

A. Opportunities the Proposed System Seeks to Address

Kennebec Communications LLC’s (KC) proposed Public Safety wireless broadband network project will provide high speed broadband services to public safety, households, businesses, and key community organizations that are currently not served with such high speed wireless services. These broadband capabilities will significantly enhance public safety’s effectiveness, create the potential for increased business growth, and improve the quality of life for residents throughout the state of South Dakota.

B. General Description of the Proposed Funded Service Areas

KC will provide the network and backbone for 4th generation (4G) broadband capabilities to the State of South Dakota, so that it can provision these capabilities to its constituent public safety end users and other agencies. The State will be able to configure the type and level of services that each end user will receive, designate authorized users, and sub-prioritize access among State users. KC is thus providing what is best characterized as a middle mile system. Incidental to this public safety-first operation, KC will provide statewide mobile broadband to households, businesses, and key community organizations that are currently not served by 4G wireless service in South Dakota today. This commercial component will enhance sustainability of the public safety network, a concept that has been advocated by the FCC. Public safety entities will be able to send their communications on a priority basis, so that commercial traffic will not interfere with public safety operations.

The proposed project will provide broadband to a service area consisting of virtually the entire state of South Dakota, population 804,194. Many parts of South Dakota are unserved or underserved in general. More importantly for the proposed network, the public safety community is entirely unserved with respect to wireless 4G Long Term Evolution (LTE) broadband capabilities such as those to be offered by KC. The use of LTE will also make the proposed system interoperable with other public safety networks, as LTE has been endorsed by major public safety organizations as the chosen technology for broadband deployments.

C. Number of Households and Businesses Passed

The proposed project would pass [REDACTED] households and [REDACTED] businesses. If awarded funding for the project, KC would be able to provide broadband services to virtually 100% of these households and businesses. More importantly, 100% of public safety users will be passed. [REDACTED]

D. Number of Community Anchor Institutions, Public Safety Entities, and Critical Community Organizations Passed and/or Involved with Project

KC's project involves and passes a number of community anchor institutions, public safety entities, and critical community organizations. The proposed project will greatly improve the ability of [REDACTED] key community public safety Entities to provide public services through the planned broadband services and enhanced communications capabilities.

KC plans to also cover virtually all [REDACTED] square miles of the Tribal lands in the State to serve the Tribes Critical Public Safety department needs. The following tribes that will benefit from this 4G LTE wireless network:

Cheyenne River Sioux Tribe
Crow Creek Sioux Tribe
Flandreau-Santee Sioux Tribe
Lower Brule Sioux Tribe
Oglala Sioux Tribe
Rosebud Sioux Tribe
Sisseton-Wahpeton Oyate
Standing Rock Sioux Tribe
Yankton Sioux Tribe

E. Proposed Services and Applications for the Proposed Funded Service Areas and Users

LTE 4G wireless technology will enable the company to offer a variety of communications and video capabilities, including interactive two-way broadband services, carrier-class telephony, digital multimedia and VoIP. Once a fiber distribution network is constructed to each tower, bandwidth to the tower is limited only by the electronics that are placed on the fiber. KC's system will be able to provide the 4G wireless services the public safety agencies, residents, businesses, and other local/state public institutions need today. It will also be easily upgradable in the future as the end user's needs evolve, since the LTE network will follow the 3GPP Global standard. This network is designed as an all IP network, end to end, from the ground up. This will allow the network to interoperate with any other LTE network using the same 700MHz spectrum band, as well as other IP networks for IP network peering.

By using LTE technology, KC's system will be consistent with the path chosen by the largest carriers in the country, ensuring more affordable and available equipment.

F. Approach to Addressing the Non-discrimination and Interconnection Obligations

KC will strictly adhere to the Non-Discrimination and Interconnection Obligations outlined in the NOFA. The network will be available to any and all end-users subscribing to the service(s) provided by the service provider. All subscribers that are in the defined census blocks (state-wide) would be able to obtain service from the service provider.

The proposed network would not discriminate in connection with any lawful Internet applications or content, nor degrade or prioritize any data transmitted over the network based on its source, ownership, or destination. End-users will be able to choose an Internet package that defines the peak speed, and except for accepted management practices will not be monitored on an individual basis for content or application usage.

All network management practices and policies such as these will be posted in a conspicuous way on the KC's website, and all users will be provided notice of any changes.

KC will offer interconnection, where technically feasible without exceeding current or reasonably anticipated capacity limitations, at reasonable rates and terms to be negotiated with requesting parties. KC is committed to conducting such negotiations in good faith, using binding arbitration for disputes.

G. Type of Broadband System that will be deployed

KC is proposing to construct a fiber network outside plant to each end point tower, electronics network infrastructure, and LTE wireless electronics infrastructure. The wireless network architecture would provide the public safety users and other agencies access to broadband data services, voice and multimedia over one unified network which is based on industry standards. It is KC's intent to deliver the highest quality, broadest range of telecommunications services that are available today, and the maximum bandwidth to the system users. Services that will be available include high-speed Internet access, digital multimedia (video), and voice telephone services via VoIP.

H. Qualifications of the Applicant to Implement and Operate a Broadband Infrastructure, and/or be a Sustainable Broadband Services Provider

KC consists of 11 South Dakota LECs that have been working together for decades on a variety of joint projects designed to bring advanced services to South Dakota that no single company had the resources to implement. KC's member companies each provide telecommunications services to many of the communities across South Dakota, and KC itself is headquartered in Kennebec South Dakota. Together, the members have joined forces to help bring centralized equal access and high capacity, survivable fiber rings to the State, and to successfully acquire statewide spectrum for use in providing advanced telecom services. In this regard, KC can operate the proposed system with its own spectrum, and thus does not need a waiver to use public safety broadband spectrum. The latter will be incorporated into the network design if desired by the South Dakota public safety community, with the blessing of the Public Safety Spectrum Trust and FCC.

The key team members working on this wireless plan have more than 160 years of wireless and telecommunications industry experience. The management team is led by Rod Bowar as General Manager. Mr. Bowar has over 30 years of experience in the telecommunications industry. KC's myriad of experienced key staff will manage their established organization to successfully implement and operate the proposed wireless broadband infrastructure. Key information demonstrating the qualifications of KC has been included in the application.

I. Overall Infrastructure Cost of the Broadband System

The overall cost of the broadband system is \$76,170,531.

J. Overall Expected subscriber Projections for the Project



K. Number of Jobs Estimated to be Created or Saved

The proposed services will provide an opportunity for business and organizations to grow within the funded service area. The following is a summary of jobs created or saved in the first five years.

- Man Hours created by construction:
- OSP Construction: 12600
- Network Electronics Installation: 4800
- Tower Construction: 13500
- Environmental Reports and Permitting: 4800
- Tower Site Acquisition: 7800

Jobs:

Kennebec Communications LLC: 32 jobs

Broadband Technology	Jobs per Million \$ Invested
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Wireless Weighted Average Multiplier	14.6618
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Total estimated new private sector jobs from this project: 1,114 new jobs

[Source: Economic Effect of Tax Incentives for Broadband Infrastructure Deployment, Empiris LLC, prepared for FTTH Council, Jan. 2009]