Center for
RURAL
Pennsylvania
A LEGISLATIVE AGENCY OF THE PENNSYLVANIA GENERAL ASSEMBLY

Public Hearing Summary:
Expanding Broadband Access in Rural Pennsylvania

February 2021

Key Takeaways

- Funding is essential to help deploy broadband in rural areas. Funding through multiple channels helps more providers overcome high start-up capital requirements.
- Support from state and federal governments through both financial and regulatory means is essential to overcome start-up barriers in low-population-density areas.
- Community buy-in, collaboration and sustained support are key to broadband expansion in rural areas.
- Affordable, high-speed broadband internet access is needed to attract, retain, and expand businesses in rural areas, and to maintain the quality of life for rural residents.
- There is no one-size-fits-all approach to the type of infrastructure required to deploy broadband. However, fiber is a superior service as it allows for equal download and upload speeds.
- Rural areas, which tend to have higher populations of senior citizens, can benefit substantially from community-led technology training and support. Seniors often have the technology but may not know how to access all of its benefits.
- The COVID-19 pandemic put the spotlight on how important quality connectivity is to every community in Pennsylvania.

On February 18, 2021, the Center for Rural Pennsylvania held the public hearing, Expanding Broadband Access in Rural Pennsylvania. The Center's Board of Directors conducted the hearing to learn more about the efforts to expand broadband access in rural Pennsylvania, with a focus on the role of electric cooperatives, economic development entities, and educational organizations.

Background

Affordable, high-speed broadband connectivity is essential for economic development, health care, education, and quality of life in all Pennsylvania communities. According to 2019 Census data, 15 percent of rural Pennsylvania households do not have any internet access. Many others lack quality, high-speed service. Center-sponsored research has shown that urban and rural Pennsylvania residents are receiving inequitable broadband service - not only in terms of broadband speed, but also in the prices they pay for service.

Tri-County Rural Electric Cooperative Case Study

Created in the 1937, Tri-County Rural Electric Cooperative (REC) was established to provide electrification to a 5,000-square-mile region in north central Pennsylvania. Over the past several years, Tri-County REC heard from its members on the lack of internet service in the region and their need for high-speed broadband service. Testifiers at the hearing noted that a lack of high-speed broadband has set north central Pennsylvania behind in economic opportunities, educational technology, and healthcare access through telemedicine. Essentially, many people felt as though they were "second class citizens."

Recognizing the similarities between the need for rural electrification at the beginning of the 20th Century and the need for rural broadband today, Tri-County REC created its subsidiary, Tri-Co Connections, to deploy high-speed broadband in its region by building a fiber optic network.

Getting started

Before undertaking fiber deployment, Tri-County REC conducted market and technical feasibility studies and multiple financial iterations to determine the implications of rural fiber deployment in its territory. The analyses showed the need for significant financial assistance in the initial fiber infrastructure deployment to offset costs and ensure a positive return on investment (ROI) for Tri-County and its members. Tri-County developed a funding plan and worked closely with multiple state legislators, state agency officials, the Governor's office, federal legislators, economic development stakeholders, and consulting groups to pursue funding. To date, it has been successful in securing $62 million of the $80 million it needs to lay down a total of 2,800 miles of fiber.

Tri-Co Connections also faced several regulatory barriers, the most significant of which was attaining Eligible Telecommunication Carrier status by the Pennsylvania Public Utility Commission (PUC). PUC worked with Tri-Co Connections and eventually granted it the designations it needed. By early 2020, Tri-Co Connections began installing fiber optic cable.

To date, Tri-Co Connections has installed 500 miles of fiber to 700 commercial and residential members, and is providing connectivity speeds that are at least four-times the current FCC threshold.

Project Benefits

Economic: Develop Tioga, an economic development agency in the region, said that high-speed broadband is essential for business development and growth. Develop Tioga heard from: maple producers and farmers who needed technology in the fields and woods, employers who needed to have quick, reliable access both at their place of business and for employees working from home, contractors and entrepre-

neurs who wanted to live and conduct business from their homes, and students who needed access for homework, and many more.

With the rollout of the project in Potter County in 2020, others in the region were excited that enhanced broadband services and availability were coming their way. The installation of fiber has benefited many in the Tri-County service area during the pandemic, as companies were able to continue operating. This in turn provided employment for their workers at time when many businesses were laying-off employees. Tri-Co Connections is making agreements with cellular providers to connect fiber optics to cell towers. This agreement will enable the providers to expand cellular service. Tri-Co Connections also hired seven full-time employees and employed about 100 contract personnel to help with construction.

Education: The Oswayo Valley School District superintendent noted that, before Tri-Co Connections began its project, two-thirds of the district's students did not have high-speed internet service to live-stream instruction. With other partners, the school district was able to pinpoint households in need of broadband service. The superintendent predicts that, in the future, there will no longer be "snow days" because students will be able to continue learning remotely. However, the superintendent also said that unless significant advances are made in broadband connectivity, outages of connectivity could limit the district's ability for remote learning.

Increasing New Skills and Decreasing Social Isolation Among Senior Citizens: In 2019, Tri-Co Connections and the Potter County Education Council worked together to understand the digital divide in their communities. They found that many residents, especially senior citizens, had computers, but very few had internet connections. Many of those who did have a connection had very poor service or were not using their service to its full potential. The team recognized that once Tri-Co Connections made access available, these residents would need training, so they developed the Seniors 2 Seniors course, which brought senior citizens together with high school seniors for technology instruction. The Potter County Education Council began offering these training classes at senior centers throughout the region. While these classes were interrupted by the pandemic, they were successful in bringing together senior citizens and senior high school students to not only learn and teach new skills but also develop worthwhile social connections and combat social isolation.

Future Challenges

Ambitious Goals: To connect the region, Tri-Co Connections indicates that it will need to lay 2,800 miles of fiber optic cable across 5,000 square miles. To accomplish this in its targeted 6-year plan, it will need to lay more than 460 miles of cable a year, or the near equivalence of a one-way trip from Philadelphia to Erie.

Funding: While Tri-Co Connections was able to secure $62 million in financial support for the project, the total cost is $80 million, so it will need to fill an $18 million gap.

Providing Telecommunications Services: Tri-County REC has 84 years of experience in providing electric service to its members. Telecommunications services, however, is a new endeavor, and it may bring unexpected administrative, regulatory, and technical challenges.

Scan QR code for the agenda, testimony and recording of the public hearing.