

## Broadband USA Applications Database

**Applicant Name:** XIT Rural Telephone Cooperative, Inc.

**Project Title:** XIT Rural Telephone Cooperative – Unserved PFSAs

**Project Type:** Last Mile Remote

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### Executive Summary

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**Project Description:** The project proposed by XIT Rural Telephone Cooperative is to provide fiber to the premise to rural customers that are located in very rural areas that are distances from a central office or electronics cabinet which prevent broadband ADSL service over existing copper lines. Fiber to the premise (FTTP) service offerings will also give the highest speed capabilities for future applications, including video services. XIT is also submitting another last mile application to provide broadband services to areas in and around the towns of Dalhart and Stratford, Texas. These applications are independent of one another with regards to implementation and operation. Additionally, XIT has equity allocated for both projects. **Opportunities:** This project will fill the need for present and future bandwidth requirements by placing fiber to rural subscribers. This project will replace old and deteriorating copper telephone plant that is nearing or has reached the end of its useful life. Placing fiber to these rural subscribers is a long term future proof investment. With an expected life of 30 years, this fiber will provide a solid framework for providing the bandwidth needs of the future. XIT's current ADSL offering is over very long copper loops and utilizes early generation ATM DSLAMs. By placing fiber to rural households and businesses and by utilizing standards based GPON technology, XIT will be able to provide 100 Mbps to each subscriber meeting bandwidth needs for the next 5-6 years without any upgrades to the proposed FTTP equipment. This project will extend full fiber capabilities to the most rural establishments and give them bandwidth comparable with any urban establishment. **Service Areas:** This project will serve subscribers located in Dallam, Sherman, and Hartley counties in the state of Texas. This project consists of four distinct Proposed Funded Service Areas (PFSAs). The Coldwater PFSA is composed of 184 census blocks located west and north of Dalhart, Texas. The Kerrick PFSA is composed of 8 census blocks north of Stratford. The Middlewater PFSA is composed of 160 census blocks located east and south of Dalhart. The Texline PFSA is composed of 40 census blocks located southeast of Texline and includes a small portion of the community of Texline. These areas were selected based on areas with extremely long copper loops and on existing and planned business service needs. **Households and Businesses:** This project will pass 230 households and 56 businesses. Businesses passed will include a dairy and a cotton gin facility. **Community Institutions:** The four PFSAs included under this application are all located in rural areas focused on residential and businesses that are currently unserved. Consequently, no community anchor institutions or critical facilities are passed under this proposed application. **Proposed Services:** The project will offer 3 service level offerings for broadband service. Level one will offer 1.5Mbps downstream and 1.5Mbps upstream. Level 2 will give 3.0Mbps downstream and 2Mbps upstream. Level 3 will offer 20Mbps downstream and 2Mbps upstream. In addition to the broadband services, subscribers will be offered telephone service over the same facilities. The proposed

facilities will allow a migration to video offerings in the future. Non-discrimination and Interconnection Obligations Approach: The proposed project will be consistent with the NOFA's non-discrimination and network interconnection obligations as described in section 22 Description of Network Openness.

Broadband Technology: The broadband system to be deployed under this application will be based on a FTTP network design that brings fiber directly to households and businesses in the PFSAs. This project will use single mode fiber optic cable and high speed lightwave equipment to transmit signals from the central office or electronics cabinet site to the customer premises. The FTTP technology is standards based GPON (ITU G.984) which gives the most economical design for low density rural applications. GPON equipment provides 2.4 Gbps downstream and 1.2 Gbps upstream shared among no more than 32 subscribers and can easily provide 100 Mbps to each subscriber. As mentioned earlier, 100 Mbps is expected to meet the bandwidth needs of a majority of customers for the next several years without any equipment upgrades. This technology is well proven and has a good track record of reliability and dependability.

Qualifications of the Applicant: The applicant has been providing telecommunication services to the residents of Dallam, Hartley, and Sherman counties of the Northwest Texas Panhandle since 1951. XIT has been a RUS borrower and has proven leadership that has shown financial stability over the long haul. The applicant currently has an organization in place that is operating a high speed Internet system. All operational elements and systems are in place to ensure that sales, operational service and maintenance, network management, customer support, and billing functions will be available to handle this project. XIT is already in the process of deploying Calix GPON FTTP equipment in other service areas that are separate from the PFSAs included in this application and will be able to utilize their experience and skill sets from this ongoing implementation with the proposed project. The management and staff of XIT Rural Telephone Cooperative, Inc. are committed to have all necessary training and skills in place to handle this project, including all preparation and implementation work for construction rights-of-way, cable and equipment installations, the cutover sequence, and maintenance, in support of the system. XIT Rural Telephone Cooperative, Inc. also has professional engineering services available from N-Com, Inc. to assist in the implementation of this project.

Infrastructure Cost: The total infrastructure cost of this project is \$7,463,000. This includes \$6,114,000 in fiber optic plant, \$418,000 in electronics, and \$931,000 in professional services. The electronics cost includes \$90,000 in electronics placed at the subscriber location.

Subscriber Projections: Broadband subscribers are projected to increase from 124 present subscribers to 302 subscribers at the end of the 5 year period. Existing customers include customers currently served with VDSL that are located in areas outside of the PFSAs in this application.

Jobs Created or Saved: The primary jobs area will be in the construction field for the actual placement of the fiber cable and electronics. It is estimated that 10 people will be employed at the job site during construction of this project. The applicant intends to utilize existing staff to handle expanded growth as it occurs in the system to maintain the highest level of customer satisfaction. This project would have a minor impact on manufacturing jobs in the fiber optic cable manufacture and telecommunications electronics manufacture. No estimate of this impact is included. Although difficult to quantify or predict, XIT fully expects that the proposed project will provide direct benefits to businesses in the PFSAs by assisting in retaining existing business and gaining new business. This, in turn, will help save existing jobs and create new jobs for years to come.