Blue Ridge Mountain EMC Transforms Broadband Have-Nots Into Broadband Haves

The electric cooperative's fiber broadband service attracts second homeowners and telecommuters to communities in the Southeast where broadband was once nonexistent.

By Sean Buckley / *Broadband Communities*

Electric cooperatives have given hope to the rural broadband market, and Blue Ridge Mountain Electric Membership Corporation (BRMEMC), in the broadband industry for more than 17 years, has earned the right to call itself a pioneer in that emerging space.

Several electric co-ops in the Southeast have contacted BRMEMC for advice about how to deploy a broadband network. BRMEMC, founded in 1938, is a member-owned electric cooperative headquartered in Young Harris, Georgia, serving more than 53,000 member-customers. The provider currently offers electric and FTTH broadband services to Fannin, Towns and Union counties in northern Georgia and in Clay and Cherokee counties in western North Carolina.

BRMEMC's broadband journey is far from typical. Unlike other co-ops that installed fiber to satisfy supervisory control and data acquisition requirements for the electric grid, BRMEMC's broadband move was based on a simple principle: supply service in places that have none.

"Our driver was that our members wanted service," says Daniel Frizzell, director of engineering for BRMEMC. "Whereas a lot of co-ops eased into the business by using the fiber for the electric grid, our focus was to provide broadband."

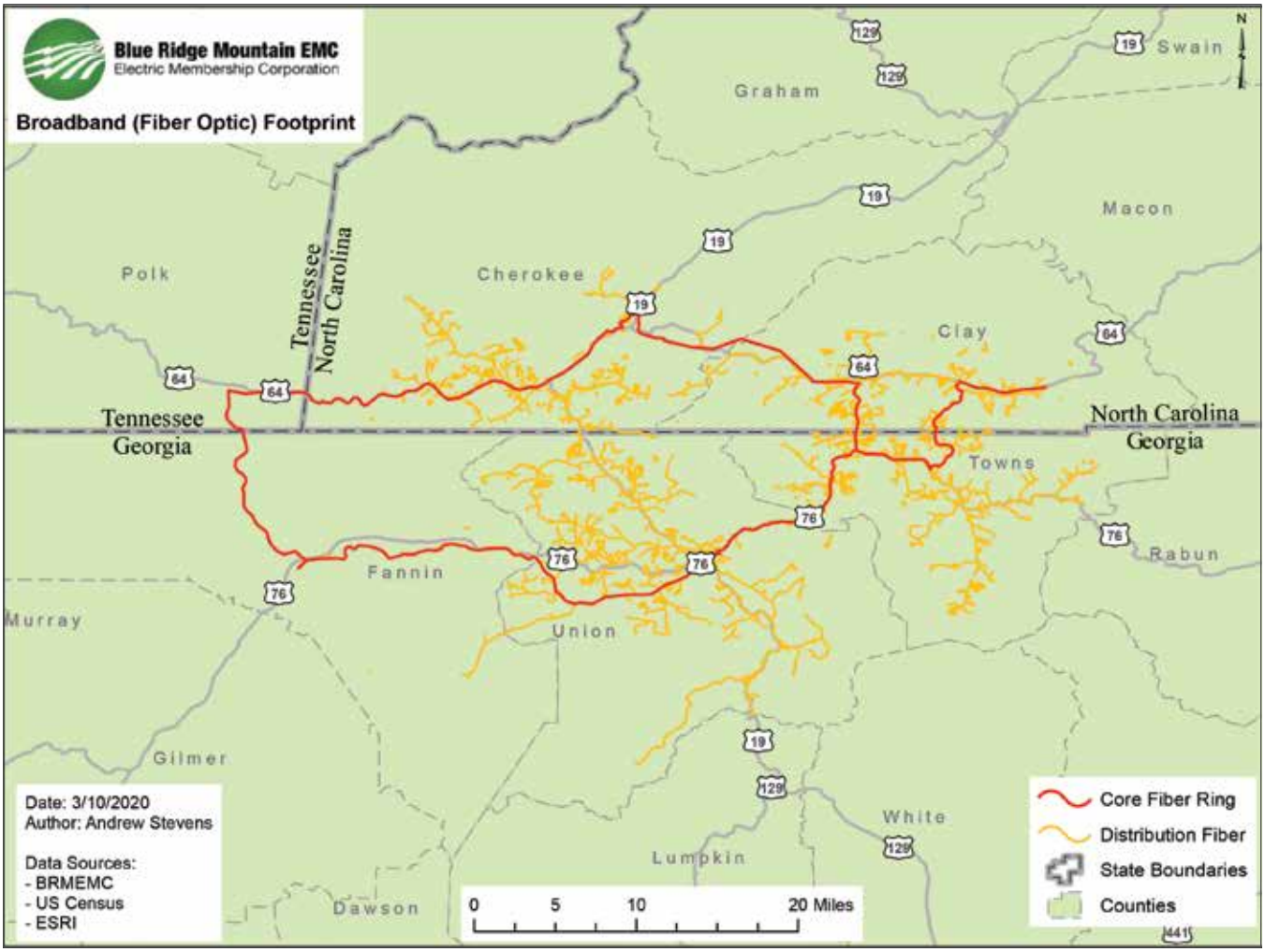
Initially offering residential customers a mixture of DSL and dial-up internet services, BRMEMC has rapidly expanded its FTTH platform.

BRMEMC.com, the operating broadband unit, continues to extend its FTTH service area. Service in Georgia is generally limited to the incorporated areas of Blairsville, Murphy, Hiawassee and Young Harris. Georgia Senate Bill 2, which gives statutory authority to the state's 41 electric cooperatives to provide broadband services, encouraged BRMEMC to expand and upgrade its broadband network.

Like other electric cooperatives that have launched broadband, BRMEMC acknowledges broadband is quite different from the electric utility business, in which for many years it enjoyed a near monopoly.

"It took a long time to get to the point where you start to look at things differently – where you are in a competitive market," Frizzell says. "It takes marketing and understanding some of those things that, as a co-op, we traditionally never had to think about."

He adds that although BRMEMC felt it had better service than traditional telcos, the challenge was to get the word out about its services. "There has been a learning curve to lift our marketing efforts up to a point where we could get recognition and become the first choice."



Blue Ridge Mountain EMC is attracting second-home buyers and telecommuters with FTTH services.

ENHANCING OFFERINGS

As BRMEMC looks for ways to expand and improve its broadband offerings and other value-added services, it achieved several milestones in the past two years.

The service provider began building more than $750,000 worth of new fiber infrastructure in other unserved and underserved portions of its system. It said in a release that this was the first substantial rollout of new infrastructure construction since the early 2010s.

A community center will also be established in a local general store; residents will be able to use terminals and Wi-Fi, free of charge.

BRMEMC obtained $3 million through the U.S. Department of Agriculture's (USDA) Community Connect Grant Program to provide fiber services to a large portion of northern Cherokee County, North Carolina. Specifically, the funds will be used to build out an active Ethernet-based network that will enable BRMEMC (and its affiliates) to offer voice, video and data services to the 865 households and seven businesses in a previously unserved area.

"The technology will allow for increased opportunities to access economic development, health care, educational, and quality-of-life resources that high-quality communications services can bring to communities," the USDA announced in a release about the funding.

COMPETITION IS RESPONDING

BRMEMC's main competitors, Windstream and Frontier, are responding. When the utility started offering service, these providers offered only low-speed DSL. Frizzell noted that as BRMEMC built out the FTTH network, Windstream enhanced its broadband service.

"When we started this whole process, the service [Windstream and Frontier] offered was just bad," he says. "Since entering into competition, Windstream actually has improved service in our territory, but Frontier not so much."

At the same time, Windstream has been upgrading its cable network systems in northern Georgia. In 2016, the telco upgraded its HFC network there to support DOCSIS 3.0, enabling it to offer 100 Mbps speeds to residential and small-business customers.

What's more, Windstream rolled out 1 Gbps FTTH service across a large portion of Northern Georgia. The HFC upgrade and the FTTH buildout efforts were designed to prove to lawmakers that the service provider is investing in being able to offer residents and businesses higher speeds not previously

available. At that time, Rep. Doug Collins, R-Ga., criticized Windstream for unreliable service that affected local businesses and public safety organizations.

But Windstream's HFC and even FTTH efforts aren't stopping BRMEMC from making customer acquisition strides.

"Windstream is starting to push more internet over its cable system, but we've still been able to pull customers from cable and their fiber-to-the-home deployment," Frizzell says.

BRMEMC's network equipment from ADTRAN can support 1 Gbps and beyond, and BRMEMC offers 100 Mbps to consumers. It offers services as low as symmetrical 30 Mbps for $42.95 per month up to 100 Mbps for $99 per month. Meanwhile, it sells 1 to 2 Gbps services to business customers.

"Our highest residential speed offering is 100 Mbps, but if someone wants 1 Gbps, we can give it to them," Frizzell says. "We have several business customers using 1 and 2 Gbps."

"The capability to offer gigabit service is there," he adds, "but we're just trying to navigate the market and what customers are asking for."

PULLING IN TELECOMMUTERS

With much of its market mainly residential and rural, BRMEMC's territory is not a large draw for businesses. In fact, businesses make up only a small part of the communities the utility serves. BRMEMC's headquarter city, Young Harris, had a population of 899, and according to the 2010 census, Blairsville had a population of 652. "We don't have any railroad lines, and we lack the necessary infrastructure that pulls businesses into our area," Frizzell says.

The company's location, however, has become a draw for telecommuters with a desire to live outside major metro areas. For example, BRMEMC's service areas are located two hours from Atlanta and Chattanooga, Tennessee.

"We're starting to pull a lot of people into our area who don't want to live in downtown Atlanta but want to be in the mountains of northern Georgia," Frizzell says. "They will work from home a few days and then be in the office a couple of days."

The service provider will help real estate agents identify the homes in its serving area that have FTTH service.

BRMEMC is not alone. Ting, an emerging competitive provider, has been educating local real estate agents in Charlottesville, Virginia, on how to position homes with FTTH services. It developed a program to work with local realtors in the towns they currently serve and plan to serve on the value of fiber-based internet.

"We'll have real estate agents come in and hand us a list of addresses," Frizzell says. "We'll go through those addresses and say, 'these are the locations where we have fiber available.' They will mark the other ones off because it's that important to new residents."

FOCUSING TARGETS

BRMEMC is hot on the FTTH expansion trail. Over the past year, the service provider has been building out to new parts of its electric territories with plans to extend service into four new communities this year.

These expansions will take place in the first half of 2020, with more areas to be announced in the coming months.

When it decides to expand broadband service to a new area, BRMEMC considers several factors. It looks at areas that have high electric meter saturation. By targeting areas with more meters per square mile, BRMEMC ensures it can expand the network to the most members possible within the allotted fiscal year budget.

The expansions, Frizzell says, are "based on some ROI objectives and making some assumptions about the percentage of our customers willing to take the service."

Communities in which BRMEMC can't make an immediate investment case often rally together to lobby the provider to bring service to them.

"Some of those communities take it upon themselves

ELECTRIC CO-OPS TAKE ADVANTAGE OF FCC RURAL FUNDING

Electric cooperatives represent a new growth engine in the overall broadband arena. A recent RVA LLC report revealed that about 12 percent of U.S. rural electric co-ops have announced fiber builds.

This group is also making a big mark on the Federal Communications Commission's (FCC's) rural funding efforts. During the 2018 CAF-II auction, 32 electric co-ops won 35 bids, for example.

Electric cooperatives will likely play a big role in the FCC's upcoming Rural Digital Opportunity Fund (RDOF). In February, the commission considered a Report and Order that would adopt a two-phase reverse auction framework for the RDOF, committing $20.4 billion in high-cost universal service support to bring high-speed broadband service to millions of unserved Americans.

Electric cooperatives such as BRMEMC, as well as the National Rural Electric Cooperative Association, a trade association for electric co-ops, have cited support for the FCC's RDOF program because it will favor broadband projects that focus on providing high-speed, low-latency services.

Jim Matheson, CEO of the National Rural Electric Cooperative Association, said in a release that though more than "100 electric cooperatives have stepped up to deploy broadband and connect their communities to the modern economy," the problem is for "many co-ops, broadband projects are simply not feasible without grant funds."

to drive the demand for that service to the point to where it makes it feasible for us to build it," Frizzell says. "It incentivizes those communities that really want the service, and we try to push it into those places first."

EYEING HOME NETWORKING, STREAMING VIDEO

As BRMEMC expands its service presence, "one of our next steps is to go into the home and start doing managed Wi-Fi," Frizzell says. "We started evaluating a few of the products and solutions that are available, and that's probably the direction we're headed in the future."

BRMEMC's pending move to provide home-networking and Wi-Fi services is timely. Parks Associates revealed in its 360 View: CE Adoption & Trends report that 22 percent of U.S. broadband households have a Wi-Fi network extender, and 11 percent have a Wi-Fi mesh networking product.

But the research firm notes that a little more than 30 percent of computing and entertainment device owners report experiencing loss of wireless connectivity, with home network routers identified as the most common source of the problems. Therefore, Wi-Fi extender and mesh network products are well-positioned to target this issue.

Though internet is the main service, the provider offers voice service via a partnership with a local telco. It also has a traditional linear video service via a partner, but it plans to leave the video business behind.

The provider is not alone. Traditional telcos and other alternative providers, such as AT&T, Cincinnati Bell, Consolidated and Windstream, have struggled to make a profitable video business for two reasons: rising content prices and changing consumer viewing habits.

With a robust internet offering in place, BRMEMC is confident it can help its customers take advantage of emerging over-the-top video offerings, such as Amazon Prime and YouTube TV.

According to eMarketer, connected TV viewership is increasing faster than previously expected, so the research firm adjusted its 2019 U.S. connected TV forecast from 190 million monthly viewers to 195.1 million. At the same time, it estimates that the number of U.S. pay-TV households will decline from 86.5 million to 72.7 million between 2019 and 2023.

"We'll be pushing people toward over-the-top services because we have good internet," Frizzell says. "Those services are becoming more widely accepted and better, with more choices and more offerings." ❖

Sean Buckley is the associate editor of ***Broadband Communities****. He can be reached at sean@bbcmag.com.*