

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Expression of Interest under Federal Communications Commission (FCC) Rural CAF Experiment Program,  
WC Docket 10-90

March 7, 2014

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## **BACKGROUND AND NATURE OF SUBMITTING ENTITY**

Bowling Green Municipal Utilities (“BGMU”) submits for your consideration an Expression of Interest in participating in the Rural CAF Experiment Program. BGMU is a municipally-owned utility providing electric, water/sewer and telecommunications services to approximately 30,000 customers in Bowling Green, Kentucky.

Organized under Kentucky Revised Statutes 96.550-.900, and locally via the City of Bowling Green’s Code of Ordinances, BGMU is governed by a five-member Board of Directors appointed to four-year terms by the Mayor. BGMU and its predecessor entities (the Electric Plant Board and the Water-Sewer-Sanitation Commission) have been providing quality, customer-focused utility services since 1942 (electric) and 1928 (water).

BGMU’s employees are dedicated to providing superior utility services to our customers. BGMU performs its utility functions through three separate and distinct operating divisions: Electric, Water-Sewer, and General Services. BGMU’s Electric Division owns and operates an electric distribution system to serve its customers, including 350 miles of circuits, three delivery points connecting BGMU to its wholesale power provider, and 13 distribution substations. BGMU’s Water-Sewer Division owns and operates a water treatment plant, a wastewater treatment plant, 320 miles of water transmission and distribution lines and 280 miles of sewer interceptor and collector lines. BGMU’s General Services Division, d/b/a BGMU Fiber, owns and operates its own fiber optic plant, including 200 fiber miles in and around the City of Bowling Green.

BGMU Fiber offers the following services:

- Internet/Broadband
- Point-to-point fiber connections
- V-LAN connections
- VOIP telephony
- Rentable rack space for co-location or primary data storage in Tier I and Tier II facilities
- Dark fiber leasing

These services are currently offered to commercial, governmental and institutional customers. BGMU also coordinates telecommunication services to surrounding communities (i.e., Glasgow, Hopkinsville, Morgantown, Franklin) for customers with multiple locations via agreements with other municipally-owned networks.

BGMU’s Internet connectivity offers symmetrical bandwidth upstream and downstream speeds, dedicated bandwidth (no sharing), as well as static IP addresses. These features alone are superior to Internet services offered by other ISP’s.

**GEOGRAPHIC TERRITORY AND ANCHOR INSTITUTIONS**

BGMU submits this Expression of Interest for a proposed experiment that would target eligible unserved and underserved portions of Warren County, Kentucky. These targeted areas include Census blocks contained within Census tracts deemed eligible by the FCC’s program rules. We have included a list of the targeted Census blocks as Attachment 1. We have also included a map of Warren County with the approximate location of targeted areas highlighted (Attachment 2).

The following table lists community anchor institutions that we would anticipate serving:

CENSUS TRACT	COMMUNITY ANCHOR INSTITUTIONS
212270108.01	<ul style="list-style-type: none"> <li>• Greenwood High School</li> <li>• Drakes Creek Middle School</li> <li>• Cumberland Trace Elementary School</li> <li>• Greenwood Commerce Park</li> <li>• AT&amp;T Point of Presence (POP)</li> <li>• Basil Griffin Park</li> <li>• Warren County Parks and Recreation Administration</li> <li>• Bowling Green Fire Department – Station 6</li> <li>• Warren County Library – Bob Kirby Branch</li> </ul>
212270112	<ul style="list-style-type: none"> <li>• Kentucky Community and Technical College               <ul style="list-style-type: none"> <li>– Advanced Technology Institute</li> <li>– Main Campus</li> </ul> </li> <li>• Warren Central High School</li> <li>• Warren Elementary School</li> <li>• Bowling Green fire Department – Station 4</li> </ul>
212270113	<ul style="list-style-type: none"> <li>• Bowling Green Housing Authority</li> <li>• Bowling Green Fire Department - Station 5</li> <li>• GM Corvette Assembly Campus</li> <li>• National Corvette Museum</li> <li>• North Industrial Park</li> </ul>
212270115	<ul style="list-style-type: none"> <li>• Alvaton Elementary School</li> <li>• Alvaton Volunteer Fire Department</li> </ul>

CENSUS TRACTS	COMMUNITY ANCHOR INSTITUTIONS
212270116	<ul style="list-style-type: none"> <li>• North Warren Elementary School</li> <li>• Oakland Elementary School</li> <li>• Smiths Grove Rural Fire Department</li> <li>• Warren County Library – Smiths Grove Branch</li> <li>• Smiths Grove City Hall</li> </ul>
212270117	<ul style="list-style-type: none"> <li>• Kentucky Community and Technical College – Transpark Center</li> <li>• Warren County Area Technology Center</li> <li>• Green River Regional Educational Cooperative</li> <li>• Warren East high School</li> <li>• Warren East Middle School</li> <li>• Bristow Elementary School</li> <li>• Kentucky Tri-Modal Transpark</li> </ul>
212270118	<ul style="list-style-type: none"> <li>• Richardsville Elementary School</li> </ul>
212270119	<ul style="list-style-type: none"> <li>• South Warren High School</li> <li>• South Warren Middle School</li> <li>• Rich Pond Elementary School</li> <li>• Plano Elementary School</li> <li>• Phil Moore Park</li> <li>• Michael Buchanon Park</li> <li>• Plano Volunteer Fire Department</li> </ul>

Because BGMU does not provide electric, water, sewer or fiber-optic telecommunication services to the Project area, we are not familiar with, nor have access to customers or household data files to provide an estimate of the number of households or businesses that could be served by this Project at this time.

**PROPOSED TECHNOLOGY**

BGMU Fiber currently owns and operates a fiber-to-the-premise (FTTP) Network utilizing a Passive Optical Network (PON) topography. For purposes of this rural experiment, BGMU would deploy infrastructure similar to that found in the City of Bowling Green, with the installation of redundant routing when feasible. The exact location of fiber routes, network nodes and PON cabinetry would be determined following a more detailed technical plan. The specific telecommunication services offered in this Project area would also be similar to that found in the City of Bowling Green.

**SCALABILITY**

As with most FTTP networks, scalability is easily accomplished via software parameters (for existing customers), electronic equipment upgrades, PON cabinetry, and fiber drops. In addition, the Bowling Green market is blessed with four national carrier POPs (AT&T, Windstream, Century Link, and Level 3) for “on-ramps” to Internet traffic.

## **LOCAL GOVERNMENT SUPPORT FOR PROJECT**

BGMU Fiber has long been engaged in Warren County's efforts to expand broadband services to rural residences and businesses in the county. Capital funding has always been an issue. This FCC Project has the potential to solve that issue (the lack of broadband availability) currently championed by the Warren County's Judge-Executive. BGMU does not anticipate any financial contributions from city, county or state governments, but we do expect local governments to collaborate with BGMU to streamline permitting and other construction-related issues.

## **EXISTING PROVIDERS**

Incumbent carriers (AT&T and Windstream) offer very limited telecommunication services in the targeted areas covered by this Project. Closer into the City's edges, more service providers with faster connected services become available. It is anticipated that the fiber optic build-out envisioned by this Project would greatly enhance (both speed and reliability) the wireless Internet services currently offered in the most remote and hard-to-service areas of the County.

## **PROJECT FUNDING REQUEST**

Based on BGMU Fiber's initial evaluation of the proposed service areas, BGMU estimates that our total capital investment would be \$1,880,000. In addition, since some of the more "remote" fiber runs (primarily to remote school facilities) would require the payment of annual pole attachment fees to the local cooperative power company in advance of contracted service revenues from the school board, BGMU would seek assistance for on-going operations support. BGMU estimates it would require approximately \$42,000 annually for on-going operations support.

## **PROJECT TIMELINE**

Based on BGMU fiber's existing plans, we would anticipate procuring materials (fiber optic cable, hardware, PON cabinetry) and commence with engineering a fiber-plant design immediately after receiving notice of funding for this experiment. Based on BGMU Fiber's experience and familiarity with existing pole infrastructure, we would anticipate to begin serving customers within 18 months.

**CONTACT INFORMATION**

BOWLING GREEN MUNICIPAL UTILITIES  
801 CENTER STREET  
P.O. BOX 10300  
BOWLING GREEN, KY 42101  
270-782-1200

MARK IVERSON, GENERAL MANAGER  
270-782-4338  
miverson@bgmu.com

TERESA NEWMAN, BGMU FIBER MANAGER  
270-782-4542  
tnewman@bgmu.com