

Applicant Information

Company Name	French Broad Electric Membership Corp.
Address	Nathan Huff 3043 NC Hwy 213 Marshall, NC 28753
Website	https://www.frenchbroademc.com/
Federal Tax ID	[REDACTED]
DUNS #	053012860
System Award Management (SAM.Gov) ID	36YH6

Authorized Representative		Authorized Representative (Alternative)	
Full Name	Nathan Huff	Full Name	Jeff Loven
Contact Title	Broadband Manager	Contact Title	CEO and General Manager
Phone Number	828-649-2051	Phone Number	828-649-2051
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Grant Administrator & Company Name(if applicable):
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Full Name	
Contact Title	
Telephone	
E-Mail	
Website	
Federal Tax ID	
Address	

Project Information

Project Title	French Broad Fiber Buncombe County 1		
Project Cost	\$2,371,397.05		
County	Buncombe	Tier #	002
Estimated # of Households with improved access			516
Estimated # of businesses with improved access			11
Base Speed - Minimum Download/Upload			Greater than 100:100 Mbps

Project Description (provide a brief summary of the project

This project will build approximately 78 miles of fiber-to-the-home broadband infrastructure to unserved areas in Buncombe County. Broadband speeds of 1,000 / 1,000 Mbps as well as VoIP service will be offered to EVERY home and business in the proposed service area. There are approximately 516 households and 11 businesses in the project area.

Has the applicant entered into a partnership for this project as defined in S.L. 2019-230?

Yes

Checklist Details

1) Statement of Qualifications (Please provide a detailed description of qualifications and experience with the deployment of broadband):

French Broad Electric Membership Corporation has been installing fiber optic cable since 1999. For the past 23 years, we have expanded our fiber optic infrastructure to over 1,600 miles in the rural, mountainous terrain of Western North Carolina and Eastern Tennessee. In the beginning, we connected all our substations, communication towers, electric devices, and office buildings together with fiber. We also connected all the schools in our five-county service territory with fiber optic cable. As the network continued to grow, we offered commercial internet service to several of our large business customers.

French Broad EMC is experienced in deploying and managing a fiber-to-the-home network. In late 2016, our Board of Directors approved a fiber-to-the-home pilot project which we constructed in early 2017. The project was a great success and received praise from the public which motivated the Board to approve expansion of the service. We promptly expanded to include 200 members by the end of 2017. In 2018, we continued to expand the service to 750 subscribers and introduced a VoIP telephone service. Seeing the positive impact our internet service had on the community, we began pursuing grants to expedite getting fiber to our members. We have been awarded five grants totaling just over 10 Million dollars to build fiber to the home in underserved areas of Buncombe and Madison Counties, North Carolina as well as Cocke and Unicoi Counties, Tennessee. This funding allowed us to connect underserved areas and grow to over 1,600 subscribers in 2019. All grants have been managed efficiently, with no issues. While the pandemic was difficult for many businesses, we continued to expand our fiber network, adding 1,800 subscribers each year during 2020 and 2021. COVID also presented many supply chain issues, but we quickly adapted and were able to maintain enough inventory to add, on average, 150 subscribers per month. We now have over 5,600 subscribers and this year we continue to average 150 subscribers per month in our new service areas. Over 1,600 (30%) of our broadband subscribers now have our VoIP service and love the fact that we are both saving them money and providing a better service. We average an 75% take rate in our oldest service areas and expect to

Checklist Details

see at least 60-70% in our newer service areas and grant areas.

French Broad EMC has experienced personnel required to provide a reliable fiber-to-the-home network. We employ and contract three mainline construction crews, five splicing technicians and three home installation crews. Mainline crews construct ADSS lines on our existing electric system infrastructure. Splicing technicians splice and test all cables, cabinets and service terminals. Home install technicians work in four-man crews to run the drop cable over to the homes or businesses and install the indoor optical network terminal (ONT) and WiFi router. French Broad EMC has three full-time engineers that design, test, and layout new construction. We also have a marketing employee to ensure our service areas are aware of our broadband and VoIP services. Our networking team consists of two IT professionals with nationally recognized certifications in network management. We've cross trained our office employees and created a call center, which allows us to perform all troubleshooting and technical customer support in house. French Broad EMC is also very experienced in managing grant resources. Our management team and certified accountants have successfully administered a variety of state, regional and federal grants. We are familiar with the funding process, and efficiently use grant resources to quickly provide underserved areas with fiber access.

French Broad EMC has invested in the best equipment required to maintain and deploy a fiber-to-the-home network. We have splicing vehicles and a splicing trailer, rugged enough to tackle the rough terrain of the Appalachian mountains. We have fiber splicing and testing equipment, a testing lab, maintain over one million dollars in fiber related inventory, and seven service trucks. In addition, we also have access to bucket trucks, line trucks, and other pieces of equipment at our disposal from our electric service operations. Our crews also service the system 24/7, with on-call teams standing by to ensure minimal service disruption in emergency situations. Our networking equipment has been upgraded to provide true redundancy for our service. We have two dedicated 40Gb trunk lines to our upstream internet provider in Asheville, NC. This allows us to truly provide gigabit services to our customers without over-provisioning areas and experiencing a degradation of speed during peak usage hours. We also have a 10 Gb service to an upstream provider in Charlotte in case of link failure to Asheville. Our Optical Line Terminals (OLT) in the field, which provide the last mile connectivity, have multiple paths back to our office for redundancy. Battery backups are present in all our networking facilities and provide a minimum of 5 hours of uninterrupted service in the event of a power failure.

2) Assessment of the current level of broadband access in the proposed deployment area – supporting data may be uploaded if applicable:

Data was examined from the FCC, NCDIT Survey, NC OneMap, and NTIA / Broadband USA to identify unserved areas. The proposed service area was drawn to specifically include locations that do not have access to reliable 25/3 Mbps broadband as addressed in the United States Treasury FAQ 6.11. Careful consideration was also given in excluding areas deemed as ineligible for GREAT such as: "FCC RDOF Auction 904 Phase 1 Results" and "Federal Broadband Grant Award Areas Combined". Datasets indicating the lack of reliable 25/3 Mbps broadband service from NC OneMap include "FCC Less Than 25mb/s Download and 3mb/s Upload", "Census Block with NC Broadband Surveys reporting Less Than 25/3 Service (Indicated Fastest Available)". Datasets indicating the lack of reliable 25/3 Mbps broadband service from NTIA / Broadband USA include "Speed Tests - Ookla Median Speeds Fixed Broadband Below 25/3 Mbps (Census Tract Level)", "American Community Survey - 25% or More of Households Report No Internet Access (Census Tract Level)" and "FCC Form 477 - No Provider Reports Consumer Fixed Broadband Services at 25/5 Mbps (Census Block Level)". Please see the attached map with NCDIT Survey and NC OneMap layers overlaid which demonstrates the lack of reliable 25/3 Mbps broadband access in the proposed service area. Also attached is a map with NTIA / Broadband USA layers overlaid that reiterates the lack of reliable 25/3 Mbps broadband access in the proposed service area.

French Broad EMC uses ESRI ArcMap software as our primary mapping software. Using ArcMaps geoprocessing tools we are able to gain valuable insight about the need for reliable broadband access in the project's proposed service area. For example, at the census block level we can calculate there are exactly 38 NC Broadband Survey Responses reporting less than 25/3 Mbps Service. We can also calculate there are a total of 276 NC Addresses that collectively fall within these datasets indicating a lack of reliable 25/3 Mbps broadband access. These numbers confirm the staggering lack of reliable 25/3 Mbps broadband access in the project area.

In addition to these maps, French Broad EMC also examined internal datasets when determining the boundaries of the proposed service area. Two of these internal datasets are pole attachments and electric accounts for powering broadband amplifiers. Pole attachments and electric accounts are requested from time to time by incumbent service providers as they slowly expand their legacy networks. This data combined with the data from the FCC, NCDIT, NC OneMap and NTIA / Broadband USA was all taken into consideration when identifying locations that are considered unserved by a reliable 25/3 Mbps broadband service. Careful consideration was given to exclude particular areas that we know have sufficient access to broadband.

Economic Development in the project area suffers from a lack of widespread high-speed broadband access. The businesses and industry in these areas work off of an oversold and underperforming network option (if they have any option at all). Buncombe County needs to be creative in looking for new ways to attract and retain workforce talent. Improved broadband capabilities for businesses and residents will allow students to take online classes, and people to work from home. Improved broadband is a great opportunity for economic development that allows local residents to stay in these communities.

Without assistance from the government and programs many of these rural areas will continue to be unserved or underserved. Through this project French Broad EMC will leverage additional economic development activities using broadband and continue to build out our network using existing infrastructure. Schools in surrounding areas are already covered with fiber access, but students in the region do not have reliable connectivity access. As education continues to head toward the elimination of textbooks and increased technology the students of this area fall behind the learning curve and in cycles of poverty. Students are not able to work on projects that require access at home. The ability for online classes and training for adults to continue their education holds the population back from improving their quality of life.

This project will provide broadband capabilities of 1,000/1,000 Mbps to 11 businesses and 516 households with home based business and educational needs. By providing broadband services in this area this portion of the county will be able to grow and become competitive in a rapidly changing technology driven economy. With better broadband capabilities in the area more people with telecommuting lifestyles will be able to start businesses, work from this area, and compete in a technology driven economy.

Fiber is the most future proof technology on the market. The unique mountain geography of the county requires creative solutions and many fixed wireless options have very limited availability options and reliability. French Broad EMC already has access to the poles and ROW making their ability to implement easier than a private company and their commitment to rural utility service makes them a reliable entity to serve these customers. The use of existing ROW also means that there is no environmental impact for the project, as all the cable follows existing power lines. The only ground that is disturbed is in the "last

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mile" portion which involves burying the fiber from the closest power pole to the residence, which is on private land. Many services will be run aerially the

3) Description of Proposed Services, Advertised Speeds, and Pricing Structure for proposed broadband recipients in the eligible project area:

We offer two broadband packages; 25/25 Mbps and 1,000/1,000 Mbps, to ALL residential and commercial subscribers. Residential rates are \$49.95 for 25/25 Mbps and \$74.95 for 1,000/1,000 Mbps. Commercial rates are \$64.95 for 25/25 Mbps and \$89.95 for 1,000/1,000 Mbps. Depending on the subscription package, each ONT is provisioned with 27 Mbps or 1,100 Mbps to ensure customers receive at or above the advertised speed. Voice over Internet Protocol (VoIP) services are offered for \$15.00/month/number (residential) and \$25.00/month/number (commercial) plus taxes and fees. Taxes and fees bring the average total to approximately \$20/month per residential number and \$32/month per commercial number. Customers can lease wireless MESH network extenders for \$5.00/month each as well as static IP addresses for \$5.00/month each for advanced networking needs. French Broad EMC covers the cost of the installation and all equipment necessary for standard service. Our service offerings and pricing structure is posted on our website at <https://www.frenchbroademc.com/index.php/fiber-page/plans-pricing/>

4) Description of Adoption Plan:

Take Rates: We are experiencing a 75% take rate on average in existing areas. Most often, we see an almost immediate 40% take rate and then additional subscribers fall in later. These late adopters tend to feel more comfortable subscribing to a new service once their friends or neighbors or once they've spoken with an employee directly.

Outreach: French Broad EMC uses physical letters as our initial outreach method to notify people about fiber service availability in newly covered areas. These letters have a high rate of return and give members the opportunity to sign up for the service by completing the attached paperwork, to request more info via a phone call, or let us know the reason for any hesitation or lack of interest. Their responses are recorded in our database and subsequent outreach is adjusted accordingly. We also utilize emails and phone calls to educate members about the service. Since we have contact and account information for all our members, we're able to successfully tailor the outreach to location, business/residential status, and other factors to maximize efficacy.

Visibility: In a rural community like ours, our physical presence in the area and word of mouth are generally most impactful. We deploy signs in the appropriate service areas to let everyone know fiber service is available. Honestly, because the areas we move into are so badly underserved, and since we've been building our fiber to the home network in areas of our membership for three years now, when people see the trucks rolling up the road they wave us down to see if we are building fiber to their neighborhood. This visibility and word of mouth in the community is our best way to let people know they are about to receive service.

Available Assets: On our website we have assets to answer common questions and educate members about service offerings. Through the site members can message FBEMC employees, request service or sign service documents digitally. Our coverage area map is available online and has over 50,000 views. It is accurate within a few feet and indicates which areas have service available and which are under construction. We also spend a great deal of time educating members one on one over the phone, so our fiber department office staff are a great educational asset. Our fiber staff address any concerns, answer final questions, and schedule installations over the phone for each new subscriber.

By checking the appropriate box, you will upload the following documents:

5) Description of Project Area, Identification of locations to be served, relevant maps and mapping files:	<input checked="" type="checkbox"/>
6) If submitting other data sources, including field data, to identify unserved locations (households and businesses) outside of the fully unserved census blocks provided on the NC One Map, please provide a narrative describing your methodology for determining the proposed funding area is unserved and eligible for funding in this round.	<input checked="" type="checkbox"/>
7) Excel Spreadsheet (NO PDF) that itemizes the eligible activities and cost estimates. Please provide an explanation of how you estimated the costs:	<input checked="" type="checkbox"/>
8) Please provide your methodology or explanation of how you calculated cost per location (Households/Businesses):	<input checked="" type="checkbox"/>
9) Proof of Financial Solvency	<input checked="" type="checkbox"/>
10) Technical Report	<input checked="" type="checkbox"/>
11) Evidence of Support for the Project (i.e. Letter of Support)	<input checked="" type="checkbox"/>
12) Evidence or proof a partnership based on the definition in the guidance document and the authorizing legislation	<input checked="" type="checkbox"/>

SCORING

The GREAT Program is a competitive grant program. Applications shall be scored based upon a system that awards a single point for criteria considered to be the minimum level for the provision of broadband service, with additional points awarded to criteria that exceed minimum levels. Applications receiving the highest score shall receive priority status for the awarding of grants.

The tool below is being provided to Applicants so that they may estimate their score to determine estimated match requirements. All final and official scores will be determined by the BIO during the review process.

	Reviewer	Score
a1) Partnership - One point shall be given for a proposed partnership that will make available existing infrastructure that has been installed for the partner's enterprise, non-consumer broadband purposes, or any other property, buildings, or structures owned by the partner, for a proposed project.	Choose One	0

NC DIT GREAT Program

Growing Rural Economies with Access to Technology Program

a2) Partnership - A county or nonprofit entity that proposes to provide a financial match shall be given one point. Notwithstanding Article 8 of Chapter 143 of the General Statutes, or any provision of law to the contrary, a county may use unrestricted general funds or federal American Rescue Plan Act (P.L. 117 1) funds allocated to it for the purpose of improving broadband infrastructure for a financial match.	Choose One	0
a3) Partnership - An applicant shall receive two additional points for a proposed partnership where the county's financial match is comprised entirely from federal American Rescue Plan Act (P.L. 117 2) funds intended for broadband infrastructure.	Choose One	0
b) Unserved Households(HH) – Using most recent FCC Data or other information or supporting data, estimated number of unserved households within the eligible county (TIER ONE)	500 or Less	1
c) Unserved Households (HH) to be Served – Using most recent FCC Data or other information supporting data, the percentage of the total unserved households with the eligible project area	Less than 15%	1
d) Unserved Business – Using most recent FCC Data or other information by NC BIO, provide broadband service to unserved business within eligible county (TIER ONE) and project area (Documentation)	1 and 4	1
e1) Piedmont or Coastal Plain Region	Choose One	
e2) Mountain Region	Choose One	
f) Base Speed - Min Download : Upload	100:20 Mbps to 100:100 Mbps	1.00
Total Score		3
g) Community Broadband Plan defined by NCBIO	No	0
h1) For counties that received an aggregate of eight million dollars (\$8,000,000) or more directly from the federal government, the following points shall be added to the application score:	Choose One	
h2) For counties that (i) received less than an aggregate of eight million dollars (\$8,000,000) directly from the federal government from the American Rescue Plan Act (P.L. 117 2) and (ii) are providing a portion of a project's matching funds using the entirety of the federal funds the county received, together with any other unrestricted general fund monies, if needed, the following points shall be added to the application score:	Choose One	
i1) Are the matching funds partially comprised of ARPA funds a county received directly from US Treasury?	Choose One	
i2) Are the matching funds entirely comprised of ARPA funds a county received directly from US Treasury?	Choose One	
Final Score		3

List all expenses related to the project, the amount of each expense, and the corresponding funding source(s) in the table below. The table should include all of the eligible costs such as: installation, acquiring or updating easements, equipment, fiber, construction, backhaul infrastructure for the end user, and testing costs. Ineligible costs should not be included in the project budget. The table should clearly show all planned expenditures and all funding sources for the project.

Reviewer Score:	3	Matching Requirement (%):	50%
Based on your scoring matrix, Your minimum match requirements:		\$1,185,698.52	
Total Project Cost:	\$2,371,397.05	Grant Amount Requested (\$):	\$0

Please indicate which documents were submitted with your application, by checking the appropriate box. ~ Reference guidelines booklet for document details ~	
1) Excel Spreadsheet (NO PDF) that itemizes the eligible activities and cost estimates. Please provide an explanation of how you estimated the costs	<input type="checkbox"/>
2) What is the total cost per location for the project? Please provide your methodology or explanation of how you calculated cost per location (Households/Businesses)	<input type="checkbox"/>
3) Proof of Financial Solvency	<input type="checkbox"/>

Project Expense	GREAT Funds	Matching Funds	Total
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NC DIT GREAT Program

Growing Rural Economies with Access to Technology Program

Easements (one-time fees)			0
Materials (fiber, equipment, etc.)			0
Construction/Installation			0
Testing			0
Engineering			0
Lease/Collocation Fees (one-time fees)			0
Other 1			0
Other 2			0
Other 3			0
Total Eligible Project Cost			0

Company Certifications

1	Overdue Tax Debts	Does the Company or the Related Member(s) currently have any overdue tax debts with any City, Town or County in, or with the State of North Carolina?	No
2	Occupational Safety and Health Act Violations	Does the Company, or the Related Member(s) have any citation under the Occupational Safety and Health Act that have become a final order within the past three years for willful serious violations or for failing to abate serious violations?	No
3	Loan Defaults	Is the Company, or the Related Member(s) currently in default on any loan or grant previously made by the State of North Carolina?	No
4	Incentive History	Has the Company, or Related Member(s) ever defaulted on an economic development grant or incentive or been sued by a grantor with respect to an economic development grant or incentive from the State of North Carolina?	No
5	Creditor Losses, Litigation, Government Investigations	Has any member of management or any principal of the Company, or the Related Member(s) been involved in a financial reorganization, a bankruptcy, or other situation that led to losses by creditors or bond buyers, investor lawsuits, or government investigation alleging fraud or impropriety?	No
6	Pending or Threatened Litigation	Is the Company, or Related Member(s) subject to any claim, suit, action, proceeding, or government investigation that is pending or threatened that, individually or in the aggregate, would reasonably be expected to have a material adverse effect on the proposed grantee's finances or operations or the ability to conduct the proposed project, or that would reasonably be expected to impact the NC DIT's decision to award a grant?	No

Internet Service Provider (ISP) Certification and Attestation

The attached statements and exhibits are hereby made part of this application, and the undersigned representative of the applicant certifies that the information in this application and the attached statements and exhibits are true, correct, and complete to the best of the signatory's knowledge and belief. The signatory further certifies:

1. as Authorized Representative, the signatory has been authorized to file this application by formal action of the governing body;
2. agrees that if a grant is awarded, the applicant will provide proper and timely submittal of all documentation requested by the Grantor Agency;
3. that the applicant has substantially complied with or will comply with all federal, state, and local laws, rules, regulations, and ordinances as applicable to this project;
4. that the applicant certifies the financial and organizational strength regarding the ability to successfully meet the terms of the grant requirements and the ability to meet the potential for repayment of grant funds; and
5. attests that the proposed project area is eligible.

Authorized Representative

Name:	Nathan Huff	Title:	Broadband Manager	Date:	04/28/2022
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