Broadband USA Applications Database

**Applicant Name:** Perry-Spencer Rural Telephone Cooperative, Inc. d/b/a PSC

**Project Title:** PSC - Spencer County Broadband Project

**Project Type:** Last Mile Non-Remote

_______________________ Executive Summary _________________________

a) Opportunity the proposed system seeks to address. Perry-Spencer Rural Telephone Cooperative, Inc. d/b/a PSC welcomes the opportunity to construct a Broadband Network System for Spencer County, Indiana. Spencer County has wonderful economic and community development potential, but is currently underserved with broadband offerings due to the high cost of deployment in the county. In short, Spencer County, Indiana, is an excellent candidate for the Broadband Stimulus program. PSC is the region’s leader for broadband deployment. Within its own Incumbent Local Exchange Carrier (ILEC) boundaries and throughout Perry and Dubois counties, PSC has demonstrated the ability to deploy today’s modern broadband networks, via both fiber optics and wireless. PSC has an excellent reputation, locally, statewide and nationally and would maximize the use of stimulus dollars for the residents and businesses of Spencer County, Indiana. The U.S. Economic Development Agency (EDA) has designated Spencer County, Indiana, along the new US 231 as an Economic Development Area. A US 231 Corridor Study has been completed as funded by EDA for the long-term development of this new 4-lane divided highway from I-64 to the Ohio River. By building the proposed PSC Spencer County Broadband Network, PSC will be operating a broadband network to encourage and ensure economic development along the new US 231 Highway which spans the entire length of Spencer County. From I-64 in northern Spencer County to the Natcher Bridge connecting southern Spencer County to Kentucky, this major traffic corridor with its access to the Ohio River, the federal Interstate system, and a regional railroad line makes the PSC Spencer County Broadband Network System a necessity not only for Spencer County businesses and residential users, but as a priority for national commerce. Spencer County, Indiana, with its superb national strategic location and being the home of several major national industrial companies such as AEP, AK Steel, etc., makes PSC’s proposed Spencer County Broadband Project a great applicant for the Broadband Stimulus Program. A proposed $2.2 Billion Synthetic Natural Gas (SNG) plant is also proposed along the US 231 corridor in Spencer County. This project known as Indiana Gasification, LLC currently has an application in to the Department of Energy (DOE) for a loan guarantee. To further spur economic development and grow Spencer County’s work force, it is critical that a future proof broadband network be constructed. This broadband network will have the capacity to deliver managed and unmanaged Internet access as well as managed data transport throughout Spencer County as well as to the outside world, all on an open Interconnection basis. The proposed network, once deployed, will connect or interconnect schools, libraries, health care facilities, government offices, towns and cities offering them their choice of connection type and desired applications. The proposed network will connect to PSC’s existing service area and its Regional 10 Gigabit transport and transparent LAN Network (R-Net). PSC has the core backbone network and back office facilities already in place. PSC’s R-
Net is already connecting hospitals and clinics today, in neighboring counties and communities, with 100 mbps transparent LAN connections, scalable to 1 Gigabit. In addition to the fiber optic landline solution, PSC’s Spencer County Broadband Network includes 3.65 GHz WiMAX wireless technology to serve the most rural underserved areas of Spencer County. Of the 6,732 households, business establishments, and community anchor institutions in the proposed funded service area, approximately 60% or 4,039 will be served by the WiMAX network. Many of these areas currently have few, if any, choices for broadband access. Between PSC’s proposed Spencer County Broadband Network and PSC’s existing service area in northern Spencer County, practically 100% of Spencer County will have broadband service with a minimum throughput speed of 3 Mbps.

b) General description of the proposed funded Areas. The PSC Spencer County Broadband Project is located in Spencer County, Indiana. The proposed funded service area includes: Dale, Gentryville, Santa Claus (portion), Chrisney, and Rockport. These communities are Census 2000 designated communities. The Town of Richland, Indiana has been incorporated since the 2000 Census and is also included within the service area. The funded service area includes all of Spencer County with the exception of PSC’s St. Meinrad and Santa Claus ILEC territories and areas not covered by the proposed project’s infrastructure. This accounts for approximately two-thirds of Spencer County, IN.

c) Number of households and businesses passed. Based upon the 2000 Census, the proposed funded service area encompasses 6,452 households with a population of 15,592 contained within 1,126 census blocks. The total number of businesses within the proposed funded service area is 171 based upon the 2002 Economic Census.

d) Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with project (e.g., health care, education, libraries, etc.) The number of community anchor institutions to be served by the proposed broadband network is 109. This includes government/municipal offices, emergency service facilities, educational facilities, libraries, and community service and economic development organizations.

e) Proposed services and applications for the proposed funded service area. The proposed services offered via the proposed PSC Spencer County Broadband Network will be Internet access, managed data services for entities with multiple locations such as schools, health care clinics and hospitals, county government and others if desired by those entities, voice services, and video. The FTTH network will accommodate not only applications of today but the future. On the Wireless 3.65 GHz WiMAX system coverage area, Internet access is the planned service and will be able to accommodate today’s Internet applications including streaming video.

f) Approach to addressing the non-discrimination and interconnection obligations. For both the fiber network and wireless network design, PSC will build a layer-2 network based on Ethernet and 802.1q VLAN technologies. Both the wireless network and fiber network will be aggregated on the 10Gb fiber core and transported to PSC’s Santa Claus central office. Layer-2 separation between service providers will be accomplished using 802.1q VLANs. Each service provider can then offer layer-3 (IP) services over the assigned VLAN(s). The interconnection point will be the Santa Claus central office. As new Metro Ethernet standards emerge (e.g. Provider Backbone Bridges (PBB) and Provider Backbone Transport (PBT)), PSC will introduce these technologies into our layer-1/2 network.

g) Type of broadband network to be deployed. PSC proposes to construct a combination fiber to the premise (FTTP) 2.5 Gb GPON and 3.65 Ghz WiMAX broadband network. The fiber-based wireline network will serve Dale, Gentryville, Santa Claus (portion), Chrisney, Rockport, and Grandview in addition to unincorporated areas of concentrated development. All other areas will be served by the WiMAX fixed wireless network based upon the WiMAX 802.16e specification using the 3.65Ghz “pseudo-licensed” frequency band.
wireless network will be installed on 12 radio tower and water tank structures throughout the Spencer County, Indiana. h) Qualifications of applicant. PSC has been in the telecommunications business since 1953. In 2006, PSC deployed a fiber to the premise (FTTP) network in Ferdinand, Indiana to provide competitive telecommunications services including voice, video and data. PSC has been operating an unlicensed fixed wireless system of first generation starting in 2002. PSC has been an Internet Service Provider (ISP) since 1995 and offering DSL to its PSC cooperative members since the year 2000. PSC has existing management, back office, sales, marketing, and technical departments to maintain and operate the proposed system. PSC has recently added two 3.65 GHz WiMAX access points, one in Jasper, Indiana and one in Tell City, Indiana. The populations of both communities are large enough to support such an addition to our fixed wireless network. This further proves that PSC knows the technology it is deploying and can sustain such a network. i) Overall infrastructure cost of the broadband system. Based upon the current estimates, the cost of the proposed broadband network is $20.3 million. j) Overall expected subscriber projections for the broadband system. Expected subscriber projection for the proposed broadband network is 3,029 or approximately 45% of customers passed by end of Year 3 coinciding with the final completion of network construction. This includes households, business establishments and community anchor institutions. PSC will maintain subscriber levels during last 2 years of 5 year program. k) Number of jobs created or saved as a result of project. Based on the stimulus and other funds to be expended on this project, 170 jobs would be saved or created. This would be by either, direct, indirect or induced project related activities. Overall, funding this grant will transform long-term economic opportunities for the citizens of Spencer County to be served by the proposed broadband network. This investment combined with other private and public investments will continue to provide the groundwork for future generations.