



CITIZENS MUTUAL TELEPHONE COOPERATIVE
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March 17, 2014

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: WC Docket No. 10-90, Expression of Interest

Ms. Dortch;

Citizens Mutual Telephone Cooperative (Citizen's) hereby provides this "Expression of Interest" in conjunction with the Commission's order¹ initiating rural broadband experiments to provide robust, scalable high-speed broadband to unserved locations in high-cost areas.

Background

Citizens Mutual Telephone Cooperative (Citizen's) is an incumbent local exchange carrier (ILEC) and an eligible telecommunications carrier (ETC) located in southern Iowa. The company has twenty-one (21) employees and has provided voice service to rural Iowa customers for over 100 years.

Citizens provides voice, video, and data services as well as advanced services such as home / business monitoring and hosted PBX services in its ILEC service territory. Citizen's customers have expanded their use of the company's data network substantially and continue to use more bandwidth each year. Citizen's experience with its customers provide clear evidence of the demand for high-speed broadband in rural Iowa.

Description of the Project

Citizen's has undergone a revitalization of its ILEC network infrastructure to meet the increased demand for broadband services by replacing its aging copper facilities with a Fiber to the Home (FTTH) network. During each of the past five years, the company has installed 30-45 miles of fiber optic cable in its effort to bring the latest in technology and advanced services to rural Iowa customers.

¹ See Technology Transitions et al., GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 20 14).

Customers in the rural areas surrounding Citizens Mutual's service territory do not have access to high-speed broadband networks. Leveraging the investment in the existing network infrastructure, Citizens Mutual seeks to expand its network to provide FTTH services to unserved high cost rural customers in Appanoose, Davis, Monroe, Van Buren, and Wapello counties in Iowa. The company intends to deploy FTTH technology to the unserved eligible locations within the geographic area indicated below.

Proposed Technology

Citizens Mutual Telephone Cooperative will initially deploy a FTTH network using fiber electronics capable of providing broadband in a range of service options up to one (1) Gigabit Ethernet (GE) service. Greater broadband speeds are achievable with current technology and will be deployed to meet demand on an as needed basis. A network interface device will be installed at each customer location and will be equipped with battery backup capability in case of electrical power outages. The company will utilize its existing middle mile infrastructure to minimize construction cost. The company also has connections to a statewide network which provides connectivity to internet backbone providers.

Citizen's proposed solution will be deployed over an existing FTTH system with the capability to deliver 2.1 Gbps through either a Gigabit Passive Optical Network (GPON) solution or an Active Gigabit Ethernet (GE) solution using the same platform. This system allows the flexibility to meet current and future bandwidth requirements of video, data and voice and easily move to full gigabit ethernet solution if required. The term gigabit community already describes the level of service available to Citizen's current FTTH customers and the company looks to further expand the solution into the proposed rural areas.

Citizen's system is also scalable to a 10 gigabit capacity by simply changing out optical electronics within the deployed system. This allows Citizen's to increase bandwidth capacity to residential customers, businesses, or anchor institutions to meet future bandwidth demands. In addition, the proposed fiber is capable of providing 100 gigabit connections over 40 wavelengths with today's technology. Once fiber is deployed, the only limitations are the developed electronics available in the market place.

Anchor Institutions

Based on the proposed service area, there are no anchor institutions that are incapable of accessing broadband service at a minimum speed of 3 Mbps downstream / 768 kbps upstream. However, deployment of high speed broadband service will enable these rural customers to access information and services offered by anchor institutions. A listing of anchor institutions that are currently served by Citizen's Mutual Telephone is included in Attachment 1.

Educational institutions in Iowa are implementing laptop programs which provide students with a laptop computer to enhance their educational experience. Without access to high-speed broadband service, these students are left behind.

Proposed Services and Pricing

The company will offer Data, Voice, and Video services to customers within the proposed rural census tracts. Citizen's will offer broadband service at a minimum speed of 6 Mbps

Downstream / 1 Mbps Upstream for \$45 per month with various service tiers up to 20 Mbps downstream / 4 Mbps upstream for \$100 per month. Additional service tiers up to 1 Gbps will be added as demand for those services becomes evident.

Geography and Eligible Locations

The company proposes to provide voice, video, and data services through a state of the art fiber network in the following census tracts:

State	County Name	Census Tract	Eligible Locations	Extremely High Cost Locations	Total
IA	Appanoose	19007950100	287	55	342
IA	Davis	19051080100	78	27	105
IA	Davis	19051080200	37	10	47
IA	Monroe	19135070200	235	51	286
IA	Van Buren	19177950200	218	50	268
IA	Wapello	19179960700	813	34	847
IA	Wapello	19179960800	2	0	2
IA	Wapello	19179961000	15	0	15
IA	Wapello	19179961100	32	3	35
	Total		1,717	230	1,947

Project Cost / Funding

The estimated construction cost is a high level estimate based on historical data. The total estimated construction cost for the project is \$12,655,500. Citizens Mutual Telephone is seeking one time funding of \$12,655,500.

Citizen’s Mutual Telephone Cooperative appreciates the opportunity to provide this expression of interest for funding of rural broadband experiments. Please contact the undersigned with any questions.

Respectfully submitted,

/s/ Joe Snyder
 Joe Snyder
 General Manager

**Citizens Mutual Telephone Cooperative
List of Anchor Institutions**

Attachment 1

Davis County High School
Davis County Middle School
Davis County Elementary School
Bloomfield public library
Davis County Hospital
Davis County Auditor
Davis County Treasurer
Davis County Clerk of Court
City of Bloomfield
Bloomfield Fire Department
Drakesville Fire Department
Floris Fire Department
Pulaski Fire Department
Davis County Sheriff Department
Bloomfield Police
Davis County PSAP
Indian Hills Community College Bloomfield Center
Iowa State Extension Office