DATE: Wednesday, March 5, 2014

FROM: Daniel Frizzell, Director of Broadband Services
Blue Ridge Mountain EMC
PO Box 9
Young Harris, GA 30582

TO: Federal Communications Commission (FCC) Staff

SUBJECT: Expression of Interest – Rural Trials
Docket No. 10-90

Background

Blue Ridge Mountain EMC is a member-owned electric cooperative serving approximately 50,000 residential and commercial customers in Clay and Cherokee counties in North Carolina, and Towns, Union and Fannin counties in Georgia. BRMEMC has been in business as an electric cooperative since 1937, as an Internet Service Provider since 2002, and has been aggressively building a state-of-the-art fiber optic network since 2006. We currently provide Fiber to the Home & Business (FTTH&B) to approximately 4,000 customers across our service territory which is located in remote, rural and mountainous southern Appalachia. We maintain approximately 700 miles of existing fiber optic cable that is used both for our electric plant as well as to serve our members with direct broadband services. Our members have asked us to continue to expand our existing infrastructure, yet with a customer density of just over eight (8) customers per mile, the economics of rapid expansion has not been financially feasible without outside assistance. BRMEMC has successfully completed several state and federally-funded grant projects aimed at expanding the overall fiber network. The WNC-EdNET project in Western North Carolina was successfully completed and brought fiber-optic connectivity to all rural schools in the six westernmost counties in the region. Additionally, BRMEMC successfully participated in and completed the first funded and completed BTOP project under the ARRA. This $42 million project created a robust backhaul network to serve a previously unserved and underserved area with transport access.

As has already been stated, Blue Ridge Mountain EMC has extensive experience building fiber optic infrastructure, and already has vendor supply chains in place, as well as the equipment necessary to install and maintain fiber optic lines. We also have existing right-of-way agreements in place. Blue Ridge Mountain EMC has a commitment to our member-customers to bring them high speed
broadband services and create a positive atmosphere for economic development and entrepreneurship. Our current customer base includes four school public K-12 school systems, a community college and a private college campus. We serve two library systems which cover all five of our service-area counties. Blue Ridge Mountain EMC supplies broadband services to four county governments and two city governments across our two-state service area. We also serve two rural hospital systems, a number of medical specialty offices, and various doctors’ offices. We also provide service to most of our region’s largest manufacturing and retail/commercial industries.

Blue Ridge Mountain EMC would like to continue to expand its fiber optic network to include more of our rural residential areas where high speed access is becoming increasingly important, yet the cost to build remains prohibitive due to customer density issues. Antiquated and ailing copper networks are sometimes available in these areas, but bandwidth capacities and speeds remain painfully low and slow, when available at all.

Blue Ridge Mountain EMC at this time does not have an ETC license, but if funding were to be provided we would meet the requirements set forth by the FCC.

**Geographic Territory**

Blue Ridge Mountain EMC currently serves a territory spanning 114 square miles. Our cooperative maintains 6,000 miles of distribution line, 32 miles of transmission, and 700 miles of fiber optic line. While significant strides have been made since 2006 in terms of homes-passed with fiber optic line, the stark reality is that we still have a long way to go to get fiber optics to all of our member-customers. Through the process of this EOI, Blue Ridge Mountain EMC is proposing to serve its remaining territory with FTTH. We cover all or part of Clay and Cherokee counties in North Carolina, and Towns, Union and Fannin counties in Georgia. We propose to provide 30,000 additional members with the opportunity to access high speed broadband services. Our average customer density system-wide is 8.2 per mile, and our density for projects funded under this EOI is estimated to be 10.53 per mile. Some of the areas we plan to serve under this project are underserved with the majority of the project area being significantly underserved with antiquated copper technology.

Our electric system covers all or portions of the following Census Blocks
(Census blocks taken from GIS mapping sources):

<table>
<thead>
<tr>
<th>Service County</th>
<th>Census Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherokee County, NC</td>
<td>930300, 930400, 930500, 930601, 930602</td>
</tr>
<tr>
<td>Clay County, NC</td>
<td>950100, 950200</td>
</tr>
<tr>
<td>Fannin County, GA</td>
<td>050100, 500500</td>
</tr>
<tr>
<td>Towns County, GA</td>
<td>960100, 960200, 960300</td>
</tr>
<tr>
<td>Union County, GA</td>
<td>000101, 000102, 000201, 000203, 000204, 000205</td>
</tr>
</tbody>
</table>
List of Anchor Institutions

We are currently serving most of our Anchor Institutions with our existing system. We have had interest from some of the county governments to serve their outlying Fire and Rescue stations, voting precincts, manned solid waste sites, etc. Additionally, we have been challenged by our local school districts to attempt to find ways to reach students enrolled in their systems, including those who may be home-bound or unable to attend school for long periods of time due to other issues. This project would allow us to significantly expand our last-mile reach to these students and allow these students the opportunity to fully realize the benefit of one-to-one device initiatives being implemented today in our districts. The ability to reach these students’ home with fiber optic technology would “level the educational playing field” for student who never-before were able to compete with students in more urban and “connected” locales.

Proposed Technology

BRMEMC plans to offer Fiber-to-the-Home & Business (FTTH&B) services to all interested customers. Our offerings will include Internet service, and will also make available new telephone and television services through our partners delivered over the fiber optic lines. Our residential speed offerings begin at 10 Mbps, and move to 20 Mbps, 30 Mbps, 40 Mbps, and 50 Mbps. We do have plans to install technology capable of providing Gigabit service to the customer premise. These service offerings will be priced according to the tiers of service on a monthly fee of $34.95 (10 Mbps), $39.95 (20 Mbps), $42.95 (30 Mbps), $49.95 (40 Mbps), and $59.95 (50 Mbps). Other speeds and services may be made available upon request.

State and/or Local or Tribal Government Participation in and/or Support for Project

As has already been stated, BRMEMC has previously completed other projects funded by various State, Federal and non-profit sources; however, we do not anticipate utilizing any funding from outside sources on this project. We do plan to leverage previous fiber network investments in terms of fiber cable/equipment, and electronic infrastructure that is already in existence, and was paid for using these other funds, to the benefit of the project funded under this EOI. While formal coordination with the Eastern Band of Cherokee Indians has not been conducted at this time, we have been working in close coordination with EBCI’s broadband department in terms of regional service delivery planning. Several remote EBCI properties could be provided services as a result of a project funded as a result of this EOI. Finally, it bears noting that by utilizing BRMEMC’s existing utility infrastructure projects funded under this EOI will have minimal additional environmental, cultural, and/or archaeological impacts by sharing encroachments already established for power line use.

Existing Providers

There are two existing providers that offer DSL service in portions of our proposed project area. The existing provider, the incumbent telco, serving our North Carolina footprint offers speeds of up
to 768k/128k, 1.5M/384k, 3M/768k and 7M/768k, within the technological limits of DSL service (up to 18,000 feet of a CO). The existing provider serving our Georgia territory offers download speeds of up 3M, 6M, 12M, and 24M, again limited by distance (up to 13,000 feet from a CO), but does not publish an upload speed to customers. As a re-seller of the DSL services offered by the local telcos, we have logged multiple complaints about the advertised speeds from these providers not matching the actual speeds delivered. During the defense of our BTOP-funded project in 2010 and 2011, BRMEMC was able to demonstrate that significant variations often exist between what customers purchase and what they actually get from the incumbents. One documented case that was proven was a case where the customer was made eligible for and signed up for 12M service, yet was never able to get more than 175K download speed. While we recognize that speeds can vary by customer location, especially on the higher speed offerings, we do not believe that the majority of the service area is being provided a minimum level of broadband speed as is currently being defined by the FCC, and we propose to remedy this problem by installing a more future-proof network of fiber optic lines that will remain scalable and robust for years to come. We believe that most of the speeds actually available to customers in our region are insufficient for today’s customer needs, and this problem will only become exacerbated as customer broadband adoption continues to increase. Additionally, we plan to show that there are still areas in our service territory where no high speed access is currently available, and for these customers little hope of getting broadband service exists without our efforts defined in this EOI.

**Project Timeline**

Blue Ridge Mountain EMC would be able to begin work within three (3) months of a funding commitment. As was already stated, equipment to install and splice fiber optic cable is already in our possession, and the workforce to install said fiber optic cable is already within our existing workforce. Since we have been in the business since 2006 we have the contacts, vendors, workforce, and ability to begin this project our very quickly. Additionally, since BRMEMC already owns and has constructed utility lines throughout the region, minimal additional environmental impacts will be realized from this project. These facts were evidenced, in large part, in our successful BTOP project. We were the first project funding in the US under the ARRA-BTOP program, and we were the first to successfully complete the project and within the two-year deadline imposed by BTOP and Congress. Construction would be expedited and completed within required timeframes.

**Scalability**

The project scope and amount requested in this total project is sizeable yet this proposal was designed to provide an accurate look at what it might take to provide fiber optic connectivity to every remaining un-connected home within our service territory. Very obviously, this project exceeds the initial set-aside under this program, but we have designed our plans so as to be completely scalable: that is the technology and design of the network can be completed in smaller,
less costly phases providing for future growth and expansion if other resources become available in the future. In other words, if funding for only 25% of a project is made available under this EOI, we would be able to scale back the project and only build the first 25%. Should additional funding be made available under the Connect America fund (or through other resources) thereafter, we would simply continue on with that build until 100% complete.

**Total Utility Investment**

BRMEMC does not plan to invest additional capital in the project; however, we do plan to significantly leverage our existing equipment, electronics, and fiber optic infrastructure to achieve our community enhancement project. Additionally, BRMEMC would contribute the cost of existing pole lines and pole-line attachments, and right-of-way procurement should any new rights-of-way be required.

**One-Time Capital Infrastructure Investment Needed**

$180,000,000.00 *

**Total Project Cost**

$180,000,000.00 *

* (NOTE: Project scope and therefore total project cost is entirely scalable and can be funded in smaller, more manageable phases depending upon funding availability.)

**Conclusion**

Blue Ridge Mountain EMC has the experience necessary to appropriately, reliably, and cost-effectively deliver the most advanced broadband services to a remote and rural portion of the Southern Appalachian region of the US. We have the knowledge and ability to construct and maintain the network for decades to come, we possess the existing equipment, rights-of-way and pole lines to minimize the overall cost of construction. Environmental impacts from the project would be minimized as we would utilize existing utility encroachments whenever possible. Our workforce is skilled in construction of fiber optic networks, and can deliver the project within all expected FCC timeframes. Finally, we are ultimately flexible with regard to available funding. Should the FCC decide to limit all funded project amounts under this proposal, BRMEMC could easily scale down its project accordingly, but if the FCC decided to take a phased approach to funding a larger project over a longer period of time, BRMEMC could deliver a scaled-up and phased project. We look forward to future discussions regarding our capabilities and other project details.