



Executive Summary:

West Kentucky Rural Telephone Cooperative Corporation, Inc. (WK) is planning to engage a \$123,800,000 fiber optic construction project to provide the most advanced broadband infrastructure as technically feasible to the rural citizens of Southwest Kentucky and Northwest Tennessee. The project meets the objectives of the American Reinvestment and Recovery Act (The Recovery Act) for broadband deployment to underserved rural areas through the Broadband Initiatives Program (BIP) of the Rural Utilities Service (RUS). The project encompasses a 100% rural area. Broadband in the service area today is underserved. Less than 40% of the available households have a broadband connection at 768kps or higher. By installing fiber within the underserved service areas, broadband will become more affordable with speeds up to 20mbs. In addition, WK has a partnership arrangement with West Kentucky Community Technical College (WKCTC), for conducting an extensive training program for sustainable broadband adoption. WK has laid the foundation with local governments and qualified industry contractors to commence construction immediately. All construction will be substantially completed in two years, and fully completed within three years. If approved, the project will be fully funded with \$10m in cash; \$85.35m from loans, and \$28.45m in grants. At the conclusion of the project, WK expects to have almost 70% of its customer base, over [REDACTED] customers, on broadband, with data speeds at 768kps or higher.

A fiber optic network is virtually limitless in its data applications. It provides a data network framework to enable a host of advanced services be transmitted across its path, at resounding speeds. Fiber is theoretically unlimited in bandwidth capacity. Its installation will leapfrog the latent copper network, and will "future proof" new applications as they arise, in any future period that one can imagine. The project will stimulate economic development and create jobs.

This application covers the Southwest Kentucky counties of: Calloway, Carlisle, Fulton, Graves, Hickman, and Marshall; and the Northwest Tennessee Counties of Henry, Weakley, and Obion. That area has a population of 48,229. The total households are 22,869. In addition, fiber broadband would be available to 108 critical public users. With a fiber installation, these organizations could be



hooked into sharing and multiple networks. For example, this type of an arrangement is currently in place with the Graves County School District. WK has linked all schools with fiber.

The affected counties and cities are all low-income areas. The medium average income of approximately \$31,577 is 35% lower than the national average; ranking the area in the lowest 10% across the nation. The unemployment rate for these counties ranges from 6.1%.to 10.6%. And a high percentage of the populace receives some form of monthly government low-income assistance.

For the area, this proposal serves to benefit a population, in the college age category, who will need skills and knowledge to earn a college degree. Only 13.2% of the region's population has earned a college degree. Applying broadband across this region will further advance educational possibilities into this region, through online course arrangements. WK has a partnership arrangement with WKCTC who has committed to seek funding for sustainable broadband adoption, if WK's project is approved.

Classified as a telephone "Cooperative", WK is a non-profit organization, formed for the mutual benefit of its "members". WK currently serves, approximately [REDACTED] rural customers. As a cooperative serving a large geographic but sparsely populated, low income population, the corporate goal has remained the same throughout the years; to provide the best technology at affordable prices to all members and to ensure that excess revenues are put back into the company for advanced services or distributed back to members as patronage.

Specifically, the demographics of this region and the provisioning of service by WK, meet all the guidelines for broadband initiatives as outlined in the 2009 Recovery Act. The Act sets forth the need and critical components to deploy advanced broadband as ubiquitously as possible to non-advantaged economic areas, such as those served by WK. The awarding of this grant to WK will enable WK to rapidly build an advanced fiber-optic network extensively throughout and to all of the populace within its service areas. In turn, this deployment will provide jobs, educational opportunities, and advance the opportunities for healthcare.



The deployment of fiber broadband across this region will greatly enhance the areas' ability to respond to emergency situations. Recently, Southwestern Kentucky and Northwest Tennessee experienced an ice storm, in late January of 2009, that was the largest natural disaster in its recorded history. To maintain telephone service, emergency power was provided at 232 remote locations, 3339 troubles were reported. WK immediately rallied to restore essential services during a critical five week period. WK served as the headquarters and rally point within its region, providing the operational post for governmental and military personnel to respond to the emergency. In addition, WK was able to continue to provide its essential telephone service throughout its area, with the assistance of other telephone cooperatives, despite its customers not having electricity. A single provider of fiber broadband network across this network would facilitate all city and governmental agencies to share information, and meet the public safety need in emergency and non-emergency situations.

WKRT is "shovel-ready" to begin building a fiber optic broadband system for all twenty-two of its exchanges. For the first four exchanges, engineering, design, bidding, and the construction contracts for the construction contractor have already been initiated. In addition the engineering design work has been initiated for three additional exchanges. In all, construction work on the first seven exchanges will initiate this fall, with full completion expected by the end of the fourth quarter of 2010. Fiber-based customer services will begin launching as work is completed during the second quarter of 2010. The work on the second seven exchanges will begin in the fourth quarter of 2010. Subscribers will begin to be cut into service beginning in the first quarter of 2011. All work on the second set of seven exchanges will be complete in the third quarter of 2011. The work on the final eight exchanges will begin in the third quarter of 2011. Subscribers will begin to be cut into service in the second quarter of 2012. All work will be completed by the third quarter of 2012. All of the project components will meet the Buy American provisions of the application.



For this construction activity, WK estimates that 272 jobs will be necessary within the outside construction crews. Internally, WK will initially staff to support this effort, and hire additional staff for marketing and consumer support. Throughout this project, internal staff could grow by 25-33%; or 20-30 new employees. For example, three permanent field positions have already been advertised and filled.

As this fiber is deployed, the region will have a variety of data, voice and video services available. The fiber will allow WK to increase data speeds to all customers, thus allowing more sophisticated consumer applications. Prospective customers will be able to bundle services and receive discounts to make the service more affordable. WK will aggressively market its fiber applications throughout the initial two year construction period and in subsequent periods. A summary of the projected customer penetration rates is shown below.

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
<768kps	279	223	188	15		
768kps<	252	257	222	225	124	138
6mps	0	1	4	8	9	2
20mps	0	1	2	3	10	10
Voice	500	564	524	512	472	422
Video	280	363	324	350	314	250

WK is currently partnering with the Purchase Area Development (PADD) and Graves County Growth organizations to spur economic growth. WK has already met with PADD and its members on two occasions this past spring, announcing the Recovery Act, and WK plans. WK has widespread support within its communities for this project. As this region has lost jobs, fiber access is widely recognized as its importance to the future economic growth for this region.

WK has an experienced management team with a proven track record, over 50 years, for serving the public. WK is recognized as an industry leader. Its CEO, Trevor Bonnstetter, serves on the Board of Directors for NECA and NRTC. WK was recently selected as a "beta" test site to introduce video, IPTV service, with



MPEG-4 technology. The Company is now a modern communications company, with 100% digital switching and transport: only the last mile, remains as copper. WK has maximized the use of that copper for customer applications. It is now time to upgrade those facilities to fiber, to bring advanced communications to rural.

It is for these reasons that WK requests this grant. Its award will spur immediate educational and economic growth within this rural low income region, to not only bring direct jobs, but serve to spur economic growth as fiber broadband connectivity is available across this region. This would thus allow rural Americans to participate, rather than to be left behind as the data needs continuously grow in a global economy.