Chairman Yaw and members of the Board of Directors for the Center for Rural Pennsylvania, I want to thank you for inviting Blue Ridge Communications and PenTeleData here today to speak about the challenges of and opportunities for providing broadband in rural Pennsylvania communities.

Blue Ridge Communications began around 1950 when founder Claude E. Reinhard built an antenna on top of Blue Mountain and ran a cable from the mountaintop to a community building in Palmerton. At that moment, Palmerton residents were able to view Philadelphia television broadcasting channels for the very first time. Since then, Blue Ridge has expanded to serve subscribers in fifteen counties in Pennsylvania.

In 1994, Blue Ridge's parent company, Pencor Services, founded PenTeleData with the intent of providing affordable broadband high-speed internet access. PenTeleData is a strategic partnership of local communications companies that serves twenty-eight counties in eastern Pennsylvania and western New Jersey. Today, PenTeleData is one of the largest privately owned networks in the nation and has deployed nearly 10,000 miles of fiber optic cabling. PenTeleData's network connects a number of notable customers, including Lehigh Valley Health Network, Crayola, and Weis Markets.

Blue Ridge and PenTeleData plan to continue to invest each year to meet the ever growing demands of our subscribers for high-speed internet access and other IP services. This year, Blue Ridge completed the transition to all-digital television. This transition freed up bandwidth and allowed Blue Ridge to deploy 1 Gig internet speeds throughout most of its footprint. Blue Ridge has been using private funds to build out to unserved areas, and has been investing in existing networks to bring customers the fast internet speeds they demand. Likewise, PenTeleData goes to great lengths to make connectivity a reality for customers, and will even serve customers that are not located within its immediate partner footprint. This is accomplished through strategic partnerships with other providers like Comcast and Verizon.

Blue Ridge and PenTeleData have made some great technological investments within the past year, but we are looking to do more. We recognize that a digital divide exists in Pennsylvania, and we are eager to do our part to help close it. Fortunately, the FCC and Congress have taken steps within the past year to help ease the burden on providers. Although we are thankful for the help we have received, there is still more that must be done. We are ready to meet broadband objectives and serve rural Pennsylvania, but we need you, Congress, and the FCC to take steps to encourage private investment and remove barriers to deployment to help us reach those goals.

Encourage Private Investment

Private investors across the country have been investing vast amounts of money in infrastructure. In fact, the American Cable Association estimates that broadband providers are investing $75 billion annually. The best way to ensure providers continue to make these

investments is to do no harm, as nothing will undermine Blue Ridge and PenTeleData's efforts to deploy broadband more than signaling to us that our returns on investment are uncertain or even in jeopardy.

Do No Harm. The best way to ensure that private investors continue to invest is to ensure that any governmental efforts do no harm. In other words, do not permit governmental support to be used in areas where private investment has already been used to deploy infrastructure. Duplicative efforts by overbuilders are a waste of taxpayer funds. Public funds should not be used for middle mile builds only. We already have that. What rural communities need is last mile. Similarly, focus on unserved areas, not underserved. We believe the FCC's definition of unserved—an area where no provider offers 10/1 Mbps broadband service—should be supported. Fast speeds everywhere are ideal, but wireline deployments become much more expensive as the speed of service increases because more copper plant needs to be replaced with fiber.

Additionally, ensure competitive and technologically neutral legislation and regulation. Do not favor any providers or any industry sector. If a provider is operating on an "act first, ask for forgiveness later" basis, enforce the applicable rules. We have encountered a number of providers who will disregard proper protocol. They will skip over the pole attachment process and move our attachments without permission, which subjects us to complaints from the pole owners. Additionally, they will bypass right-of-way procedures and will apologize after the work has been done. Rules exist for a reason. Either enforce them or repeal them, as they can be a huge barrier for the time it takes to deploy broadband and abuse by providers unwilling to follow them creates issues for those of us who are complying.

Regulatory Certainty. Blue Ridge and PenTeleData are businesses. When we begin work on a project, we estimate how long it will take it recoup the investment. In general, we look for a five to seven year payback, which is an eternity in today's technological environment. Because we expect it to take a couple years before there is a return on investment, regulatory certainty is essential.

In 2015, the FCC introduced the Open Internet Order, which has since become known colloquially as "net neutrality." Blue Ridge, like many other providers, agrees with and complies with the core tenets of net neutrality—no blocking, no throttling, and no paid prioritization. However, with introduction of this Order, came a lot of regulatory uncertainty. To enforce the core tenets, the FCC had to reclassify the internet as a telecommunications service under Title II of the Communications Act. By doing so, the FCC thrust the internet into a regulatory scheme written for phone service, which amounted to fitting a square peg through a round hole. This new classification resulted in the FCC forbearing from many provisions that were wildly inapplicable, and those that the FCC did apply left providers guessing how voice-specific terms were meant to match up with broadband technology. In other words, regulatory

compliance became a guessing game that could become costly, should the provider guess incorrectly.

Additionally, the possibility of rate regulation became a looming concern. Like all other businesses, broadband providers require certainty when planning business models. Without the guarantee of a return, especially on an expensive buildout, providers are reluctant to move forward with extensions into areas that are costly to serve. Fortunately, the FCC has decided to remove the internet from Title II classification and restore its previous status as an information service, thereby returning some semblance of regulatory certainty. However, there is still the possibility that a new administration's FCC could change its mind and reclassify the internet yet again. Until Congress passes a law protecting the core tenets of net neutrality, broadband providers will proceed with caution.

Incentivize. Passage of the federal Tax Cuts and Jobs Act of 2017 was a huge incentive for providers. In addition to reducing the corporate tax rate to 21%, the Act permits providers to "expense" network investments immediately. This allows us to increase our capital spending significantly in the coming years. Although passage of this statute introduced great incentives, the Pennsylvania Department of Revenue subsequently quashed them by issuing a Bulletin that reclaims the 100% bonus depreciation allowed by the federal statute. This action by the Commonwealth has the effect of raising the cost of expanding deployment. Repeal of this Bulletin, whether by statute or by the Department of Revenue, would restore a huge incentive for buildout. Companies like Blue Ridge and PenTeleData are constantly looking at ways to decrease the cost of buildout to get more subscribers connected. The 100% depreciation deduction would have been a large win in this area. Removing this incentive was clearly an unintended consequence of the Department of Revenue's action, but it is not too late to restore this incentive and lessen the cost of broadband buildout. Please support Representative Ryan's bill, H.B. 2017, to restore this crucial incentive.

Remove Barriers to Deployment

Ask any provider what stands in the way of fast deployment and you will hear two things: cost and pole attachments. Deployment is extremely costly, especially in areas where there are not enough homes per mile to generate enough income to justify a costly build. By enacting and preserving the incentives discussed above, providers will continue to deploy broadband. The speed of deployment, however, depends on how many hoops providers must continue to jump through. There are many barriers to construction, each with its own challenges and associated fees. These barriers include accessing poles, ducts/conduits, and rights-of-way. Pole attachments are governed by a mix of federal, state, and local requirements, which further complicates deployment. Accordingly, Blue Ridge and PenTeleData want you to recognize the following issues that delay or prevent broadband deployment in rural areas and urge you to support efforts, whether local, state-wide, or federal, to rectify these problems.

Access to Poles. Pole owners often make it difficult to upgrade systems and add new customers by restricting access to their poles. They will require pole surveys to make sure the poles meet the National Electric Safety Code before another party attaches to them. This occurs even after we already have attachments on the pole. If we want to overlash[1] or add service drops[2], pole owners will often charge us or force us to apply to go back on the pole. However, these changes do not create additional attachments. Even after making these changes, there will still only be one attachment.

A number of pole owners will cite safety concerns as a reason for restricting access to their poles. Similarly, they will leverage safety to get poles replaced at our expense. In reality, the pole owners should have replaced the pole years ago, but declined to do so. Pole access has turned into a game whereby providers must first chase down pole owners, who will then find any way to make money off the providers seeking to attach to the poles. These unnecessary costs do nothing but enrich the pole owners and slow down broadband deployment.

For example, we had a request for a build to a newly elected magistrate's home. The total build to connect this home was estimated to cost around $140,000. There were seventeen houses on this road. To build to the entire street, make ready was required on thirteen poles plus eleven poles needed to be replaced. The survey fees alone for the whole development totaled over $13,000. That was in 2014. Since then, prices have risen for pole surveys.

Lengthy Application Process. The application process for getting on a pole can be quite lengthy. Sometimes, the time frame is so long that it can result in the loss of a customer. This process begins with trying to chase down the pole owners. This alone can take months. After we finally make contact, it can cost us in both time and money, as we must often wait for the pole owners to do surveys and their own make ready, which results in further delays. This process can be fast tracked by enforcing reasonable application timeframes. Additionally, time could be saved by enabling closer coordination among pole owners, existing attachers, and new attachers earlier in the process, including by providing for joint surveys where new and existing attachers would have the right to accompany a pole owner's survey of the proposed attachments. The process for sharing and accessing conduit could also use improvement.

Costly Make Ready. Make ready can be extremely costly due to unnecessary costs imposed by pole owners. Many pole owners will insist on unnecessary pole engineering design and loading analyses, which are unrelated to new attachments. Additionally, other attachers will manipulate make ready to make money off the providers. For example, telephone companies have been known to place their attachments four inches too high on a pole. They then

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[1] Overlash is the process of increasing the fiber count by connecting to existing fiber that is already on the pole. By increasing the fiber count, we are increasing the bandwidth on the system.

[2] Service drops are the cables that lead to the residence for service.

subsequently charge $30,000 to do make ready and move their attachments to the proper place. Specifically, in 2014, make ready work to connect a library was estimated to be about $49,000. Allowing providers to do their own make ready would save on unnecessary costs imposed by pole owners and other attachers, and would allow providers to deploy broadband quickly and efficiently.

Unregulated Electric Cooperatives. At this juncture, electric cooperatives are not subject to the federal Pole Attachment law. This statute ensures attachment rates are reasonable and that providers have a level playing field. For example, an electric cooperative that operates in Bradford, Potter, and Tioga counties charges a $15.70 attachment fee per pole per year, whereas another electric company that is subject to the Pole Attachment law and operates in the same counties charges $7.79 per pole per year. The unregulated, higher costs in electric cooperative territories are a huge deterrent in broadband buildout, as buildouts that would require use of their poles are far more costly.

Rights-of-Way Obstacles. Due to difficulties with rights-of-way, we often need to go out of our way to serve the customer. For example, a company in Winfield, Pa., required only about a 1600 foot line extension. However, this required a private right-of-way. After nearly two years, PenTeleData partner Service Electric Cablevision was finally able to serve this company by coming in from another direction and building about two miles of fiber/cable instead. This example illustrates how rights-of-way can take a simple project and turn it into something much more complex, time consuming, or costly.

The governmental bodies in charge of granting rights-of-way must not be discriminatory. Instances of favoritism are prevalent in some areas we serve, as some providers have an "in" with members of the local government. No provider or technology should be favored when it comes to granting these rights. When charging fees for rights-of-way, ensure they are related to the actual costs governments incur for providing access to that right-of-way. Additionally, because any use of rights-of-way is linked to network facilities and not the provision of services over those facilities, governments should be prohibited from charging rights-of-way fees on a per-service basis.

The above principles are best illustrated by example. The process begins with a service request from a customer. Then we will look at the location, and PenTeleData and Blue Ridge engineering will do a fiber inquiry. If there is no fiber in the location, the next step is to apply for pole attachments. Depending on the area and the pole owner, pole rental fees can range from $5 to $15.70 per pole per year.

About fifteen years ago, Blue Ridge did a build to and through Northern Tioga School District. This build allowed us to pick up medical and manufacturing customers on the way. This build was done in a Verizon territory where Verizon had declined to update switches, which resulted in little bandwidth. A company called Electri-Cord Manufacturing in Westfield asked

for our service because Verizon could not provide it with the bandwidth amounts it needed. To serve this business, we needed to get pole attachments, but there was not enough space on two necessary poles. It took three months to get an answer from the pole owners, but Electri-Cord did not have an infinite amount of time to wait. Once we did receive a response, we were given a final make ready quote of $20,000 just to attach to those two poles. By the time we had the quote, Electri-Cord was at the end of its internet contract and had to make a decision about renewal. Because of the delay and associated cost, we lost a customer.

We went back to the drawing board. Eventually, we entered into an overlash agreement with a local cable provider, Westfield TV. Thanks to this agreement, we were able to eliminate the make ready costs associated and provide service to Electri-Cord. A year later, Electri-Cord became a customer. This story may have a happy ending, but there were many roadblocks to get there. Had something happened differently—a reasonable time frame to respond to pole attachment applications or allowing Blue Ridge to do its own make ready—Electri-Cord would have become a customer sooner and would have had access to the bandwidth amounts it needed. All of this build was funded by private investment. This story is not uncommon, and it is not particularly unique to rural broadband, either. Pole access is a major problem for providers no matter the population density. However, it is amplified in rural areas, due to the inability to defray costs with number of subscribers.

Deploying broadband to rural Pennsylvania is no easy matter. It takes an immense amount of cooperation among providers, and federal, state, and local governments. Blue Ridge and PenTeleData are ready to connect all we can, but we need your assistance and cooperation. Together, we can close the digital divide, as long as private investment is given the opportunity to thrive and barriers to deployment are broken down.