

Broadband USA Applications Database

Applicant Name: Highland Telephone Cooperative, Inc.

Project Title: Coalfield Broadband Services

Project Type: Last Mile Non-Remote

Executive Summary

Highland Telephone Cooperative, Inc. (HTC) serves all of Morgan County, Tennessee with voice and Internet service, except a small section that includes the rural Coalfield community. All of HTC subscribers have access to affordable and reliable broadband service. However, the residents of the Coalfield community are served by a Tier 1 RBOC and do not have access to fixed line broadband services. The 24 square mile rural area is essentially ignored by the RBOC. A professional marketing survey commissioned by HTC indicates there is a strong need and desire for reliable broadband services. The purpose of this funding request is to enable HTC to expand their facilities into the Coalfield community via a last-mile network and offer broadband and video services to all of the residents. HTC has all necessary licenses to offer these services in the area, and has an established organization that has experience providing a combination of voice, video and broadband services to approximately 25,000 subscribers. The anchor institutions in the area will also be served by the new network. It should be noted that some residents can receive wireless data service that approximates broadband speeds on the download, but does not satisfy the minimum broadband speed on uploads. Also it is very expensive and unreliable as the level of service is affected by the season, foliage, weather and the number of users being simultaneously served by a wireless tower. The residents need and want fixed broadband services with a bandwidth up to 20 mbps and HTC would like to satisfy this need and help the community attract employers and improve the Internet service to the school and other anchor institutions. Even though HTC has adequate resources to finance a major portion of this project, it is not economically viable without grant assistance. Quite simply, the area is too sparsely populated to justify the necessary investment and HTC does not have the resources to subsidize the project. However, with the assistance of the ARRA Stimulus grant, HTC will provide this community with modern broadband communication and help improve the quality of life in the area, and especially the school. For the convenience of the reviewer, the following discussion addresses the specific points required for the Executive Summary in the application: a) Opportunity the proposed system seeks to address: Coalfield remains largely isolated from broadband services. The local school, library, emergency services, and inhabitants rely on dial-up service to access the Internet for vital information. Dial-up access creates issues with streaming audio and video use, especially impacting educational opportunities. The proposed project would provide users with the capability to access information, video, and audio resources in a more timely fashion. It will also make this rural area more appealing to potential employers. b) A general description of the proposed funded service areas: The proposed installation of last mile Fiber-to-the-Home (FTTH) infrastructure in the Coalfield, Tennessee service area seeks to provide broadband connectivity to improve information flow, communication, public safety, and distance learning opportunities. The

service area is a twenty-four (24) square mile rural region including the unincorporated community of Coalfield and the surrounding area of southeastern Morgan County approximately thirty-eight (38) miles west of Knoxville. c) Number of households and businesses passed: The community consists of 1025 households and 28 businesses. d) Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with the project: Community anchor institutions passed by the proposed network include the Coalfield School (K-12), as well as the Coalfield Public Library, Coalfield Post Office, and Coalfield Senior Citizens Center. Local emergency services are provided by the Coalfield Volunteer Fire Department. e) Proposed services and applications for the proposed funded service areas and users Proposed services for end users include broadband Internet access, video, Video-on-Demand (VoD), distance learning access, public safety communication, telecommuting, disadvantaged worker services access, and economic development improvement. Applications include home networking, E-commerce, telemedicine, E-government, electronic banking, and streaming audio and video. f) Approach taken to address the non-discrimination/interconnection obligations. Highland's proposed project as described in this application will be consistent with the non-discrimination and network interconnection obligations contained in the NOFA. Specifically, Highland will adhere to the stated principles contained in the FCC's Internet Policy Statement (FCC 05-511) dated August 5, 2005. Highland will not favor any lawful Internet applications and content over others. Highland will display any network management policies in a prominent location on its web page and will provide notice to customers of any material changes to these policies. Highland will allow its customers to connect to the Internet directly or indirectly such that the project is not a private closed network. Finally, Highland will offer interconnection, where technically feasible and without exceeding current or reasonably anticipated capacity limitations, on reasonable rates and terms to be negotiated with any requesting parties. g) Type of broadband system that will be deployed: A Fiber-to-the-Home (FTTH) outside plant network technology deployed in the service area will be aerial-mounted wireline fiber-optic cable, configured in PON (Passive Optical Network) architecture, able to support speeds in excess of 20 Gbps. h) Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure: Highland Telephone Cooperative, Inc. and its subsidiary Highland Communications have a proven track record of successful management of existing voice networks and dial-up/DSL accounts in adjacent areas. The company has established operating procedures and a trained workforce to maintain existing FTTH broadband networks. Computerized Order Entry Systems and Billing are very capable of handling the additional business volume this proposal entails. The Company maintains twenty-four hour Technical Support and a Community Portal to provide local news and content to consumers. The cooperative serves approximately 25,000 subscribers. HTC has successfully implemented a number of similar projects through the RUS program. Some of these projects included FTTH and the broadband and video services proposed for this area. i) Overall infrastructure cost of the broadband system: The overall infrastructure cost is estimated at \$2,458,004. This figure includes the design, construction, and testing of the fiber optic cable to the home. j) Overall expected subscriber projections The Coalfield Broadband Project is expected to serve a potential subscriber base of 780 households in the area. k) Number of jobs created or saved Using the guidelines published by the Council of Economic Advisors and the information posted on www.recovery.gov, it is estimated that the design, construction, and implementation of the Coalfield Broadband Services

project will create and retain the equivalent of 27 full-time equivalents (FTEs) over the course of the project's life cycle.