little sense for either the consumers who would use those networks or the American ratepayers or taxpayers who would ultimately help support them.

As a more traditional infrastructure analogy that may resonate: if one projects that car traffic is doubling every few years on a single-lane road, one likely does not rebuild the new highway with only two lanes and then go back to add two more lanes a few years later and yet two more lanes a few years after that. Instead, given the relatively high costs of infrastructure deployment and the disruption involved in repetitious construction, one builds the highway "the right way" the first time. The same should be true of our broadband networks. We should certainly look for a balanced approach to reach as many locations as possible, but not at the societal and economic cost of deploying networks that in only a few years' time will look obsolescent and inadequate for the users consigned to them. It is therefore important that any rules adopted by the FCC to address distribution of any supplemental USF resources that may be made available through a broadband infrastructure initiative deliver the best, most balanced payback for both the American taxpayer and the users of the networks – *both* in the near-term *and* over the life of that infrastructure.

Finally, even given the significance of sufficient resources to ensure reasonably comparable services for rural and urban Americans alike, we must not forget the importance of streamlining and/or elimination of regulatory hurdles to and burdens upon deployment as part of any comprehensive broadband infrastructure initiative. In South Dakota, for example, a small rural provider's multimillion-dollar fiber deployment requiring Forest Service approval encountered permitting holdups delaying completion of the project more than a year. In Utah, providers have faced construction delays due to inter-agency permitting disagreements between the Bureau of Land Management and the U.S. Department of Transportation. Other NTCA members have raised concerns about the need for inefficient and repetitive National Environmental Policy Act studies. Delays can also be caused by confusion regarding control of the rights-of-way for State roads. Meanwhile, increased or unreasonable costs for franchise rights and pole attachments can turn already high-cost rural infrastructure projects into unjustifiable or unsustainable investments.

Such roadblocks, delays, and increased costs are particularly problematic for NTCA members, each of which is a small business that operates only in rural areas where construction projects must range across wide swaths of land. There are, of course, many efforts already underway to examine and address such concerns. For example, the Mobile NOW legislation introduced by Chairman Thune and Ranking Member Nelson highlights the significance of streamlined permitting and siting in a national broadband deployment strategy. Similarly, FCC Chairman Ajit Pai's "Digital Empowerment Agenda" contains many thoughtful suggestions on how "to make it easier for [Internet Service Providers] to build, maintain, and upgrade their networks," ranging from greater scrutiny of local franchising regulations to ensuring reasonableness in the costs for pole attachments. Chairman Pai's recent announcement of the formation of a Broadband Deployment Advisory Committee also represents a meaningful step in evaluating and taking real action on these issues. Continued progress in consideration and implementation of such ideas must be seen as an essential component of a holistic broadband infrastructure initiative.

CONCLUSION

Small, rural broadband providers are eager to continue deploying infrastructure and delivering services that rural America needs to participate in the modern world. But the ability to justify and then recover the initial and ongoing costs of sustaining infrastructure investment in high-cost rural areas is critical to this mission's success.

NTCA is excited to participate in this conversation regarding broadband infrastructure initiatives, and we look forward to working with policymakers and other stakeholders on a comprehensive infrastructure strategy that provides the tools and capabilities needed to achieve our nation's shared broadband goals.

Thank you for the opportunity to testify, and for the Committee's commitment to creating an environment conducive to broadband infrastructure investment in rural America.