Southside Planning District Commission

Regional Fiber Broadband Project Phase 2

Application ID: 95708042022104622

Application Status: Pending

Program Name: Virginia Telecommunication Initiative 2023 - Application

Organization Name: Southside Planning District Commission

Organization Address: 200 South Mecklenburg Avenue

South Hill, VA 23970

Profile Manager Name: Stephanie Creedle

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Project Name: Regional Fiber Broadband Project Phase 2

Project Contact Name: Deborah Gosney
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Project Location: 200 S Mecklenburg Avenue

South Hill, VA 23970-2620

Project Service Area: Brunswick County, Charlotte County, Greensville County, Halifax County,

Mecklenburg County

Total Requested Amount: \$29,267,614.00 **Required Annual Audit Status:** Accepted

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Budget Information:

Administration Construction Other: Engineering	DHCD Request	Other Funding	Total		
Telecommunications	\$29,267,614.00	\$32,789,967.00	\$62,057,581.00		
Administration	\$200,000.00	\$0.00	\$200,000.00		
Construction	\$29,067,614.00	\$26,240,001.00	\$55,307,615.00		
Other: Engineering	\$0.00	\$6,549,966.00	\$6,549,966.00		
Total:	\$29,267,614.00	\$32,789,967.00	\$62,057,581.00		

Budget Narrative:

Additionally, EMPOWER Broadband was awarded \$5,053915 in Federal funds received as part of the RDOF auction for Brunswick, Halifax, Greensville and Mecklenburg counties, that will be paid out over the next 10 years to support the buildout as revenues and subscribers grow to become self-sustaining. The RDOF blocks awarded to EMPOWER are strategically located in areas adjacent to its foundational fiber backbone. \$3,722,352 of those funds will be used as additional leverage for the project and were excluded from match expenses and support costs (see Attachment 13).

Questions and Responses:

1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

Answer:

This project is a regional initiative being pursued jointly by the Southside Planning District Commission (PDC), Mecklenburg Electric Cooperative (MEC)/EMPOWER Broadband (EMPOWER), the Counties of Brunswick, Halifax, Mecklenburg, Charlotte, and Greensville in partnership with Dominion Energy, Mid-Atlantic Broadband, and Southside Electric Cooperative. EMPOWER Broadband is the wholly owned subsidiary of MEC, a member-owned utility that has been proudly and successfully serving its members in Southside Virginia for over 80 years. In August 2021, the PDC, MEC/EMPOWER, the Participating Counties, and Dominion Energy, entered into agreements to develop a comprehensive regional strategy to achieve universal fiber to the premise coverage. Collectively, we submit this application to support a project that was developed as part of a regional planning process and will further expand coverage from the 2022 VATI award received, adding areas that lack the current broadband speeds as defined by the DHCD.

The project area comprises five counties: Halifax, Mecklenburg, Greensville, Charlotte and Brunswick Counties. The proposal would result in expanding universal coverage, as defined by the DHCD grant criteria (any area that cannot receive internet speeds greater than 100/20 Mbps), for those in the project area who are currently unserved or underserved. This fiber expansion project will utilize the foundational fiber backbone deployed on MEC's electric infrastructure, and where needed, utilize the facilities of Dominion Energy, Southside Electric Cooperative, and Mid-Atlantic Broadband to expand broadband coverage outside of MEC's territory. VATI funds will be utilized to expand the backbone's reach and increase service availability to those that currently have no access, or limited access, to true broadband internet.

The project areas will maximize the advantage of being adjacent to MEC's Substation Fiber Backbone that has been constructed with matching funds through a 2018 Virginia Tobacco Region Revitalization Commission (TRRC) Grant and is part of a larger nine (9) county joint project to provide fiber-to-the-premises. Additionally, this route passes many rural residents, businesses and community anchor institutions and will provide broadband opportunities to 8,828 locations passed in Halifax, Mecklenburg, Greensville, and the southern portions of both Charlotte and Brunswick Counties.

All unserved and underserved locations within these areas were mapped, and MEC/EMPOWER, with the assistance of

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engineering consultants, has undertaken the design process to develop a last-mile, fiber-to-the-premises network that will extend service to all unserved and underserved locations. The principal engineering and design process for the entire project is complete, and the components of that work are included with this application.

These areas have also been selected because current internet services across the region are far too typical of those found in rural areas, they are at best insufficient, and at worst non-existent. These inadequate options include wireless, cellular, wired access via major commercial carriers, satellite, or DSL. This rural region increasingly faces significant communication challenges due to slow, sporadic, and limited broadband services. The COVID-19 pandemic continues to emphasize the need for reliable internet service in Southside Virginia, including expanded rural broadband capacity to facilitate remote learning, telemedicine, and telework.

This critical infrastructure is a high priority of each locality, the PDC, and MEC/EMPOWER, for the betterment of their residents and businesses ... affording the much-needed opportunities regarding education, the receipt of reasonable and necessary services, and the ability to work in a healthy and safe environment. This expansion of the Universal Broadband Coverage Project will disintegrate the digital divide in the project area by providing world class fiber infrastructure that allows residents to work from home, participate in virtual classrooms, access remote healthcare, and will provide economic development opportunities for the region. This Project will improve the region's infrastructure and sustain communities, enhance local opportunities, and support local business and industry growth.

The Southside Planning District is rural and sparsely populated with just over 81,000 total residents. It has suffered a 6.07% decline in population since 2010 as society gravitates towards areas with modern amenities, such as the internet. Three quarters of District residents live outside of incorporated town limits, which offer some internet services, making the expansion of broadband infrastructure into the rural communities' imperative to its lifeline. The District has a 45% minority population and reported a five-year average median household income of \$43,228 from 2015 through 2019. During this time, the Virginia median household income was \$74,222 while the national average was \$62,843. The per capita income average for the Region was \$23,900, with an 18.4% poverty rate, which is nearly double Virginia's average poverty rate of 9.9%.

Ten small localities in southern Virginia, which includes Greensville County, comprise the Crater Economic Development District, home to 186,938 people according to the 2020 US Census. Population growth is stagnant with an increase shy of 7,000 since 2010. A lack of investment in modernization of infrastructure and services like broadband internet accompanies this lack of growth. Unemployment rates in these ten localities range from 4.1% - also the rate for the Commonwealth as a whole - to 10.3%. Per capita income in the Crater Economic Development District was \$39,684, nearly \$20,000 less than Virginia's per capita income in 2019 according to the US Bureau of Economic Analysis.

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2. List existing providers in the proposed project area and the speeds offered. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

The Counties and their residents were substantially engaged in the Center for Innovative Technology (CIT) broadband surveys; the results are documented in the Virginia Broadband Availability Map. This map provided the existing providers for each census block in the proposed project areas. Data was also collected from the Federal Communications Commission's (FCC) "Fixed Broadband Deployment" as an additional source to determine the current providers in the project areas.

County officials have also discussed this expansion project with existing providers and requested updates on previous and potential upgrade areas; to date this information has not been provided. As is widely known, most of these providers are not forthcoming with regards to their service areas or services offered.

For the proposed projects included in this application, below is a breakdown of availability for each county, according to the Virginia DHCD and Virginia Tech Commonwealth Connection website:

Southern Brunswick: There are eight internet service providers within the county, including EMPOWER Broadband. When looking at each census block for the proposed project areas, and by speaking directly to MEC members and county officials, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage map documents the need in this area and reinforces the statements from members.

Halifax: There are ten internet service providers throughout portions of Halifax County, including EMPOWER Broadband. When reviewing the census blocks in the proposed project areas, and by speaking directly to MEC members and county officials, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage map documents the need in this area and reinforces the statements from members.

Mecklenburg: There are ten internet service providers throughout Mecklenburg County, including EMPOWER Broadband. When looking at each census block for the proposed project areas, and by speaking directly to MEC members and county officials, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage map documents the need in this area and reinforces the statements from members.

Charlotte (south of Highway 360). There are seven listed internet providers throughout portions of Charlotte County, including EMPOWER Broadband. When looking at each census block for the proposed project areas, and by speaking directly to MEC members and county officials, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage map documents the need in this area and reinforces the statements from members.

Greensville: There are only five internet service providers in Greensville County, including EMPOWER Broadband, none of which offer 100/20 Mbps in the rural areas defined in this proposed project area. When reviewing the census blocks in the proposed project areas, and by speaking directly to MEC members and county officials, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage map documents the need in this area and reinforces the statements from members.

Source: https://commonwealth-connection.com/

https://broadbandmap.fcc.gov/#/

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3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, Community Connect, and Rural Digital Opportunity Funds (RDOF). If there have been federal funds awarded near the project area(s), provide a map showing these areas, verifying the proposed project area does not conflict with these areas. Label Map: Attachment 2 – Documentation on Federal Funding Area.

Answer:

Federal funding has not been provided to any of the proposed project areas under any of the following programs: ACAM and Community Connect. According to the Universal Service Administration's Connect America Fund Broadband Map, CenturyLink, RiverStreet, and MEC/EMPOWER were awarded CAF-II funding for sections of the proposed project area. CenturyLink accepted funding through CAF-II, Phase II, in August of 2015, and the subsequent six-year deployment period has concluded. Additionally, they informed the FCC on January 15, 2020, that they did not anticipate meeting required support milestones in every area... including parts of Virginia. Further, the requirements of this FCC program required broadband service at a lower tiered 10Mbps/1Mbps. In 2018, MEC/EMPOWER and RiverStreet received auction awards with similar speed requirements; VATI regulations have now allowed all CAF-II areas within the five-county application to be included.

Source: https://data.usac.org/publicreports/caf-map/

RDOF blocks are included in the project area that were awarded to RiverStreet, MEC/EMPOWER, SpaceX and CenturyLink. Since the map below dated December 2020, RiverStreet Networks has forfeited all RDOF blocks in Halifax, Mecklenburg, and southern Charlotte Counties.

Source: https://www.fcc.gov/reports-research/maps/rdof-phase-i-dec-2020/

Federal funding in the form of a ReConnect grant was awarded to MEC/EMPOWER for Brunswick and Halifax Counties for areas that are excluded from this application.

Source: https://ruraldevelopment.maps.arcgis.com/apps/webappviewer/index.html

Note: This map shows both Reconnect grants and loans and the only grant award for all three counties belongs to MEC.

This project also includes passings that are adjacent and partially or wholly located within Connect America Fund (CAFII) blocks won by an inactive provider. Although several years into the CAFII project, no construction efforts have been initiated to bring broadband service to residents in these impacted areas. After conversations with several of the county administrators and leaders for these counties impacted, it was discovered that numerous attempts to converse and create strategic plans for these areas has been met with little to no response. This lack of communication demonstrates to county leadership and citizens within these areas a genuine disinterest and unwillingness to provide these services.

See Attachment 2-Documentation on Federal Funding Area

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4. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds below 100/20 Mbps and with less than 25% service overlap within the project area for wireless projects and 20% for wireline projects. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 – Documentation Unserved Area VATI Criteria.

Answer:

Data was gathered by MEC/EMPOWER's engineering firm utilizing the Virginia Broadband Availability Map and Integrated Broadband Planning and Analysis Toolbox, the most recent FCC 477 data, and the FCC Broadband Map, to determine unserved and underserved coverage areas, and any possible overlap. As of the time of this application submittal, there are only three providers, other than satellite, that have reported coverage within the proposed project areas, Century Link, Verizon, and MEC/EMPOWER. According to the research performed, service was either not available or did not meet the 100/20 Mbps requirement.

Maps documenting only unserved and underserved areas are included in the application as all measures to avoid overlap were undertaken. By utilizing these maps, only areas with service less than 100/20 Mbps were included in the proposed design for each County.

Southern Brunswick County's unserved and underserved areas encompass 435 total passings with all addresses lacking access to broadband of 100/20 Mbps or greater. According to the Virginia Commonwealth Connection map, all 435 locations lack access to speeds of 25/3 Mbps. Current MEC/EMPOWER fiber-to-the premise service areas and ongoing projects were excluded from the locations passed; including a CARES project passing 127 locations, ILEC areas covered by a filed loan passing 1,014 locations, and an estimated 164 locations removed from the 1,000-foot buffer along the Fiber Backbone. Also excluded are MEC/EMPOWER's ReConnect grant passing 308 locations.

Halifax County's unserved and underserved areas include 2,945 total passing with all addresses lacking access to broadband of 100/20 Mbps or greater. According to the Virginia Commonwealth Connection map, all 2,945 locations lack access to speeds of 25/3 Mbps. Current MEC/EMPOWER fiber-to-the-premise service areas and ongoing projects were excluded from the locations passed; including a CARES project passing 475 locations, VATI projects (2020, 2021, and 2022) that will serve 4846 locations passed, and an estimated 32 route miles were removed from the 1,000-foot buffer along the Fiber Backbone.

Mecklenburg County's unserved and underserved areas encompass 2,712 total passings with all addresses lacking access to broadband of 100/20 Mbps or greater. According to the Virginia Commonwealth Connection map, all 2,712 locations lack access to speeds of 25/3 Mbps. Current MEC/EMPOWER fiber-to-the-premise service areas and ongoing projects were excluded from the locations passed; including areas already deployed or designated within the ILEC passing 4,939 locations, CARES projects that will serve 255 locations passed, a 2021 VATI project passing 425 locations, and related route miles were removed per the 1,000-foot buffer along the Fiber Backbone.

Southern Charlotte County's unserved and underserved areas, south of Highway 360, encompass 695 total passings with all addresses lacking access to broadband of 100/20 Mbps or greater. According to the Virginia Commonwealth Connection map, all 695 locations lack access to speeds of 25/3 Mbps.

Greensville County's unserved and underserved encompass 2,041 total passings with all addresses lacking access to broadband of 100/20 Mbps or greater. According to the Virginia Commonwealth Connection map, all 2,041 locations lack access to speeds of 25/3 Mbps. The current MEC/EMPOWER fiber-to-the-premise project underway was excluded from the locations passed; CARES project which serves 124 locations passed.

Recognizing the primary objective of the VATI program is to provide broadband services to all residents of the Commonwealth; there are providers who have previously claimed to serve portions of this proposed project area. However, in contrast and by their own admission, through company website and customer service sources, indicate they are unable to provide service along this proposed route when residents inquire. Subsequently, these areas must be regarded as unserved.

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- 5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 25 Megabits per second download and 3 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 Passings Form.
 - a. Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
 - b. If applicable, of the total number of RDOF passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
 - c. If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise. Describe the methodology used for these projections.
 - d. If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.
 - e. Provide the number of passings in the project area that have 25/3 Mbps or less. Describe the methodology used for these projections. (up to 15 points)

Answer:

Passings for all five Counties total 8,828. Following is a breakdown per County:

The total unserved and underserved locations within Brunswick County are numbered at 435. Of these 435 locations, all are eligible under VATI's 100/20 Mbps minimum threshold.

The total unserved and underserved locations within Halifax County are numbered at 2,945. Of these 2,945 locations, all are eligible under VATI's 100/20 Mbps minimum threshold.

The total unserved and underserved locations within Mecklenburg County are numbered at 2,712. Of these 2,712 locations, all are eligible under VATI's 100/20 Mbps minimum threshold.

The total unserved and underserved locations for southern Charlotte County are 695. Of these 695 locations, all are eligible under VATI's 100/20 Mbps minimum threshold.

The total unserved and underserved locations within Greensville County are numbered at 2,041. Of these 2,041 locations, all are eligible under VATI's 100/20 Mbps minimum threshold.

- a. To determine the number of residential, business, non-residential, and community anchors in the project area, county GIS data was cross-referenced with the serviceable locations in the project area. This analysis indicated that the project area contains 8,298 residences, 265 non-home-based businesses, 88 businesses believed to be home-based, 38 community anchors, and 139 other non-residential passings (mainly churches).
- b. Our analysis indicates that of the total number of RDOF passings, 1,824 are residential, 58 are home-based businesses, 1 non-home-based business, and 37 community anchors.
- c. Not applicable.
- d. Not applicable.
- e. Based on a detailed comparison of our field verification data, the Virginia Commonwealth Connection map, information collected by the county from impacted residents, Form 477 data, and other public data, we estimate that all 8,828 locations in the project area lack access to 25/3 Mbps service. See Reference Attachment 3 Documentation Unserved Area VATI Criteria

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6. Describe if any blocks awarded in Rural Digital Opportunity Fund (RDOF) are included in the VATI application area. If RDOF areas are included in the VATI application, provide a map of these areas and include information on number of passings in RDOF awarded areas within the VATI application area, and Census Block Group ID number for each block group in the project area. Label Attachment: Attachment 5 – RDOF Awarded Areas Form in VATI Area

Answer:

Yes, all census blocks awarded in the RDOF auction are included in this VATI application for all five counties that were awarded to RiverStreet, MEC/EMPOWER, SpaceX and CenturyLink. Areas won by other providers, excluding satellite providers, include 560 locations passed. Included in the auction blocks won by MEC/EMPOWER are 1,221 locations passed. Note: Since the map below, dated December 2020, RiverStreet Networks has forfeited all RDOF blocks in Halifax and Mecklenburg Counties, and those in southern Charlotte County.

RDOF blocks as follows:

510259303001

510259303002

510259303003

510259303004

510259303005

510818801011

510818801012

510818801013

510818802001

510839302023

510839304002

511179301011

511179302001

511179303001

511179303002

511179308001

515958901001

515958901002

515958902004

Source: https://www.fcc.gov/reports-research/maps/rdof-phase-i-dec-2020/

Please reference the attachments below:

Attachment 5 - RDOF Awarded Areas Form in VATI Area

Attachment 18 - Stage II Detailed Technical Submission

7. **For wireless projects only:** Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

Not applicable.

8. Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 6 – Propagation Map Wireless Project.

Answer:

This project is a new fiber-to-the-premises deployment connecting currently unserved and underserved locations in the five participating Counties.

The project is "shovel ready" as planning and preliminary engineering are complete. Each segment of this project is designed to efficiently utilize MEC/EMPOWER's overall fiber network and "tree and branch" design, which includes

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substation network hardware, fiber splitting, and fiber loops. Additionally, this project leverages existing main-line pole infrastructure to minimize time-consuming and costly make-ready work, i.e., pole replacements.

Fiber deployed will follow the MEC electric distribution system, where applicable, and will be installed on, or adjacent to, existing facilities within the right-of-way; both overhead and underground deployment will be utilized to gain the most cost-effective resolution. This allows the use of MEC's Geographic Information System (GIS) for the determination of required fiber length along with classification as Distribution, Access, or Drops, to determine the fiber count utilized for each route or section. Typically, the MEC/EMPOWER system uses 144 count fiber for Backbone, 48 and 24 count fiber for Distribution, and 12-count for routes deemed as Access. Additionally, similar opportunities will be exercised utilizing Dominion's middle-mile fiber within its service area, and through the executed MOU.

Regarding the Dominion/MEC/EMPOWER MOU, as the Commonwealth of Virginia has sought to expand broadband services into unserved areas of the Commonwealth, a pilot statute, Virginia Code § 56-585.1:9, became effective July 1, 2019. The statute permits electric utilities to pursue pilot programs with broadband providers and local counties and municipalities to facilitate such expansion. For this application, Dominion Energy and MEC/EMPOWER have executed an agreement for Dominion to deploy middle-mile service to facilitate MEC/EMPOWER extending last-mile service to previously unserved and underserved populations. Both Parties believe their partnership can dramatically expand broadband access to presently unserved areas throughout Brunswick, Halifax, Mecklenburg, Greensville and southern Charlotte Counties. Maps of Dominion's middle-mile build for each county are included in this application. See Attachment 1- Project Area Maps (Combined all counties)

Dominion Energy is deploying new backbone and middle-mile fiber from Halifax County through Greensville County to connect its critical devices and related infrastructure. Subject to the SCC's approval, Dominion will locate its backbone and middle-mile fiber in a manner that enables MEC/EMPOWER to build last-mile fiber to serve unserved and underserved locations, while also supporting Dominion's grid-management objectives. MEC/EMPOWER will lease strands from Dominion's backbone and middle-mile fibers in the five participating Counties to provide a continuous fiber-optic connection between end users and an upstream demarcation point in each respective area. At this demarcation point, traffic will connect to third party middle-mile fiber, connecting the network to MEC/EMPOWER's network core, where MEC/EMPOWER traffic is routed to key internet peering points and upstream transit providers.

Subject to the ongoing design coordination process underway between Dominion and MEC/EMPOWER, the network is anticipated to include 1,001 miles of fiber, of which 666 miles will be backbone, and 335 miles will be last-mile distribution infrastructure. The final network configuration and fiber mileage will be contingent upon SCC approval and is subject to modification during the SCC Petition process and as field modifications are made during construction. Dominion's mainline fiber will be 144-count ADSS fiber with appropriate slack span and coil brackets to adequately manage its electrical grid and to support its current and future needs. Dominion's middle-mile laterals will be 72-count ADSS fiber.

Dominion will provide MEC/EMPOWER access to the Dominion fiber at strategically located splice points throughout the network, which will enable MEC/EMPOWER to connect its last-mile infrastructure in the project area to its network core. Pursuant to the requirements of the Middle Mile Statute, Dominion's infrastructure will not be used to provide service to presently served locations outside of the project area.

MEC/EMPOWER has also executed agreements with Southside Electric Cooperative to utilize their facilities to accommodate MEC/EMPOWER's deployment of middle-mile facilities in their service territory. Additionally, MEC/EMPOWER has executed and maintains agreements with Mid-Atlantic Broadband to utilize their middle mile network to enable MEC/EMPOWER to expand last mile network plans, saving time and money. Both of these relationships will assist with the construction of middle-mile fiber in areas outside MEC's service territory.

Upon notice of grant award, engineers will begin executing the tasks outlined within the project timeline. This includes confirming the final design layout, and field technicians will commence field design and the collection of related field data. Residents benefiting from the successful grant application will be notified through social media and press releases. Additionally, a comprehensive schedule will be developed, and each respective community will be notified of the pending FTTP deployment.

While construction crews install fiber, field technicians will visit each scheduled subscriber's location to plan for and

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stake the drop installation. Crews will then perform the drop installation to the premises and inside contractors will install and test the NID (Network Interface Device), and the Router/ONT for each subscriber.

See Attachment 19 for additional Network Design narrative.

9. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 100/20 Mbps. (up to 10 points)

Answer:

Upstream 37.5 Mbit/customer = (1.2 Gbps)/(32 customers) Downstream 75 Mbit/customer = (2.4 Gbps)/(32customers)

MEC/EMPOWER Broadband, Inc. is using the Calix implementation of Gigabit Passive Optical Network (GPON). GPON is a FTTP technology that implements point-to-multipoint architecture to serve residential and business customers and provide up to 1 Gbps service per subscriber. This technology utilizes fiber optic splitters to enable up to 64 customer locations to be served by a single optical line terminal (OLT) port. However, MEC/EMPOWER has opted to limit splitter assignment to 32.

See Attachment 22 for an example of how the bandwidth is shared utilizing the preferred 1:32 fiber split. Residential packages offered to subscribers within the proposed area are as follows:

50 Mbps/50 Mbps - \$69.95/month (optional VOIP telephone service at \$30/month) **100 Mbps/100 Mbps** - \$119.95/month (optional VOIP telephone service at \$30/month) **300 Mbps/300 Mbps** - \$199.95/month (optional VOIP telephone service at \$30/month) **1 GB** - \$269.95/month (optional VOIP telephone service at \$30/month)

Business packages offered to enterprises within the proposed area are as follows: **50 Mbps/50 Mbps** - \$89.95/month (optional VOIP telephone service at \$34.95/month) **100 Mbps/100 Mbps** - \$139.95/month (optional VOIP telephone service at \$34.95/month) All business packages larger than 100Mbps/100Mbps would require a consultation for a customized quote.

EMPOWER's ONT devices are set to certain specifications with the speed requirement chosen by the consumer. These speeds are verified by the installation technician on the day of installation by using a third-party company who is in not affiliated with EMPOWER Broadband. EMPOWER also utilizes software (Calix Cloud solutions) who is able to test service speeds on a regular basis. This method is approved by the Federal Communications Commission (FCC) as a preferred method of regulation.

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10. Explain how the proposed project achieves universal broadband coverage for the locality or fits into a larger plan to achieve universal broadband coverage for the locality. If applicable, explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage. (up to 50 points)

Answer:

This project is a unique regional initiative between the PDC, five participating Counties, a last-mile ISP, and three electric utilities. To expand and achieve universal coverage, MEC/EMPOWER will utilize its own already constructed fiber backbone, utilize Dominion Energy who will deploy new backbone and middle-mile fiber, and agreements with Southside Electric Cooperative will allow MEC/EMPOWER to utilize their facilities to accommodate MEC/EMPOWER's deployment of middle-mile facilities. Additionally, MEC/EMPOWER maintains agreements with Mid-Atlantic Broadband to utilize their facilities, both of which will assist with the construction of middle-mile fiber in areas outside MEC's service territory.

The project is designed to expand and achieve universal broadband throughout all five counties. This project does not take an incremental, "cherry picking" approach, and will leave no remaining unserved or underserved areas. The project is the region's plan to achieve universal, high quality, fiber-to-the home broadband to every presently unserved and underserved location through a single, regionally coordinated initiative involving multiple vested partners. Achieving universal broadband access throughout the participating Counties significantly leverages the coordination of efforts of Dominion Energy, MEC/EMPOWER, and SEC through ongoing fiber-and facilities deployment.

The project maximizes MEC/EMPOWER's existing network core and related data-center infrastructure, as well as MEC/EMPOWER's customer service, support, and billing capabilities. MEC currently serves as a substantial electric service provider to this five-county area and has the infrastructure currently in place to continue the fiber network to achieve universal coverage to the unserved and underserved residences, businesses, and CAI's. This project presents a once-in-a-generation opportunity to provide universal access to high quality broadband throughout this five-county area representing one of Virginia's most economically challenged regions.

This project serves as a supplement to last years VATI awards and fills the gaps of unserved or underserved residences, businesses, and CAI's. Upon completion and apart from areas already served or awarded to other providers, universal broadband coverage will be available to all premises of these counties.

11. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants are encouraged to extensively discuss, where applicable, easements relating to railroad crossings, federally-owned lands and parks, partnerships with the Virginia Department of Transportation, and mobile home parks. Applicants must include Memorandums of Understanding (MOUs)or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 7 – Timeline/Project Management Plan; Attachment 8 – MOU/MOA between Applicant/Co-Applicant; (up to 10 points)

Answer:

This project's next step will be the final design phase as planning and preliminary engineering are completed. The system's first phase (Backbone) is complete, and this application focuses more on the deployment of Distribution Class (FTTP Mid-Mile) fiber, along with the required Access Class fiber (last mile) and drops. Where needed, MEC/EMPOWER has agreements in place to utilize middle-mile fiber from Dominion Energy and MidAtlantic Broadband (MBC) to expand last-mile fiber deployment.

MEC/EMPOWER and Dominion Energy have executed a MOU and have an executed fiber lease providing MEC/EMPOWER access to Dominion's network elements.

Dominion has scoped the mainline route throughout the project area and is presently preparing environmental permits for the mainline route. Dominion's fiber construction will commence promptly upon the SCC's Final Order on the SCC Petition. Accordingly, Dominion Energy anticipates completing the construction of the proposed mainline fiber within 18 months of SCC approval. Dominion will begin construction of its middle-mile infrastructure concurrently with mainline construction and projects completion of middle-mile construction within 28 months of SCC approval. EMPOWER will commence construction of its last-mile infrastructure concurrently with Dominion's construction.

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MEC/EMPOWER will deploy and light last-mile fibers in conjunction with Dominion's construction schedule so that end users can be connected to the last-mile network as soon as upstream middle-mile and backbone fiber are in place. To ensure the network is successfully and effectively utilized by unserved locations, EMPOWER will market the network to potential subscribers as soon as the SCC has ruled on the submitted petition.

It should be noted that MEC/EMPOWER has over 500 miles of fiber cable in stock, with additional shipments strategically scheduled in order to remain stocked and mitigate potential delays as supply chain issues increase. MEC/EMPOWER has also secured Magellan Advisors to serve as our Owner's Engineer firm to assist in the 2022 VATI grant award design and construction oversight. Magellan will also assist in all future grant projects. Contract negotiations are also near completion to ensure labor for said awards.

Within 30 days of the notice of grant award, MEC/EMPOWER will commence the completion of the final fiber design and execution of contracts with contractor to commence construction in the five-county project area. This will include GPON fiber splits, splice can locations, and final material list to proceed with purchase orders. VDOT and railroad crossings have been identified and permit requests will be promptly filed and substantially completed through the project timeline. Premises benefiting from this grant will be notified by letter of the pending zone deployment.

Contract field engineers will immediately visit all phase one construction areas to confirm required permits, material requirements, material acquisition, and to designate pending make-ready work. As a result of the field review, technicians will detail all make-ready work including associated poles requiring replacement. This final layout will be assigned to contracted construction crews to complete these tasks followed by distribution and access class fiber installation. Make-ready and fiber installation activities will be scheduled for all phase one work within 20 weeks.

Both 144-count fiber and distribution class lower count cables will be spliced by contractors with quality control managed by EMPOWER's fiber technicians. While construction crews perform overhead make-ready work, or complete directional boring for underground sections of the line; contractors under MEC/EMPOWER's supervision will visit each subscriber's location and plan the drop installation. Crews will then perform the drop installation to the premise installing the NID (Network Interface Device), and the Router/ONT.

MEC/EMPOWER's last-mile infrastructure will primarily be located within existing public rights of way and on the property of subscribers who have requested service. MEC/EMPOWER's easement requirements are anticipated to be minimal.

Given the size and scope of the project, it is anticipated that 36 months (about 3 years) will be required to achieve substantial universal completion and a work plan/timeline has been created.

Both the Southside Planning District Commission (SPDC) and MEC/EMPOWER share the mission of serving the citizens of Brunswick, Halifax, Mecklenburg, Charlotte, and Greenville Counties. We share the objective to resolve the complication and plight of the massive digital divide between Southside Virginia and other areas of the Commonwealth. Collectively, we have heard from residents calling for resolution to this significant dilemma; our teams, including the County Administrators, the Board of Supervisors, the County's Broadband Committees, SPDC Executive Director, MEC/EMPOWER CEO, Board of Directors, and staff have elected to work together to deliver a needed solution. Accordingly, MEC created EMPOWER Broadband to effect just such a change.

As MEC/EMPOWER are jointly applying with the SPDC, the SPDC shall administer the grant and serve in a project oversight role to accomplish the grants goals and objectives. Included as an attachment is a copy of the unexecuted agreement between the SPDC and MEC/EMPOWER. The SPDC and MEC/EMPOWER will expand the terms of the existing agreement with approval of the proposed 2023 VATI grant.

The County's Board of Supervisors have also approved this grant application; see their letters of support included with this application.

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12. Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.

Answer:

Yes, the co-applicant, EMPOWER Broadband, has received several VATI grants which are listed below:

•2020 VATI Grant with Halifax County (\$2,896,709)

This project included 37 miles of fiber, passing 679 locations and has been completed and currently serves 242 customers.

•2021 VATI Grant with Mecklenburg County (\$449,381)

The 2021 VATI grant partnering with the County of Mecklenburg in the amount of \$449,381 is on track for completion by October 31, with 22 miles of fiber, 17.2 miles of upgraded coax and passes 1,453 locations including 1,438 serviceable units and 15 businesses and community anchors.

•2021 VATI Grant with Halifax County (\$313,629)

Mainline and drop construction are underway with projected completion by year end 2022. This 14-mile project passes 200 locations.

•2022 VATI Grant with Southside Planning District Commission in partnership with Halifax, Charlotte, Mecklenburg and Brunswick Counties (\$69,281,635.37)

The three-year contract term began on July 22, 2022. Construction has begun and crews will work simultaneously throughout all four counties.

13. Matching funds: Complete the funding sources table indicating the cash match and inkind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note that a minimum20% match is required to be eligible for VATI, the private sector provider must provide10% of the required match. If the private co-applicant cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. If applicants and co-applicants are seeking to include prior expended funds as matching funds, Attachment 11 must be completed. Label Attachments: Attachment 9 - Funding Sources Table; Attachment 10 - Documentation of Match Funding; Attachment 11 - Prior Expended Match Form

Answer:

The total cost of the project area is \$58,335,229.65 to pass 8,828 locations. For this project, the applicant and coapplicant are requesting \$29,267,614.83 in VATI grant funds, constituting 50% of the total project cost at \$3,315 per location passed. The co-applicant, Mecklenburg Electric Cooperative and EMPOWER Broadband, are contributing \$5,714,436.85 of in-kind funds towards the project to be used for network equipment and towards construction efforts to complete the project build-out. Additional matching funds include monies from Dominion Energy's middle-mile fiber build \$21,821,225.51, Brunswick County \$47,952.46, Halifax County \$325,000.00, Mecklenburg County \$300,000.00, and Greensville County \$859,000.00. The total amount of matching funds constitutes 50% of the total project cost in the amount of \$29,067,614.82.

The applicant, Southside Planning District Commission is contributing with the assistance of data collection, consulting services and grant administration.

14. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project. (up to 10 points)

Answer:

A significant component of EMPOWER's universal fiber coverage plan comes via Virginia Code § 56-585.1:9, effective July 1, 2019 (the "Pilot Statute"), as the Commonwealth of Virginia sought to expand broadband services into unserved areas of the Commonwealth. This statute permits electric utilities to pursue pilot programs with broadband providers, local counties, and municipalities to facilitate such expansion. Under this legislation, Dominion and EMPOWER have agreed to a deployment plan where Dominion constructs middle mile service to facilitate EMPOWER extending last-mile service to unserved populations throughout the communities of Virginia. EMPOWER and Dominion recognize this partnership will dramatically expand broadband access to presently unserved areas across Southside Virginia.

Dominion has also participated in the regional planning process at no cost to the project and has provided internal analysis and results of previous broadband planning studies in support of the project's development. Dominion will also incur the expenses of easement acquisition and other related permitting necessary to bring the overall project to

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completion ... these costs are not reflected in project construction costs.

In a similarly important partnership, EMPOWER also has an agreement with Mid-Atlantic Broadband to utilize their middle-mile fiber facilities when and where needed. Perhaps more importantly, the two entities have a fiber sharing/trading agreement which has saved EMPOWER \$5 million dollars. MBC and MEC/EMPOWER have worked in coordination over the last few years to leverage the middle mile fiber network made possible by investments from the Commonwealth of Virginia.

The project will leverage EMPOWER's existing network core and related data-center infrastructure, as well as EMPOWER's customer service, support, and billing expertise.

Additionally, EMPOWER Broadband was awarded \$5,053915 in Federal funds received as part of the RDOF auction for Brunswick, Halifax, Greensville and Mecklenburg counties, that will be paid out over the next 10 years to support the buildout as revenues and subscribers grow to become self-sustaining. The RDOF blocks awarded to EMPOWER are strategically located in areas adjacent to its foundational fiber backbone.

EMPOWER has established a strong and valuable partnership with its current contractors and supply chain vendors, all of whom will play a critical role in this project. Discussions with these partners, as well as other potential providers, are ongoing with regards to this comprehensive buildout and deployment. Accordingly, EMPOWER is ahead of the game by placing large fiber orders in the gueue to mitigate lead time.

Several other factors played a vital role in the selection of the proposed project area and should be considered beneficial to the project. Pre-existing resources that have already been built by MEC and its subsidiaries EMPOWER Broadband and EMPOWER Telecom constitute a major factor in this project. The proposed project areas can easily be expanded from the pre-existing fiber backbone that includes a 135-mile fiber backbone section funded in partnership with MEC and the Virginia Tobacco Region Revitalization Commission (TRRC). This round of VATI funding creates the opportunity to "fill in the gaps" and deliver service to all portions of the counties considered unserved or underserved.

Other factors that led to our decision to pursue additional construction in these areas was the direct and loyal support of the staff at Brunswick, Halifax, Mecklenburg, Charlotte, and Greenville Counties, and the representatives on their respective Boards of Supervisors. These requests converged with numerous and urgent requests from those within our communities...both Cooperative Members and those representing inadequately served individuals. Mecklenburg Electric Cooperative is recognized as a community leader and has demonstrated the ability to deliver on the construction and maintenance of large capital projects. Additionally, EMPOWER has followed in the footsteps of its parent company and is delivering a much-needed service and delivering on its commitments.

The Southside Planning District Commission has provided personnel, including GIS staff and resources, to support the application process. That support will continue through final design and construction. The participating Counties will also participate in joint marketing events, and public meetings to inform our region, and encourage adoption by our residents.

Furthermore, EMPOWER fiber subscribers provide additional leverage as they share the news of their newly installed robust broadband service with their neighbors. To date, we have written commitments from a significant number of those living in these areas, who have agreed to take the service once the project gains approval. EMPOWER utilizes a business principle of reinvesting revenue generated from those receiving services to further expand broadband expansion in other areas. This community commitment means revenue will be readily available to expand broadband services in other areas yet to receive funding of any type.

15.

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Communications Plan: Describe efforts to keep the public informed of project progress and the broadband adoption plan.

- a. Explain how you plan on communicating the project status to stakeholders, including but not limited to County leadership, project areas residents, etc. (Up to 10 points)
- b. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate. (up to 10 points)
- c. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

Answer:

a. MEC/EMPOWER has regularly scheduled meetings with county administrators and attends monthly board of supervisor meetings to give updates and answer questions. Additionally, MEC/EMPOWER continually updates each county on milestones reached as projects progress. These updates are done through emails, phone calls and in-person meetings.

A Construction Schedule is updated quarterly online at www.empowermec.net that shows completed, current and future projects. Social media is also used to update the community of ongoing construction and deployment across the six counties served by EMPOWER.

Mailers and emails are sent to all residents and businesses in each project area before construction begins. Information includes the start and projected completion date, service options, an application and online account management tool information.

Yard signs and door-to-door information packets are also dispersed when necessary to inform members of construction in the area.

b. As EMPOWER construction crews begin the process of moving into a new area, staff will go along the route and strategically place EMPOWER "Internet Construction Zone" signs to alert residents of what the crews will be doing in the coming weeks. These signs will then be followed up and replaced with EMPOWER "APPLY NOW" signs once applications can be accepted in an area. Packets are also put together to go out to residents in the mail with a letter informing them of the construction process, a timeline on when construction is expected to be completed and most importantly, when they can expect service to be up and running in their home. These packets also include an application and self-addressed return envelope. In some instances, to boost take rates, packets are delivered door-to-door with information about the services including an application for service. When available, local community gathering spots, or institutions, such as a fire department, Ruritan Club, etc. will be utilized as host for a community "town hall" type meeting where residents can learn more about the process and ask questions about what they can do with the service. This also aids in helping improve and boost digital literacy. All these steps are promoted on EMPOWER's social media platform and local printed media outlets.

The original feasibility study conducted by Pulse Broadband for the entire MEC area, based on national statistics from rural cooperative areas, much like Southside Virginia, and with similar service offerings, estimated the take rate (number of homes expected to subscribe for services) for the entire EMPOWER serving area to be 45 percent within two years of project completion.? This expected take rate is also?based?on research conducted and adopted by the Pew Research Institute.? Accordingly, from the 8,828 locations passed, an estimated 3,973 would take service within 24 months.? However, after Broadband discussions with the citizens and businesses in the proposed area and the interest generated by the fiber deployment, it is anticipated that subscribers will exceed the 45 percent take rate. Cooperatives offering broadband in other regions have experienced averages closer to 60 percent.

See attached Marketing Plan

c. Currently, the five County public libraries utilize programs such as basic computer skill classes, promotion of online

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resources (i.e., videos) through social media pages and the use of e-books and audio books to promote digital literacy within the community. The County Cooperative Extension Offices are also early in the development of their own digital literacy programs that will be available to county residents. Unfortunately, many of these efforts were hindered by the effects of COVID-19.

To help mitigate the lack of resources, EMPOWER staff has already worked to create its own digital literacy tool kit to help educate those in the community about access to the world of resources provided by broadband. One of these programs is a simple, yet effective open house in which members of the community are invited to join the staff at one of EMPOWER's facilities, or a selected location within the community, where staff demonstrates how broadband service can be used to enhance everyday life. Attendees can also speak with staff about any issues/questions they may have about the improvements to their digital lives prompted by fiber service.

Social media is another platform in which staff is using effectively to increase digital literacy; brief, informative videos are being created that highlight certain aspects of the construction process and the ways that subscribers can use VoIP services, television streaming, etc. Since the changes prompted by COVID-19, staff members have created a Virtual Town Hall meeting open to the public to educate residents on the process involved in the actual construction of fiber-to-the-premise, but also use it as a tool to explain that broadband is more than just the internet and can be used in numerous daily activities.

Another program under development is "Seniors helping Seniors." This is a program that will utilize volunteers from the local high school senior class who would "pair up" with a senior citizen from the community. In this program, students serve as teachers and help explain how to use basic programs not only on a computer, but also on devices such as Firesticks, Roku, etc. that can be utilized with access to broadband.

Virginia Tech also hosts Digital Literacy Symposiums with the most recent having participants exploring online identities through the many roles as students, educators, scholars and more. Resources such as this, though not directly associated with either the applicant or co-applicant, can be easily promoted through the local Cooperative Extension Offices to notify county residents.

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16. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co applicant's history and experience with managing grants and constructing broadband communication facilities.

Answer:

The executive team at MEC/EMPOWER Broadband is responsible for the management of all grant related projects. This team is experienced, well-positioned, capable, and eager to implement, manage, operate, and maintain the services proposed. The Project Management Team will meet on a regular and as needed basis to ensure the effective and timely management of the project. The team will review project activities and propose adjustments to the project management plan, as needed, to ensure the project is professionally designed, built within budget, and is tracking to meet the agreed upon schedule. Any significant revisions to the project activities or budget will be shared as appropriate. Processes for overall project management, including financial management, design, and construction, have already been implemented, and are more than sufficient to accommodate this effort.

Mecklenburg Electric Cooperative and EMPOWER Broadband Inc. are currently administering two grants for the TRRC's R&D Last-Mile Broadband Project, one sponsored by Mecklenburg County, and another sponsored by Pittsylvania County. Mecklenburg Electric Cooperative was also a recipient of a 2020 VATI grant in partnership with Halifax County, 2021 VATI grant funds were received in partnerships with Halifax and Mecklenburg Counties, and 2022 VATI grant funds were received in partnerships with the Southside Planning District Commission, Brunswick, Halifax, Charlotte, and Mecklenburg counties to provide universal coverage.

Mecklenburg Electric Cooperative has extensive experience in managing projects similar in scope to the project being proposed in this application. MEC, EMPOWER's parent company, was formed in 1938, over 80 years ago. Currently, MEC operates and manages \$211 Million in utility plant here in Southside Virginia. That system provides services to over 34,000 homes and businesses through 4,500 miles of electric line. As a current borrower in good standing with USDA's RUS (Rural Utilities Service), Mecklenburg Electric Cooperative is required to maintain highly detailed records and is stringently held accountable for proper data and project management. Mecklenburg Electric Cooperative and EMPOWER Broadband will implement the same degree of accountability standards, and due diligence measures, for the DHCD grant program as well. MEC has also received Federal Communication Commission (FCC) Connect America Funds (CAF) to provide service to 848 residences and businesses in southern Brunswick County; and a USDA Reconnect loan to build fiber-to-the-premise to approximately 844 homes and businesses in portions of Brunswick County.

MEC has also received an RUS ReConnect Grant that will provide broadband to two underserved areas within southcentral Brunswick County, and northern Halifax County, through fiber-to-the-premise access. This project integrates with current funding EMPOWER received from the CAF-II auction, last year's low interest ReConnect loan, and the 2020 VATI grant. EMPOWER also partnered with all five counties in receiving CARES funding that expanded service into additional areas where fiber had been previously deployed.

EMPOWER was awarded RDOF census block groups in all three respective counties and collectively, these projects represent the commitment of both MEC, and EMPOWER Broadband, to provide affordable, reliable high-speed broadband service to residents of Southside Virginia.

Today, MEC and its subsidiary, EMPOWER Broadband, are building and deploying hundreds of miles of new fiber. EMPOWER is committed to providing high-speed internet and voice services to unserved areas by utilizing its extensive experience in design, installation, and maintenance of electric and broadband infrastructure. Today, EMPOWER has approximately 2,725 access lines, over 1,600 DSL internet subscribers, and over 2,550 fiber internet subscribers, a number that grows each day.

Additionally, EMPOWER's partnership with the Southside Planning District Commission brings extensive experience in administering grant-funded activities, including projects funded by state and federal agencies.

See Attachment 19: Additional Narrative for Project Management Team

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17. Project Budget and Cost Appropriateness

Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 12 – Derivation of Costs; Attachment 13 - Documentation of Supporting Cost Estimates. (up to 10 points)

Answer:

The VATI funds requested by both the applicant and co-applicant will be utilized for the total costs of both aerial and underground mainline construction and drop construction of the proposed fiber system for all five counties to expand and provide universal coverage for a total amount of \$29,267,614.83? MEC, EMPOWER Broadband, Dominion Energy, and Halifax, Mecklenburg, Brunswick and Greensville Counties will provide matching funds in the amount of \$29,067,614.82 that will be utilized for the remaining construction costs, as well as the following:

Outdoor Wall Mount Labor
Outdoor Wall Mount Materials
Splicing Labor
Splicing Materials
Staking Labor
ONT (router) labor
ONT (router) materials
E7-2 Package Chassis
GPON SFP OIM, Class B+ 1490/1310nm
E7-2 8 Card PON Unit

These costs are listed in detail in the derivation of costs spreadsheet that is attached and labeled Attachment 12, and supported by Attachment 13, documenting the supporting cost estimates.

- 18. The cost benefit index is comprised of state cost per unit passed. Individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:
 - a. Total VATI funding request

b. Number of serviceable units (up to 125 points)

Answer:

a. Total VATI funding request

The total VATI funding request is \$29,267,614.83. The total project cost is \$58,335,229.65

b. Number of serviceable units

The number of serviceable units passed is 8,828 which equals \$3,315 per unit passed.

19.

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Commonwealth Priorities (Up to 50 points)

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- b. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- c. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 100/20 mbps, include information regarding the internet service provider's participation in the Affordable Connectivity Program
- d. The co-applicant's efforts to mitigate supply chain constraints, including labor shortages and order-to-delivery delays on telecommunications materials required to construct broadband networks.
- e. The applicant's and co-applicant's efforts to promote broadband adoption, including, but not limited to: telehealth, smart farming, e-entrepreneurship, and distance learning.

Answer:

- a. If this extension of universal coverage project is approved, ALL unserved and underserved passings will receive access to broadband with speeds of 100/20 Mbps and higher, if they so choose. The project area is overwhelmingly rural and accordingly, is the most challenging and least financially viable areas for broadband deployment. Economic development within the project area has unquestionably been hindered by the lack of broadband access. Completion of this project will support economic development in these areas and encourage both the expansion of existing businesses, as well as attracting new businesses and industries, and prompt the development of additional community anchor institutions.
- b. Both the applicant and co-applicant recognize this project will require resilient, dedicated partnerships to achieve universal coverage in Virginia. Since the Commonwealth of Virginia is seeking to expand broadband services into unserved areas of the Commonwealth, a Pilot Statute, Virginia Code § 56-585.1:9, became effective July 1, 2019. The Pilot Statute further permits electric utilities to pursue pilot programs with broadband providers and local counties and municipalities to facilitate such expansion. For this application, Dominion Energy and EMPOWER have executed an agreement for Dominion to deploy middle mile service to facilitate EMPOWER extending last-mile service to unserved populations. Both parties understand this partnership can dramatically expand broadband access to presently unserved areas throughout Brunswick, Halifax, Mecklenburg, Greensville, and southern Charlotte Counties.

EMPOWER has also executed agreements with Southside Electric Cooperative to utilize their facilities to accommodate EMPOWER Broadband's construction of middle-mile fiber in their territory.

EMPOWER will utilize Mid-Atlantic Broadband (MBC) facilities to deliver service, outside of EMPOWER's existing service territory, and the relationship includes a fiber trading agreement that represents \$5 million in savings to EMPOWER. MBC and MEC/EMPOWER have worked in close coordination over the past few years to leverage the middle mile fiber network made possible by investments from the Commonwealth of Virginia.

The VMD Association of Broadband Cooperatives partnership is allowing a large group of Cooperative affiliated broadband providers to take advantage of economies of scale for services and equipment and to secure significant resources to promote large fiber network builds.

Partnerships with Cooperative Finance Cooperation, CoBank, and the USDA Rural Utility Services will provide immediate sources of matching funds for MEC/EMPOWER Broadband to utilize for this application.

c. The project will provide universal broadband in excess of the current 100/20 Mbps VATI standards, with up to 1 GIG offered. At \$69.95 for the Premium package, the monthly cost of this high-quality network will be considerably below what many of the serviceable locations are currently paying for sub-standard satellite service, and therefore provide

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higher quality broadband at a cost that is a net reduction from what unserved residents are paying today. If the project is approved, the five participating Counties will each engage in extensive community outreach, targeting low- to moderate-income households, to ensure they are aware of, and take advantage of, access to this affordably priced, high-quality broadband service. The project will ensure that all residents of the participating Counties can telework and participate in distance learning, so that no child or family is disadvantaged by lack of broadband.

Additionally, Southside Virginia is perhaps the Commonwealth's most economically disadvantaged region; this project promotes both education and economic development, both of which are required to deliver desperately needed jobs. It should be further noted that in a 2014 Weldon Cooper study, Virginia's Southside Region was the only region to lose population and regretfully, the region also demonstrated the highest levels of poverty. Subsequently, the value of delivering fiber distribution facilities into the rural areas of Southside Virginia cannot be overstated.

- d. EMPOWER Broadband's material procurement department has worked diligently to ensure that EMPOWER crews have plenty of material on hand to continue construction efforts through a time where material sourcing and supply chain issues have become the new standard. Currently, EMPOWER Broadband has over 500 miles of fiber, on hand, in the equipment warehouse along with an additional 300 miles of fiber to be delivered by the end of the calendar year. EMPOWER also has contract purchase agreements with several companies to provide materials such as fiber, vaults, cans ADSS single/double jackets, etc. on a scheduled and routine basis to keep supplies well stocked. EMPOWER also has an agreement with its construction contractor for the 2022 VATI award that was recently executed to include an agreed upon inventory of supplies for projects currently underway and in the future.
- e. EMPOWER Broadband and its county/PDC partner's efforts to promote broadband adaption tie in closely with its digital literacy efforts. Through marketing materials, social media posts, community events, etc., EMPOWER has stressed the multiple resources that are now available to county residents, thanks to the new broadband services that are available. These resources include telehealth options, not only through health insurance applications available nationwide, but also local options through hospital providers such as Sentara, VCU Community Memorial Hospital, Centra and Duke.

Being a predominately rural community, the implementation of these services will allow agricultural agencies such as Farm Service Authority, Soil and Water Conservation Districts, and Virginia Cooperative Extension Offices to promote remote learning seminars, practices, and tools that are now available to better optimize one's operations. These benefits can offer resources for efficiency in producing their product as well as offering a wider spectrum of platforms on which they can market their goods and promote their businesses.

See Attachment 19: Additional Narrative for continued response

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20. Additional Information

Please attach any letters of support from stakeholders. If the applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality.

Attachment 14 – Letters of Support.

Provide the two most recent Form 477 submitted to the FCC, or equivalent, as well as point, polygon, and, for wireless providers, RSSI shapefiles for the project area **in .zip file form**. With attachments 17 through 20, attach any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 15 –Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 16 Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area
- c. Attachment 17 For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area
- d. Attachment 18 XXXXXXX
- e. Attachment 19 XXXXXXX
- f. Attachment 20 XXXXXXX

Answer:

Attachments Table of Contents:

- 1. Project Area Map
- 2. Documentation of Federal Funding Area
- 3. Documentation Unserved Area VATI Criteria
- 4. Passings Form
- 5. RDOF Awarded Areas Included in VATI
- N/A
- 7. Draft Project Management Plan and Project Management Timeline
- 8. Draft MOU Between EMPOWER, SPDC, Brunswick Co, Charlotte Co, Greensville Co, Halifax Co, and Mecklenburg Co and Executed MOU Between EMPOWER and Dominion
- 9. Funding Sources Table
- 10. Documentation of Match Funding
- 11. N/A
- 12. Derivation of Costs
- 13. Documentation of Supporting Cost Estimates
- 14. Letters of Support
- 15. Two Most Recent Form 477
- 16. Point & Polygon Shapefiles
- 17. N/A
- 18. Stage II Detailed Technical Submission
- 19. Additional Narrative
- 20. 2022 Marketing Plan with Attachments

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Southside Planning District Commission

Regional Fiber Broadband Project Phase 2

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap824202222912.pdf

Documentation of Federal Funding (CAF/ACAM/USDA/RDOF, etc...) in and/or near proposed project area.

Attachment2DocumentationofFederalFundingArea824202225500.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnservedAreaVATICriteria824202225520.pdf

Passings Form (Use template provided)

Attachment4PassingsForm824202222927.pdf

Documentation of RDOF awarded area in VATI project Area (Use template provided)

Attachment5RDOFAwardedAreasForminVATIArea824202222948.pdf

Timeline/Project Management Plan

Attachment7TimelineandProjectManagementPlan825202213216.pdf

MOU/MOA between applicant/co-applicant (can be in draft form)

Attachment8MOUBetweenApplicantandCoApplicant8252022115015.pdf

Funding Sources Table (Use template provided)

Attachment9FUNDINGSOURCESTABLE824202223038.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFunding8252022100339.pdf

Derivation of Cost/Project Budget (Use template provided)

Attachment12DerivationofCosts8252022113704.pdf

Documentation of Supporting Cost Estimates

Attachment13DocumentationofSupportingCostEstimates824202223143.pdf

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Southside Planning District Commission Regional Fiber Broadband Project Phase 2

Letters of Support

Attachment14LettersofSupport8252022100404.pdf

Two most recent Form 477 submitted to the FCC or equivalent

Attachment15FCCForm477Dec12June22824202224105.pdf

Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area

Attachment16PointandPolygonShapefiles8252022100428.zip

Optional

Attachment18StageIIDetailedTechnicalSubmission824202224150.pdf

Optional

Attachment19AdditionalNarrative824202243917.pdf

Optional

Attachment202022MarketingPlanwithAttachments824202224934.pdf

Notes:

The Southside Planning District Commission is open to discussing phasing the proposed project if necessary.

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2023 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number of Passings in the Project Area ¹	Passings in the Project Area, without Special Construction Costs Required ²	Construction Costs budgeted	Number of Passings with Speeds at 25/3 or below in Project Area 4
Residential	8,298	8,298	0	8,298
Businesses (non-home based)	265	265	0	265
Businesses (home-based)	88	88	0	88
Community Anchors	38	38	0	38
Non-residential	139	139	0	139
Total	8,828	8,828	0	8,828

Note: The Total Number of Passings <u>MUST</u> be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

Note: Do not include passings in RDOF awarded areas that were awarded to the co-applicant; these passings should be included in the RDOF Passings Form. Passings included in this application in RDOF awarded areas that were not awarded to the co-applicant, unless successfully challenged, are considered unserved and should be counted as passings in this form.

¹The total number of structures in the project area that can receive service. See definition of passing below for more detail.

²The number of structures in the project area that will not require special construction costs to provide service to. These passings fall within the broadband provider's standard service connection drop length and do not require nonstandard equipment or any additional fees above normal service connection fees required to provide broadband access to a premise.

³The number of structures in the project area with all construction costs budgeted in the application. These passings will not require any additional special construction costs beyond those budgeted for in the VATI application.

⁴The number of structures in the project area that do not have access to internet at speeds of at least 25 mbps download and 3 mbps upload.

Definitions

Passing – any structure that can receive service. Multi-unit structures may be counted as more than 1 passing, provided individual connections and account are planned at that structure.

Business – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

Community Anchor - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

Non-Residential Passing – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

2023 Virginia Telecommunication Initiative (VATI) RDOF Passings Form

Type of Passings	Total Number of Passings in the Project Area that lie within Preliminarily Awarded RDOF Areas ¹
Residential	1,824
Businesses (non-home based)	1
Businesses (home-based)	58
Community Anchors	37
Non-residential	0
Total Number of RDOF Passings	1920

Note: The Total Number of RDOF Passings <u>MUST</u> be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

Definitions

Passing – any structure that can receive service. Multi-unit structures may be counted as more than 1 passing, provided individual connections and account are planned at that structure.

Business – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

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Non-Residential Passing – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

Southside Planning District Commission South Hill, Virginia

PROJECT MANAGEMENT PLAN

REGIONAL FIBER BROADBAND PROJECT

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT VIRGINIA TELECOMMUNICATIONS INITIATIVE

VATISF #TBD

PREPARED BY:
Southside Planning District Commission and
EMPOWER Broadband, Inc.

Date: August 22, 2022

PROJECT DESCRIPTION

This project is a regional initiative led by the Southside Planning District Commission (PDC) as the grant applicant on behalf of the Counties of Brunswick, Charlotte, Greensville, Halifax, and Mecklenburg. Private project partners include EMPOWER Broadband, Dominion Energy, Mid-Atlantic Broadband, and Southside Electric Cooperative. EMPOWER Broadband is the wholly owned subsidiary of Mecklenburg Electric Cooperative (MEC), a member-owned utility that has been proudly and successfully serving its members in Southside Virginia for over 80 years. These partners have worked to develop a comprehensive regional strategy to achieve universal fiber-to-the-premise coverage. On behalf of this partnership, the Southside PDC was awarded a FY 23 VATI grant to support the developed project and provide universal broadband coverage to the Region. Each of the following participating counties has pledged a cash match in support of this project as follows Brunswick \$47,952.00, Greensville \$859,000.00, Halifax \$325,000.00, and Mecklenburg \$300,000.00.

The project area comprises five counties: Brunswick, Charlotte, Greensville, Halifax, and Mecklenburg. The project will result in universal coverage, as defined by the DHCD grant criteria (any area that cannot receive internet speeds greater than 100/20 Mbps), for those in the project area who are currently unserved or underserved. This fiber expansion project will utilize the foundational fiber backbone deployed on MEC's electric infrastructure, and where needed, utilize the facilities of Dominion Energy, Southside Electric Cooperative, and Mid-Atlantic Broadband to expand broadband coverage outside of MEC's territory. VATI funds will be utilized to expand the backbone's reach and increase service availability to those that currently have no access, or limited access, to high-speed broadband internet.

PROJECT MANAGEMENT TEAM & MEETINGS

The purpose of the Project Management Team (PMT) is to monitor the project's progress and ensure it is on schedule, within budget, and that all contract activities are delivered. PMT meetings will be held monthly at the SPDC Office and/or via Zoom. The PMT will look at the "big picture" and propose adjustments to the Project Management Plan (PMP), as needed, to ensure actions taken, or not taken, will not negatively impact the project's success. Any significant revisions to the PMP or budget will be approved by the PMT.

The PMT shall consist of participating County Administrators, the Grant Administrator, the Grant Manager, the Financial Manager, Project Architect/Engineer, Internet Service Provider (ISP), and other stakeholders as appropriate. The duties will include:

1. Project notifications and communications will be the responsibility of the PMT which will meet at least monthly, or more often as needed. Any communication needed between meetings will be conducted via email.

- 2. Erika Tanner will schedule, distribute digital access invites (Zoom), and facilitate all PMT meetings. She will also provide an agenda and record and distribute meeting minutes to the PMT. The minutes will be kept in the project files to document the decisions made by the PMT.
- 3. Each PMT meeting will include the following from EMPOWER: an update from Dwayne Long and/or B.J. Seamans to include project progress to date and timeline status, current activity sites per County, and a budget report from Carol Ann Jones.
- 4. The PMT will review the project timeline presented to determine if deadlines are being met. If deadlines are not being met, the PMT will determine what, if any actions need to be taken to get the project back on track.
- 5. David Lipscomb and/or John Lee will keep the EMPOWER Board up to date on the project's progress.
- 6. Deborah Gosney and/or Mrs. Tanner will keep the SPDC up to date on the project's progress.
- 7. Each partner County Administrator will keep their respective Board of Supervisors up to date on the project's progress.
- 8. The project is projected to be completed by September 30, 2026.
- 9. Mrs. Tanner will prepare, upload, and submit via CAMS all VATI required reports and correspondence documents. EMPOWER will provide all VATI required documents, data, and/or other information requested by Mrs. Tanner to allow VATI reporting to remain in compliance of VATI program guidelines.
- 10. Any potential contract or budget amendments will be discussed with the PMT. Mrs. Tanner will enter and submit any required amendments in CAMS and provide all appropriate persons a copy of any approved contract amendments.

PROJECT ROLES AND RESPONSIBILITIES

Member	Affiliation	Project Responsibilities
Deborah Gosney, Executive Director	Southside PDC	Grant Administrator - Signatory of the VATI contract. Liaison between EMPOWER, VATI, and County Partners. Broad oversight to ensure that the project is implemented pursuant to the terms of VATI Contract and SPDC MOU.
Erika Tanner, Community Planner	Southside PDC	Grant Manager – Review remittances/reports for accuracy and completeness and submit into CAMS. Maintain project files. Organize and facilitate meetings and record minutes. Assist with project close-out reporting.

Member	Affiliation	Project Responsibilities
John C. Lee, Jr., CEO and President	EMPOWER	ISP Chief Manager - Oversee project implementation and adherence to project timeline. Communication and marketing.
Dwayne Long, Chief Operating Officer	EMPOWER	ISP Manager - Oversee project implementation and adherence to project timeline. Provide project progress report to PMT at monthly meetings.
David Lipscomb, Vice President of Member and Energy Services	EMPOWER	ISP Administrator – Primary Empower contact for SPDC. Oversee project adherence to VATI guidelines. Keep EMPOWER Board abreast of project activities. Liaison between EMPOWER, SPDC, and VATI. Provide all required non-financial project files to SPDC.
Carol Ann Jones, VP of Finance	EMPOWER	ISP Financial Manager – Monitor and record VATI and non-VATI (match) expenditures to ensure project remains within budget. Provide all project financial documents (invoices, receipts, proof of payment). Monitor overall project budget and present financial report at meetings.
Sherry Harris, Administrative Assistant	EMPOWER	ISP Administrative Assistant – Performs administrative tasks as necessary
Brian Woods, Director of Engineering	EMPOWER	ISP Engineering Coordinator – Coordinates engineering plans of fiber infrastructure for project.
B.J. Seamans, VP of Engineering	EMPOWER	ISP Internal Engineer – Oversee project engineering and adherence to project timeline.
Robert Lankford	EMPOWER	ISP Engineering & Construction Manager – Coordinates construction of fiber infrastructure for project.
Jim Guy	EMPOWER	ISP Attorney – Oversee all legal aspects of project and complete any required contract/document review and response.

Member	Affiliation	Project Responsibilities							
Leslie Weddington, County Administrator	Brunswick County	County representative- Attend PMT meetings as needed to monitor progress of project, provide input, and keep BOS up to date on project activities.							
Daniel Witt, County Administrator	Charlotte County	to monitor progress of project provide input and keep							
Dr. Charlette Woolridge, County Administrator	Greensville County	County representative- Attend PMT meetings as needed to monitor progress of project, provide input, and keep BOS up to date on project activities.							
Scott Simpson, County Administrator	Halifax County	County representative- Attend PMT meetings as needed to monitor progress of project, provide input, and keep BOS up to date on project activities.							
Wayne Carter, County Administrator	Mecklenburg County	County representative- Attend PMT meetings as needed to monitor progress of project, provide input, and keep BOS up to date on project activities.							

FISCAL MANAGEMENT

The fiscal management and oversight of this project will be provided by the Southside PDC, EMPOWER Broadband, and the Project Management Team (PMT).

The following describes the process for review, approval, and payment of invoices, in addition to remittance procedures related to all project expenditures, including leverage funds:

- 1. All invoices that Empower receives will be paid directly by Empower in the full amount. No remittances will be paid directly to sub-contractors using VATI funding or County matching funds.
- 2. Empower staff will review all invoices for correctness and note in writing on the invoice in which County those costs were incurred. If costs were for multiple Counties, Empower staff will provide a per County cost breakdown for that invoice and sign/initial all invoices confirming they have been approved for submission to Erika Tanner with the Southside PDC.
- 3. Empower staff will be responsible for contacting Dominion Power monthly, or as needed, to confirm the total amount of match they expended and provide that figure to Mrs. Tanner to include in the VATI remittance request.
- 4. Michele Taylor will be responsible for ensuring that Mrs. Tanner receives copies of all approved invoices, checks, proof of canceled checks, and any other requested financial documentation, by the 15th day of each month.

- 5. Mrs. Tanner will review each invoice for eligibility, check for the notation stating which County/Counties the work occurred, make note of the date the invoice was received, and sign/initial all invoices confirming they have been approved for remittance request. For each invoice, Mrs. Tanner will notate the breakdown of VATI funds, County match, and Empower match utilizing the appropriate percentages according to the project budget.
- 6. Mrs. Tanner will prepare all draw remittance requests and budget revisions and submit them through CAMS monthly or as needed.
- 7. VATI funds are distributed on a reimbursement basis. Upon Southside PDC receipt of VATI funds from draw remittances, Mrs. Tanner will request a reimbursement check be issued by the Southside PDC to EMPOWER. Reimbursement will be issued within ten business days of VATI funds posting to the Southside PDC account.
- 8. Mrs. Tanner will maintain a detailed project accounting spreadsheet. It will include the following registers, broken out per County and a separate tab to show the overall project: invoices received from EMPOWER, cumulative remittance requests, expenditures summary, match/leverage summary (Counties, Dominion, Empower), EDI notifications, and reimbursements paid to EMPOWER. Mrs. Taylor and/or Empower staff will track these same budget line items and perform a monthly reconciliation with the SPDC.
- 9. Mrs. Taylor and/or Empower staff will provide a financial report at each PMT meeting to include the total expended VATI and match/leverage funds and any other relevant financial information. This report will be provided to each Counties finance department as well.
- 10. On June 15th of each year, Empower will issue an invoice to each County for expenses incurred in that County to date for that fiscal year. Mrs. Tanner will assist Empower with the necessary documentation needed to facilitate this process. The cumulative total of these invoices will not exceed the County's pledged match.
- 11. Note: Per the U.S. Treasury, all SLFRF-ARPA dollars must be expended by October 31, 2026. County matches, if they are ARPA funds, must be utilized before this date.

DESIGN AND CONSTRUCTION

The following outlines the process for the project's design and construction contract administration which will include surveying, preparing and reviewing bid documents and plans, bidding, change order approval, and local government inspection and oversight.

- 1. EMPOWERs internal and external engineers will design the proposed project area to determine the geographic layout, number of miles, locations passed, overview of materials needed, and estimated total cost.
- 2. An RFP for the scope of work will be sent to at least three vendors for bids.
- 3. Once the bids are received, EMPOWER will review and determine the selection of the vendor based on price, equipment availability, time to market, and reference accounts.

- 4. A vendor will then be selected, notified, and required to sign a contract that includes the description of the work to be performed, price submitted with the bid, and the project time for completion of construction.
- 5. A pre-construction meeting will be held with the applicable members of the PMT and the selected vendor to thoroughly discuss the project, budget, timeline, and the expected outcomes.
- 6. The Contractor shall comply with all Federal, State, and Municipal laws, ordinances, and regulations; building and construction codes applicable to the performance of the work; and wage rate documentation will be provided.
- 7. The contractor shall follow the instructions of government officials regarding maintenance of traffic and protection of the public. The contractor shall obtain a copy of regulations or permit requirements of the appropriate road authorities and make all employees aware of these regulations.
- 8. EMPOWER will maintain inspectors at the job site on a regular basis and/or as required by the VATI contract.

PROJECT OUTCOMES

The Proposed project proposes to achieve 8,828 passings.

The Southside PDC and EMPOWER will utilize the following process to document how the project will achieve its proposed benefit. The Southside PDC will maintain appropriate documentation on file for five years after project closeout.

- 1. The Southside PDC and EMPOWER will obtain information on subscribers and speed package selected, as well as speed validation data, from EMPOWER to ensure that the proposed outcomes have been met and broadband speeds meet VATI criteria.
- 2. The Southside PDC and EMPOWER will retain financial records, supporting documents, statistical records, and all other records pertinent to the VATI award for a period of no less than five years from the date of submission of the final expenditure report.
- 3. The Southside PDC and EMPOWER will make sure that all grant activities described in the contract documents are complete on or before the project end date.

CERTIFYING OFFICER(S):

The following Certifying Officer(s) will be responsible for approving and signing any official grant-related documents or any document related to project implementation.

Deborah Gosney (Grant Administrator), Southside PDC Executive Director, will serve as the Certifying Officer responsible for signing any grant-related documents on behalf of the project partner Counties of Brunswick, Charlotte, Halifax, and Mecklenburg, Virginia.

John Lee (Chief Project Manager), CEO EMPOWER Broadband, Inc, will serve as the Certifying Officer responsible for signing any project implementation-related documents on behalf of the project ISP partner EMPOWER.

Project Implementation Timeline									
Activity	Responsible Entity	Target Date	Status						
Pre-Construction Conference	EMPOWER	6/2023	Planned						
Notice to Proceed (Locality to ISP)	EMPOWER	6/2023	Planned						
Construction Start Date	EMPOWER	7/2023	Planned						
Substantial Completion	EMPOWER	6/2026	Planned						
Final Completion	EMPOWER	12/2026	Planned						
Compliance	EMPOWER/SPDC	monthly	Planned						
Monthly Progress Reports	EMPOWER/SPDC	monthly	Planned						
Achievement of Benefits	EMPOWER/SPDC	12/2026	Planned						
Administrative Close-out	EMPOWER/SPDC	12/2026	Planned						
Six Month Post-Closeout Reporting	EMPOWER/SPDC	6/2027	Planned						
Eighteenth Month Post-Closeout Reporting	EMPOWER/SPDC	6/2028	Planned						

Attachment 7-Timeline/Project Management Plan

Brunswick

		20	122		<u>2023</u>				<u>2024</u>					<u>20</u>	25		<u>2026</u>			
SPDC Project Objectives and					_				_			_	_			_	_			_
<u>Activities</u>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Design				Phase 1			Phase 2			Phase 3			Phase 4							
Obtain Permits																				
OSP Construction Middle Mile																				
Electronics Construction Middle mile																				
OSP Construction last mile																				
Electronics Construction last mile																				
Test and Turn up																				
DROP and ONT install																				
Customer Install																				
Estimated Number of																				
Locations Past						31	31	31	31	31	31	31	31	31	31	31	31	35	28	435
% Buildout Achieved						7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	8%		100%

Mecklenburg

recine in the second se																				
	2022				<u>2023</u>				<u>2024</u>				<u>2025</u>				2026			
SPDC Project Objectives and																				
<u>Activities</u>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Design				Phase 1			Phase 2			Phase 3			Phase 4							
Obtain Permits																				
OSP Construction Middle Mile																				
Electronics Construction Middle mile																				
OSP Construction last mile																				
Electronics Construction last mile																				
Test and Turn up																				
DROP and ONT install																				

Attachment 7-Timeline/Project Management Plan

Customer Install																	
Estimated Number of Locations Past			190	190	190	190	190	190	190	190	190	190	190	190	217	215	2712
% Buildout Achieved			7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	8%		100%

Halifax

Halliax					1								ı							
		20	22			20	123			<u>20</u>	<u>24</u>			20	<u>125</u>			<u>20</u>	<u> 26</u>	
SPDC Project Objectives and																				
<u>Activities</u>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Design				Phase 1			Phase 2			Phase 3			Phase 4							
Obtain Permits																				
OSP Construction Middle Mile																				
Electronics Construction Middle mile																				
OSP Construction last mile																				
Electronics Construction last mile																				
Test and Turn up																				
DROP and ONT install																				
Customer Install																				
Estimated Number of Locations Past						207	207	207	207	207	207	207	207	207	207	207	207	236	225	2945
% Buildout Achieved						7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	8%	8%	100%

Charlotte

		20	<u>122</u>			<u>20</u>) <u>23</u>			<u>20</u>	<u>124</u>			20	<u>25</u>			20) <u>26</u>	
SPDC Project Objectives and Activities	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Design				Phase 1			Phase 2			Phase 3			Phase 4							
Obtain Permits																				
OSP Construction Middle Mile																				

Attachment 7-Timeline/Project Management Plan

Electronics Construction Middle mile												
OSP Construction last mile												
Electronics Construction last mile												
Test and Turn up												
DROP and ONT install												
Customer Install												
Estimated Number of Locations Past			173	173	173	176						695
% Buildout Achieved			25%	25%	25%	25%						100%

Greensville

Greensville					1				1											
		<u>20</u>	022			<u>20</u>	<u>123</u>			<u>20</u>	<u>124</u>			<u>20</u>	<u>25</u>			20) <u>26</u>	
SPDC Project Objectives and																				1
<u>Activities</u>	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Finalize Design				Phase 1			Phase 2			Phase 3			Phase 4							
Obtain Permits																				
OSP Construction Middle Mile																				
Electronics Construction Middle mile																				
OSP Construction last mile																				
Electronics Construction last mile																				
Test and Turn up																				
DROP and ONT install																				
Customer Install																				
Estimated Number of Locations Past						143	143	143	143	143	143	143	143	143	143	143	143	164	161	2041
% Buildout Achieved						7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	8%	8%	100%

GRANT AGREEMENT FIBER TO THE PREMISES BROADBAND SERVICE – SOUTHSIDE PDC / EMPOWER BROADBAND

THIS AGREEMENT ("Agreement") is made and entered as of the TBD DATE, by and between the SOUTHSIDE PLANNING DISTRICT COMMISSION (the "SPDC"), a body corporate and politic of the Commonwealth under the provisions of the Regional Cooperation Act, BRUNSWICK COUNTY, VIRGINIA, a political subdivision of the Commonwealth ("Brunswick County"), CHARLOTTE COUNTY, VIRGINIA, a political subdivision of the Commonwealth ("Charlotte County"), GREENSVILLE COUNTY, VIRGINIA a political subdivision of the Commonwealth ("Greensville County"), HALIFAX COUNTY, VIRGINIA, a political subdivision of the Commonwealth ("Halifax County"), MECKLENBURG COUNTY, VIRGINIA, a political subdivision of the Commonwealth ("Mecklenburg County"; each a "County" and collectively the "Counties"), and EMPOWER BROADBAND, INC., a Virginia stock corporation and a wholly- owned subsidiary of Mecklenburg Electric Cooperative, a Virginia consumer utility services cooperative ("EMPOWER"), for the purpose of providing grant funding from the Virginia Telecommunications Initiative ("VATI"), the Virginia Department of Housing and Community Development ("DHCD"), and the Counties to EMPOWER in an effort to expand and improve broadband services to the citizens of the Counties.

The effective date of this Agreement is the date on which DHCD signs the Grant Agreement, as hereinafter defined.

For their Agreement, the Parties state:

Recitals:

WHEREAS, the SPDC and the Counties have been allocated grant funds from the DHCD VATI Program under its rules and regulations, as well as directly from the ARPA program, the original source of which is funds the United States government granted to the Commonwealth or to the Counties pursuant to the American Rescue Plan Act of 2021, P.L. 117-2, and the ARPA Final Rule, 87 Fed. Reg. 4338–4454, which funds must be fully spent by October 31, 2026; and

WHEREAS, the SPDC and the Counties recognize that in order to attain and maintain a high-quality level of broadband service to the citizens of the Counties, a close working relationship with a private internet provider is desirable and will be made possible in large part through state and federal grant funding opportunities; and

WHEREAS, studies have shown that access to high-quality broadband service stimulates economic activity, creates jobs, promotes industry and trade, increases the values of property, and otherwise serves the lawful purposes of the SPDC and the Counties; and

WHEREAS, the SPDC is a political subdivision of the Commonwealth of Virginia, authorized to carry out the purposes provided herein pursuant to the Regional Cooperation Act, Sections 15.2-4200 *et seq.* of the Code of Virginia, 1950, as amended, and the Counties are political subdivisions of the Commonwealth of Virginia, created by the General Assembly with all powers granted to political subdivisions operating under the traditional county form of

government; and

WHEREAS, EMPOWER is a Virginia stock corporation, with the technical and financial capability to provide telecommunications and information services, including broadband fiber to the home; and

WHEREAS, EMPOWER is a wholly-owned subsidiary of Mecklenburg Electric Cooperative which is also the sole shareholder of EMPOWER Telecom, Inc.; and

WHEREAS, EMPOWER and its Affiliates have issued a request for proposals ("RFP") from construction contractors to construct the Project; and

WHEREAS, in addition to the funds granted to the SPDC by DHCD under the VATI program, the Counties wish to make certain funds available to the SPDC, and the SPDC wishes to make available funds to EMPOWER, for the purposes of supporting EMPOWER's commitment to carry out the Project in the Counties, increasing jobs and employment, enhancing learning opportunities for students, and otherwise expanding the tax base of the Counties while simultaneously assisting in preserving public health in the midst of the COVID-19 crisis. This Agreement sets forth the terms and conditions of this grant, in accordance with the Rule, as amended.

Witnesseth:

NOW THEREFORE, in consideration of the foregoing premises, the mutual benefits, promises, and undertakings of the Parties to this Agreement as set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties covenant and agree as follows:

I. Definitions and Incorporations by Reference.

1.1. For the purposes of this Agreement, the following terms have the following meanings, unless context or the manifest purpose of this Agreement indicate otherwise:

Affiliates means, with respect to EMPOWER, Mecklenburg Electric Cooperative and EMPOWER Telecom, Inc.

Capital Investment means a capital expenditure by EMPOWER and its Affiliates or by a third party with a contract with EMPOWER to carry out work related to the Project as set out in the Grant Agreement. The total expected Capital Investment is not less than \$27535663, composed of \$5,714,437 by EMPOWER and its Affiliates and \$21,821,226 by Dominion Energy.

Change Order means an agreed change to the scope, schedule, or price of the work on the Project. All change orders must be memorialized by a writing signed by an authorized representative of the person or party to be charged thereon.

Commonwealth means the Commonwealth of Virginia.

Contract Period Performance Date means the deadline for Project completion as required in the Grant Agreement, as may be extended pursuant to the Grant Agreement, the VATI Program, or as may otherwise be provided by law.

County Contribution has the meaning given to it in Section 2.3.

Grant or Grant Funds means the \$29,267,615 in funds that DHCD will make available to the SPDC, together with the Counties' Contribution in the total amount of \$1,531,952 that the Counties will make available to the SPDC for a grant to EMPOWER to carry out the Project.

Project means that broadband expansion project generally described in **Exhibit A**. For the removal of ambiguity, it is expressly agreed by the Parties that EMPOWER, its Affiliates, and Dominion will be the ultimate owners of their respective parts of the infrastructure constructed in the Project.

RFP means the request for proposals from construction contractors to construct the Project issued by EMPOWER and its Affiliates on May 16, 2022, a redacted copy of which is attached hereto as **Exhibit D**.

Rule means the ARPA Final Rule, 87 Fed. Reg. 4338–4454, and any FAQs or administrative interpretations thereof. Some, although not all, obligations imposed by the Rule are contained in **Exhibit C.**

Targets means EMPOWER's commitment pursuant to this Agreement to make or cause to be made Capital Investments in the Project of at least \$5,714,437 as of the Contract Period Performance Date. EMPOWER shall also, as of the Contract Period Performance Date, provide documentation to the SPDC and the Counties of (1) the number of takes and the take rate for the Project; and (2) the speeds achieved by the Project. The Project must have available to customers wireline internet meeting or exceeding 100/20 megabit per second scalable to 100/100 service.

Uniform Guidance means the Uniform Guidance for Grants and Agreements, 2 C.F.R. Part 200.

1.2. The following documents are incorporated by reference, and the requirements thereof are hereby adopted and reimposed on the Parties:

Grant Application means the Application to DHCD Submitted Through CAMS: Southside Planning District Commission's Universal Broadband Coverage Initiative.

Grant Agreement means the agreement between the Virginia Department of Housing and Community Development and the SPDC, dated as of [fill in date agreement is entered], for the Project, with DHCD Grant No. VATISF #TBD, a copy of which is attached hereto as **Exhibit E**.

Project Management Plan means the Project Management Plan, Department of Housing and Community Development Virginia Telecommunications Initiative, VATISF

#TBD, dated as of TBD DATE, as amended, a copy of which is attached hereto as **Exhibit F**.

In the event of a conflict among the requirements of the documents incorporated herein by this Section and this Agreement, the provisions of this Agreement, as amended, shall apply.

II. Targets & County Contributions.

- 2.1. EMPOWER and its Affiliates will construct or cause to be constructed and operate the Project in the Counties and make the Capital Investment by the Contract Period Performance Date. The initial construction of the Project must be complete by the Contract Period Performance Date. EMPOWER must diligently use its commercially reasonable best efforts for community outreach and marketing the services at strategically appropriate times, before and following the Contract Period Performance Date. The SPDC and the Counties will make reasonable efforts, consistent with all provisions of law, to assist EMPOWER in meeting these goals. The Parties understand, however, that the number of customers who choose to subscribe is beyond the Parties' control and is expressly not an item of consideration for this Grant.
- 2.2. The Counties shall make County Contributions totaling \$1,531,952 to the Grant Funds in the following amounts:

2.2.1. Brunswick County: \$47,952

2.2.2. Greensville County: \$859,000

2.2.3. Halifax County: \$325,000

2.2.4. Mecklenburg County: \$300,000

County Contributions will be managed and spent as provided in the Project Management Plan.

- 2.3. Grant disbursements shall be made monthly within 30 days of submission by EMPOWER to the SPDC of detailed invoices verifying expenditure of funds and delivery of goods, services, or construction work in furtherance of the Project. In the event of a dispute concerning any portion of an invoice, timely disbursement shall be made for the undisputed portion of such invoice. Without a Change Order, the total amount of all Grant Funds disbursed shall be not more than \$29,267,615
- 2.4. Monthly reporting and totals of Grant Funds shall be as set forth in the Grant Agreement.
- 2.5. The Parties will schedule monthly project management team meetings to discuss, without limitation, payment, progress of the Project, or relations with EMPOWER's contractor(s) and contractor's(s') management of its/their subcontractors. Such meetings shall be at a mutually convenient time and may be held by electronic means or teleconference. Such meetings may be canceled by mutual agreement if there is insufficient information to merit a meeting.
 - 2.6. In the event the Grants are not made due to an event of non-appropriation or

otherwise, EMPOWER's obligations for performance under this Agreement shall be void and of no force and effect.

III. Application of Grant Funds & Reporting.

- 3.1. EMPOWER agrees to apply the Grant Funds solely and exclusively to the payment, or reimbursement for the payment, of work on the Project. EMPOWER further agrees to provide such receipts, vouchers, statements, bills of sale, or other evidence of the actual payment of the same on a monthly or quarterly basis as are required by the Grant Agreement.
- 3.2. EMPOWER is responsible for compliance with the applicable provisions of federal, state, and local labor relations guidelines and requirements applicable under the Rule. The Rule suggests compliance with prevailing wage requirements or use of project labor agreements as ways of complying with the requirements of the Rule; however, the manner of compliance is in the discretion of EMPOWER. EMPOWER shall be solely responsible for compliance and certification thereof as provided in the Rule. If EMPOWER chooses to meet its requirements by meeting prevailing wage requirements, it shall use the wage scales provided by the U.S. Department of the Treasury for highway construction trades applicable in the Counties unless otherwise provided by law. Unless otherwise required by the Rule, reporting of labor need not be made to the U.S. Department of Labor or the Virginia Commissioner of Labor of Industry; *provided*, however, that accurate records of wages and benefits must be kept so as to enable the SPDC and the Counties to audit compliance as provided in Section 5.1.
- 3.3. As more particularly described in the RFP, each construction contractor employed in the accomplishment of any of the Project shall be required in the construction contract to furnish a performance bond and a payment bond. Each contractor shall be required to maintain during the construction period covered by the particular construction contract builder's risk insurance, workers' compensation insurance, public liability insurance, property damage insurance, and vehicle liability insurance in accordance with EMPOWER's policies and procedures set forth in the RFP. SPDC and the Counties find that this requirement adequately protects the federal interest in the Grant Funds.
 - 3.4. Retainage shall be as set forth in the Grant Agreement.
- 3.5. EMPOWER shall provide monthly progress reports as set forth in the Grant Agreement. Such progress reports will be provided monthly. For the purposes of verifying the accuracy of reports, and for no other purpose, EMPOWER hereby waives its protections under Section 58.1-3 of the Code of Virginia, 1950, as amended, and authorizes the Commissioners of the Revenue for each County to provide verification to the SPDC and the Counties from their records; provided, however, that such disclosure shall not waive the protections of Section 58.1-3 as to any other person, nor authorize the SPDC and the Counties to disclose such information to any other person other than DHCD, the Virginia Department of Accounts, the U.S. Department of the Treasury, and other agencies authorized by law to audit or inspect the Project. Further, EMPOWER grants the SPDC and the Counties the right to inspect any site at which work on the Project is or has been carried out or where materials are or have been stored during the term of this Agreement in order to verify work for which an invoice has been submitted.

- 3.6. EMPOWER may apply for a Change Order at any time. A Change Order shall become effective upon its approval by the SPDC, the Counties, and DHCD; but no County shall be required to approve any change order, and no County shall have any liability by reason of its failure to approve a change order.
- 3.7. DHCD, in furtherance of the VATI grant, and the Counties, in furtherance of the obligations imposed on them by the Rule and the Uniform Guidance, are expected to conduct Compliance Reviews. EMPOWER must make all records available upon their request.
- 3.8. If the sum of the Grant Funds and the EMPOWER match are insufficient cost of the total of all the Project, or regulatory burdens materially increase costs, SPDC will facilitate discussions with the Counties involved, DHCD, and EMPOWER to determine the best course of action, including but not limited to seeking additional grant or loan funds, value engineering, changes to the scope of the Project, or extension of timelines, which additional costs or time shall be subject to an equitable change order or a claim as provided in Section 5.5.

IV. Representations of EMPOWER.

- 4.1. EMPOWER has familiarized itself with the nature and extent of this Agreement and with all local conditions and state, federal, and local laws, ordinances, rules, and regulations, including but not limited to the rules and regulations of the VATI program, the Rule, and the Uniform Guidance.
- 4.2. EMPOWER shall maintain a financial management system and financial records and shall use funds received pursuant to this Agreement in accordance with this Agreement and all applicable laws. EMPOWER shall maintain detailed, itemized documentation and records of all income received and expenses incurred pursuant to this Agreement.
- 4.3. Any item of expenditure by EMPOWER under the terms of this Agreement which is determined by auditors, investigators, and other authorized representatives of SPDC or the Counties, the SPDC's or the Counties' Independent Auditors, the U.S. Government Accountability Office or the Comptroller General of the United States, or DHCD or the Virginia Auditor of Public Accounts, or other authorized governmental authority to be improper, unallowable, in violation of federal or state law or the terms of this Agreement, or involving any fraudulent, deceptive, or misleading representations or activities of EMPOWER, must be repaid to SPDC by EMPOWER within 30 days after notification of a final non-appealable determination from funds other than those provided by SPDC and the Counties under this Agreement or any other agreements between EMPOWER and the SPDC and/or the Counties. This provision shall survive the expiration or termination of this Agreement and is intended to be congruent with the repayment provisions of the Grant Agreement.
- 4.4. EMPOWER's obligations to the SPDC and the Counties under this Agreement shall not terminate until all closeout requirements are completed to the satisfaction of the SPDC and the Counties. Such requirements shall include, without limitation, submitting final reports to the SPDC and the Counties and providing any closeout-related information requested by SPDC and the Counties by the deadlines specified by the SPDC and the Counties.
 - 4.5. EMPOWER shall provide SPDC and the Counties with broadband service and

coverage data and information ("Service Territory Data") in the time and formats established by DHCD in its Internet Service Provider Territory Data Submission Guidelines ("Data Submission Guidelines") pursuant to Section P of Item 114 of Chapter 552, 2021 Acts of Assembly, 2021 Special Session I (the "Budget Amendment"). Service Territory Data shall be submitted to SPDC and the Counties simultaneously with its being provided to the Commonwealth of Virginia as required by DHCD.

V. Miscellaneous.

- 5.1. <u>Audits.</u> EMPOWER must allow the SPDC, the Counties, their auditors, and other persons authorized by them to inspect and copy its books and records upon reasonable notice during regular business hours for the purpose of verifying that monies provided to EMPOWER pursuant to this Agreement were used in compliance with this Agreement and all applicable provisions of federal, state, and local law. EMPOWER will retain all such records for not less than five years after the Contract Period Performance Date.
- 5.2. <u>Permits and Compliance With Laws.</u> EMPOWER will obtain or cause to be obtained, in a timely manner, all required permits, licenses, and approvals, and will meet all requirements of all local, state, and federal laws, rules and regulations which must be obtained or met in connection with construction of the Project.
- 5.3. <u>Relationship of the Parties.</u> Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture, or other form of joint enterprise, employment, or fiduciary relationship between the Parties. Neither SPDC and the Counties, for their part, nor EMPOWER, shall have any right, power, or authority to act or create any obligation, express or implied, on behalf of the other Party.
- 5.4. <u>Default and Termination.</u> In general, defaults or potential defaults shall be discussed and informally resolved at monthly progress meetings. In the event of a default of a material term of this Agreement that has not been able to be so resolved following discussion at one or more progress meetings, upon an event of non-appropriation (either by the Commonwealth or one of the Counties), or the bankruptcy, insolvency, a general assignment for the benefit of creditors, or similar action by a Party, the non-defaulting Party shall give prompt written notice to the chief administrator of the defaulting Party at that person's principal office. The non-defaulting party shall take prompt, reasonable steps to remedy any such default. In the event the defaulting party has not taken prompt, reasonable steps to remedy such default within 30 days, or, if the default is the result of an event of non-appropriation or petition for bankruptcy, has not identified reasonably satisfactory alternative sources of funds, or voluntarily dismissed or vigorously controverted such petition, then the non-defaulting party may take any other action to protect its interests as it deems appropriate, including seeking remedies at law or in equity.

5.5. Limitation on Damages; Time for Asserting Claim.

- 5.5.1. The Parties hereby expressly waive any right to claim or recover consequential, special, punitive, lost business opportunity, lost productivity, field office overhead, general conditions costs, or lost profits damages of any nature or kind.
 - 5.5.2. Prior to asserting any claim for damages of any kind or nature, EMPOWER

must first provide the SPDC and the Counties with written notice of its claim, the facts and circumstances surrounding and giving rise to the claim, and the total amount of damages sought by the claim. EMPOWER will exert its commercially reasonable best efforts to provide such notice within ninety (90) calendar days of its becoming aware of the facts and circumstances giving rise to the claim.

5.6. <u>Dispute Resolution.</u>

- 5.6.1. Any claim, controversy, or dispute between the parties, their agents, employees, or representatives shall be resolved first by negotiation between authorized personnel from each party duly authorized to execute settlement agreements. Upon mutual agreement of the parties, the parties may invite an independent, disinterested mediator to assist in the negotiated settlement discussions.
- 5.6.2. If the parties are unable to resolve the dispute within thirty (30) days from the date the dispute was first raised, then such dispute may only be resolved in a court of competent jurisdiction in compliance with the Choice of Law provisions of this Agreement.
- 5.7. EMPOWER shall secure insurance coverage through an insurance company or companies duly licensed and authorized to conduct insurance business in Virginia which insures the liabilities and obligations specifically assumed by EMPOWER in this Section.

EMPOWER shall furnish to the SPDC and the Counties an accompanying certificate of insurance and accompanying endorsements in amounts not less than as follows:

• Employers Liability Limits

Workers Compensation: Statutory

■ Bodily Injury by Accident: \$2,000,000

■ Bodily Injury by Disease: \$2,000,000 policy limit

• General Liability: \$2,000,000 per occurrence

The obligations of this Section shall survive termination of this Agreement.

5.8. Force Majeure. Neither SPDC and the Counties, for their part, nor EMPOWER, shall be liable or responsible to the other party, or be deemed to have defaulted or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations to make payments to another party hereunder), when and to the extent that such failure or delay is caused by or results from acts beyond the impacted party's ("Impacted Party") control, including, without limitation, the following force majeure events ("Force Majeure Events"): (a) acts of God; (b) flood, fire, earthquake, winter storm, hurricane, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) government order, law, or actions; (e) embargoes or blockades in effect on or after the date of this Agreement; (f) national or regional emergency; (g) strikes, labor stoppages or slowdowns, or other industrial disturbances; (h) telecommunications breakdowns, power outages

or shortages, lack of warehouse or storage space, inadequate transportation services, or inability or delay in obtaining supplies of adequate or suitable materials; and (i) other events beyond the control of the Impacted Party. An Impacted Party shall be entitled to an equitable change order, subject to final approval by DHCD, in the event of a Force Majeure Event.

If a party's performance of any part of this Agreement is prevented, hindered, or delayed due to a Force Majeure Event, then that party must give the other party, within ten (10) days after such cause begins, written notice including a statement of the facts forming the basis for claiming the Force Majeure Event; and when the cause ends, the excused party shall, within ten (10) days, notify the other.

- 5.9. Attorney's Fees and Costs. In the event it becomes necessary for a party to this Agreement to retain an attorney to enforce any of the terms or conditions of this Agreement or to give any notice required herein, then all parties shall bear their own costs and the American Rule shall apply. In the event the SPDC sues or is sued by EMPOWER in relation to this Agreement, the Counties agree to pay its reasonable attorney's fees and costs related to such litigation to the extent such payment cannot be made out of the Grant Funds. In the event the litigation relates to the Project generally, then all the Counties will split fees as follows: Brunswick County: 4.9%; Charlotte County: 7.9%; Greensville County: 23.1%, Halifax County: 33.4%; Mecklenburg 30.7%. In the event the litigation affects fewer than all of the Counties, then the Counties affected shall split fees in proportion to the percentages above. By way of example only, if litigation fees were incurred relating solely to construction in Halifax and Brunswick Counties, then Halifax County's share would be 33.4% / (33.4% + 4.9%) = 87.2%, and Brunswick County's share would be the remainder of 12.8%.
- 5.10. Subject to Appropriation. Any obligation of a County to pay, set aside, or otherwise appropriate funds for the performance of this Agreement shall be construed to be current accounts that are subject to appropriation for work performed or services rendered, and shall not be construed to be unconditional obligations in derogation of Article VII, § 10 of the Virginia Constitution. The obligations of the SPDC under this Agreement, and the obligations of the SPDC relating to passing through VATI grant funds, are not general obligations of the SPDC but are limited obligations payable solely from revenues and receipts derived by the SPDC from the Counties pursuant to this Agreement or from the Commonwealth under the VATI grant. The obligations of the SPDC and the Counties hereunder shall not be deemed to constitute a debt or pledge of the faith and credit of the Commonwealth of Virginia or any political subdivision thereof, including the SPDC and the Counties.
- 5.11. <u>Integration and Modification</u>. This document, including the exhibits hereto and documents incorporated herein, contains the entire agreement between the parties and no statements, promises or inducements made by either party or agents of either party not contained in this written Agreement may be considered valid or binding. This Agreement may not be modified except by written agreement signed by all parties.
- 5.12. <u>No Assignment.</u> EMPOWER may not assign its rights, including the right to Grant payments, or any other rights or duties arising hereunder, without the prior written consent of the SPDC and the Counties.
 - 5.13. No Third-Party Beneficiary. The terms and provisions of this Agreement are

intended solely for the benefit of each party and their respective successors and assigns. It is not the parties' intent to confer third-party beneficiary rights upon any other person or entity.

- 5.14. <u>Choice of Law.</u> This Agreement shall be governed and construed in accordance with the laws of the Commonwealth of Virginia without regard to conflict of law provisions. The Parties agree to submit to the exclusive jurisdiction of the Circuit Courts of Mecklenburg County, Charlotte County, Halifax County, Greensville County, or Brunswick County.
- 5.15. <u>Non-Waiver</u>. Failure to insist on strict compliance with any of the terms or conditions of this Agreement shall not be construed to be a waiver thereof and does not limit another party's right to enforce such term or conditions or to pursue any available legal or equitable rights in the event of any subsequent default or breach.
- 5.16. <u>Severability.</u> If any portion of this Agreement is held to be void or unenforceable, the balance of the Agreement shall continue in effect.
- 5.17. <u>Counterparts.</u> This Agreement may be executed in any number of counterpart copies, each of which when executed and delivered shall be deemed to be an original and all of which counterparts when taken together shall constitute a single instrument. Facsimile, electronic, or scanned signatures shall be binding as originals in accordance with the Virginia Uniform Electronic Transactions Act, Va. Code §§ 59.1-479, *et seq.*

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day, month, and year first stated in this Agreement:

Signatures on following pages

	Ву:
Date	Deborah Gosney Executive Director, SPDC
 Date	By: John Lee
Date	President and CEO, EMPOWER
	Ву:
Date	Leslie Weddington Brunswick County Administrator
	By:
Date	Charlette Woolridge Greensville County Administrator
	Divi
Date	By: Dan Witt Charlotte County Administrator
	Ву:
Date	Scott Simpson Halifax County Administrator
	Ву:
Date	Wayne Carter Mecklenburg County Administrator

Exhibit A

Specifications & Schedule

The specifications and schedule are as set forth in the Project Management Plan.



Exhibit B

Required Certifications and Disclosures

Certification of Eligibility & Non-Collusion Statement

My signature below certifies that this contract is not the result of, or affected by, any unlawful act of collusion with another person or company engaged in the same line of business or commerce, or any act of fraud punishable under the Virginia Governmental Frauds Act (§§ 18.2-498.1, *et seq.* of the Code of Virginia, 1950, as amended) or the False Claims Act (31 U.S.C. § 3729). I also understand and agree to comply with the provisions of the Virginia Conflict of Interests Act (§§ 2.2-3100, *et seq.*) and the provisions of the Virginia Public Procurement Act relating to Ethics in Public Contracting (§§ 2.2-4367, *et seq.*). Furthermore, I understand that fraud and unlawful collusion are crimes under the Virginia Governmental Frauds Act and the False Claims Act, as well as laws against bid rigging (§§ 59.1-68.6, *et seq.*), the Virginia Antitrust Act (§§ 59.1-9.1, *et seq.*), and Federal laws regarding the same matters. They can result in fines, prison sentences, and civil damages awards.

Furthermore, I hereby certify that (i) all information submitted to SPDC, the Counties and DHCD in connection with this Agreement or the application for funds to fund this Agreement and/or in connection with any contract or agreement that may arise in the future from such application are true and accurate in all material respects, (ii) no principal, shareholder, director, officer, member, manager or other employee of EMPOWER with managerial control or responsibility over EMPOWER or over any significant aspect of its operations in the Commonwealth were employed (a) by DHCD and involved in the evaluation and scoring of applications received for consideration of award within one year prior to the date of the announcement of the project awards, or (ii) by the Governor's administration during a period of two years prior to the date of execution of this Agreement.

I further certify that my firm is not a debarred entity under the System for Award Management (SAM) or by any agency or political subdivision of the Commonwealth of Virginia.

Name of Firm or Individual:	
Address:	
Signature:	
Name (type/print):	
Title:	
Telephone:	Email:
FFIN:	Date:

Lobbyist Disclosure

The undersigned certifies, to the best of his or her knowledge or belief, that:

- 1. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the award of any federal contract, the making of any federal grant, the making of any federal loan, the modification of any federal contract, the entering of any cooperative agreement, or the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- 2. If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the federal contract, grant, loan, or cooperative agreement, the undersigned must complete and submit Standard Form LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- 3. The undersigned shall require that the language of this certification be included in the award documents for all subawards of all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. The certification is a material representation of the fact on which reliance was placed is a prerequisite for making or entering into the transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned shall require that the language of this certification is included in the award documents for all subawards of all tiers (including subgrants, contracts under grants, cooperative agreements, and subcontracts) and that all subrecipients shall certify and disclose accordingly.

Organization	
Name of Representative	Title of Representative
Signature of Representativ	

Exhibit C

American Rescue Plan Act Funds Special Terms and Conditions

- **A. Nondiscrimination.** In performing this contract, the Contractor shall not exclude any person from participating in, deny them a benefit of, or discriminate against them because of race, color, religion, national origin, sex, disability, or age. See 42 U.S.C. §§ 3601, et seq.; 42 U.S.C. §§ 6101, et seq.; 29 U.S.C. § 794; 42 U.S.C. § 12132; and 49 U.S.C. § 5332. The Contractor also agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. See 29 U.S.C. § 623; 42 U.S.C. § 12101. In addition, the Contractor agrees to comply with applicable federal implementing regulations regarding the subject matter of this clause.
- **B. Recycled Products.** The Contractor shall comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.
- C. Clean Air Act (42 U.S.C. §§ 7401–7671q) and the Federal Water Pollution Control Act (33 U.S.C. §§ 1251–1387), as amended. Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. §§ 7401–7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. §§ 1251–1387). Violations of these standards by the Contractor shall be reported to the U.S. Department of the Treasury and the Regional Office of the Environmental Protection Agency (EPA).
- **D. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment.** Contractor certifies that it will not use equipment, services, or systems produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company, or any subsidiary or affiliate of such entities.

Exhibit D Redacted RFP



Exhibit E DHCD Grant Agreement [to come from DHCD]

Exhibit F
Project Management
Plan



PHASE ONE MEMORANDUM OF UNDERSTANDING

This Phase One Memorandum of Understanding (this "Memorandum") is made effective as of July 6, 2021, (the "Effective Date"), by and among Virginia Electric and Power Company d/b/a Dominion Energy Virginia, a Virginia public service corporation ("Dominion"), Empower Broadband, Inc., a Virginia corporation ("Empower"), and a wholly-owned subsidiary of Mecklenburg Electric Cooperative, a Virginia electric cooperative ("MEC"), and each of the participating counties who subsequently join this Memorandum in the manner set forth herein ("Participating Counties"). Dominion and Empower are collectively referred to as the "Organizing Parties." The Organizing Parties and the Participating Counties are each a "Party" and are collectively referred to as the "Parties".

RECITALS

- A. Pursuant to the Virginia Code § 56-585.1:9, effective July 1, 2019 (the "<u>Pilot Statute</u>") the Commonwealth of Virginia is seeking to expand broadband services into unserved areas of the Commonwealth. The Pilot Statute further permits electric utilities to pursue pilot programs with broadband providers and local counties and municipalities to facilitate such expansion.
- B. Dominion and Empower have explored the feasibility of Dominion deploying middle mile service to facilitate Empower in extending last-mile service to unserved populations throughout the communities of Virginia and have identified several counties as viable candidates based on the legislative requirements for such a pilot program.
- C. The Organizing Parties believe their partnership as set forth herein (the "<u>Initiative</u>") can dramatically expand broadband access to presently unserved areas throughout Virginia and are inviting Brunswick, Charlotte, Greensville, Halifax, Mecklenburg and Pittsylvania Counties ("Invited Counties"), to join this Memorandum and become Participating Counties.
- D. The Parties will pursue a relationship whereby: (i) pursuant to the Pilot Statute, Dominion would construct a fiber route that maximizes the number of unserved areas to be served by Empower within each Participating County, (ii) Dominion will leverage the additional fiber installed along the route to connect devices that may not have had fiber connectivity under the original plan pursuant to the Grid Transformation and Security Act, (iii) Empower will collaborate with and invest in each Participating County and use the additional Dominion fiber capacity to serve broadband end users in unserved locations in each Participating County, and (iv) each Participating County will share relevant information with the Organizing Parties and collaborate with the Organizing Parties to advance the Initiative. The efforts of the Parties herein in each such Participating County shall be referred to as a "Project", and collectively the "Projects").
- E. It is the intention of the Parties that the Initiative will result in the deployment of a fiber-to-the-premises last-mile broadband network to offer service to all locations within each Participating County that are unserved as of the date hereof. The Parties acknowledge and agree that the specific details and characteristics of each Project will be analyzed and refined as the Initiative proceeds.
- F. The Organizing Parties have divided the Initiative into three phases.

NOW, THEREFORE, the Parties hereby agree as follows:

1. PROCEDURE TO BECOME A PARTICIPATING COUNTY

Any county that is invited to join the Initiative by the Organizing Parties shall have until July 15, 2021 to return a counterpart signature page to this Memorandum to the Organizing Parties; provided the Organizing Parties may extend this deadline for good cause if such extension will not materially delay the Initiative. Upon acceptance of the counterpart signature page by the Organizing Parties, such county shall become a Participating County.

2. INFORMATION SHARING AND COORDINATION; NON-SOLICITATION

- a) Each Participating County and each Organizing Party agrees to share with the Organizing Parties such information as it has in its possession related to broadband deployment and availability that may be useful to the Organizing Parties in conducting their analysis or otherwise facilitate the Initiative.
- **b)** Empower will serve as the central conduit for all information sharing activities and will be responsible for overall coordination of the Initiative.
- c) The Parties will coordinate any communication releases to the public, and all announcements are subject to the prior written consent of Dominion and prior written or verbal consent of all Parties with the final release being handled by Empower.
- **d)** Notwithstanding anything to the contrary hereunder, in no event does this sharing of information agreement require any Party to disclose confidential or proprietary information not otherwise authorized for release to any Party or Parties.
- e) Dominion shall not actively market any use of its additional fiber in unserved areas of the Participating Counties directly to a known competitor of Empower for the entire term of this Memorandum, plus a period of three (3) years after the effective date of the Definitive Agreements.

3. PHASE ONE TIMEFRAME AND ACTIVITIES

a) The Parties anticipate that Phase I of the Initiative will continue until approximately September 14, 2021.

b) During Phase I:

- i. The Organizing Parties will conduct community and stakeholder engagement activities in each Participating County.
- ii. The Organizing Parties will collaborate to develop preliminary plans and design criteria that: (i) are consistent with the Pilot Statute, and (ii) facilitate the extension of broadband availability to as many presently unserved locations as reasonably possible.
- **iii.** Empower will perform a last-mile feasibility study ("<u>Initial Feasibility Study</u>") for the Project within each Participating County.
- iv. Empower will prepare a preliminary financial analysis for the Project within each Participating County.
- v. The Participating Counties, and each Organizing Party, as applicable, will agree to support an application for one or more grant programs ("Phase I Grants") to partially offset the cost of the Initial Feasibility Study and financial analysis. Empower will coordinate and oversee the development and submission of applications for Phase I Grants. The Parties anticipate that the Phase I Grants will not require any local matching of funds, However, such matches are encouraged to aid in the overall advancement of Phase I and all following Projects.

c) At the Conclusion of Phase I:

- i. Empower, in coordination with Dominion, will present the results of the Initial Feasibility Study and financial analysis to each Participating County.
- ii. Empower will identify the cost of Proceeding to Phase II for each Participating County and identify grants and other sources of potential funding to reduce or eliminate each Participating County's out-of-pocket costs to proceed.

iii. Each Participating County will decide whether or not to continue to Phase II. Counties that elect to withdraw from the Initiative at the conclusion of Phase I will have no further rights or obligations under this Memorandum.

4. PHASE TWO TIMEFRAME AND ACTIVITIES

a) The Parties anticipate that Phase II of the Initiative will commence upon the conclusion of Phase I and continue until approximately July 1, 2022.

b) During Phase II:

- i. Dominion will prepare a petition (the "Petition") under the Pilot Statute to the Virginia State Corporation Commission (the "Commission") seeking approval of the Projects that are then included in the Initiative. Empower will serve as the nongovernmental internet service provider pursuant to the Pilot Statute. Empower and each of the other Parties will provide such information and assistance to Dominion as it may reasonably request to advance the Initiative and will commit to continuing to be involved in the Petition until and after approval of the Petition is received. The Parties agree that implementation of each Project shall be contingent upon Commission approval of such Project on terms and conditions approved by Dominion that are not materially adverse to Dominion.
- ii. Empower will complete preliminary last-mile designs for each Project based upon the proposed Dominion middle-mile infrastructure. Such last-mile designs will be tailored to maximize each Project's eligibility for all available state and federal grant, loan, loan guarantee, and other support mechanisms (collectively, "Public Support Mechanisms").
- iii. Empower will prepare detailed financial plans for each Project. Each financial plan will address initial capital investment and ongoing operational expenses, and will provide more than one indicative approach for funding each Project through a combination of private capital, Public Support Mechanisms and contributions from Participating Counties.
- **iv.** The Participating Counties, and each Organizing Party, as applicable, will agree to support an application for one or more grant programs ("<u>Phase II Grants</u>") to partially offset the cost of the activities to be conducted during Phase II. Empower will coordinate and oversee the development and submission of applications for Phase II Grants.
- **v.** Empower will coordinate and oversee the development and submission of applications for all available Public Support Mechanisms to fund each Project within the Initiative.

c) At the Conclusion of Phase II:

- i. Empower will present the last mile design and financial plans to each Participating County.
- ii. Each Participating County will decide whether or not to continue to Phase III. Counties that elect to proceed to Phase III will enter into negotiations with Empower for one or more binding mutual definitive agreements ("<u>Definitive Agreements</u>"), setting forth their respective commitments and obligations and such particulars as the parties thereto may deem appropriate. Counties that elect to withdraw from the Initiative at the conclusion of Phase II will have no further obligations under this Memorandum.

5. EXPENSES

The Parties understand that various costs will be incurred in relation to activities contemplated herein. The Parties understand that regardless of which Party incurs such costs, none of the Parties herein shall be responsible for reimbursement of expenses to any of the others, unless such reimbursement is to be funded by a Phase I Grant or Phase II Grant, or otherwise agreed to in the Definitive Agreements.

6. GOOD FAITH COMMITMENT TO INITIATIVE

a) Each Participating County agrees that, for so long as it is a Party to this Memorandum, it shall not participate in any activity or course of conduct that is

inconsistent with or competitive to the Initiative, and that it will devote its broadband-related attention and resources to the Initiative.

b) The Parties understand and agree that, except as provided in the next sentence, this Memorandum (i) constitutes only a statement of intentions, (ii) does not reflect all matters upon which Definitive Agreements must be reached in order for the transactions contemplated hereby to be consummated, (iii) binding obligations with respect to a Project will only result from the execution of one or more Definitive Agreements and subject to the terms and conditions stated therein, and (iv) does not obligate the Parties to enter into any Definitive Agreement relating to any Project. This Memorandum is not intended to be binding, other than Paragraphs 5,6, 8 and 9(a) and (e).

7. TERMINATION

Any party may terminate its participation in this Memorandum at any time, with or without cause, upon written notice to the other Parties with at least ten (10) days prior notice. In addition, this Memorandum shall terminate and be of no further force and effect if the Commission rejects the petition.

8. LIMITATION OF LIABILITY

No Party shall be liable to the others in contract, tort, or otherwise, for any claims, liabilities or losses arising out of this Memorandum or alleged to result from the failure of the other Party to enter into any Definitive Agreements. The Parties hereby waive, in advance, any claims (whether such claims are based on breach of contract, tort, equity or any other theory) for the failure for any reason to enter into the Definitive Agreements. In no event shall any Party be liable to the other for any incidental, indirect, special, punitive or consequential damages (including without limitation damages for lost profits).

9. GENERAL

a) Governing Law.

This Memorandum shall be governed in all respects by the laws of the Commonwealth of Virginia.

b) Amendments.

No modification, amendment or waiver of any of the provisions of this Memorandum will be binding without the written consent of the Parties hereto.

c) Binding Effect; Assignment.

This Memorandum will inure to the benefit of and be binding upon each of the Parties hereto and their respective successors and permitted assigns to the extent provided in Section 6, but in no respect shall give rise to any third-party beneficiary rights or claims. No Party may assign any of its rights, interests, or obligations hereunder without the prior written consent of the other Parties, except that any of the Organizing Parties may assign this Memorandum to an affiliated entity upon written notice to the other Parties.

d) Counterparts.

This Memorandum may be executed in counterparts, all of which for all purposes shall be deemed to be an original and all of which shall, taken together, constitute one and the same instrument.

e) Relationship of Parties.

Nothing in this Memorandum shall be deemed to constitute, create, give effect to, or otherwise recognize a joint venture, partnership, or formal business entity of any kind.

f) Notices.

All notices, requests and other communications hereunder shall be in writing and delivered by hand, by nationally-recognized delivery service that guarantees overnight delivery, or by first-class registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to Dominion:

Dominion Energy Virginia 600 Canal Street Richmond, Virginia 23219 Attention: Director, Electric Distribution Grid Solutions

with a copy to:

Dominion Energy Services, Inc. 120 Tredegar Street Richmond, Virginia 23219 Attention: Deputy General Counsel – State Regulatory Fax: (804) 819-2677

If to Empower:

Empower Broadband Attention: President and CEO P.O. Box 325 Chase City, VA 23924

If to a Participating County, to the address set forth on such Participating County's counterpart signature page to this Memorandum.

Any Party may change its address at any time upon notice to the other Parties.

IN WITNESS WHEREOF, the Parties have executed this Memorandum as of the Effective Date.

VIRGINIA ELECTRIC AND POWER COMPANY D/B/A DOMINION ENERGY VIRGINIA

Augustus Johnson IV (Jul 6, 2021 16:51 EDT)

Name: Augustus Johnson

Title: Director – Electric Distribution Grid Solutions

EMPOWER BROADBAND, INC.

John C. Lee, Jr.
John C. Lee, Jr. (Jul 6, 2021 18:01 EDT)

Name: John C. Lee, Jr.
Title: President and CEO

[SIGNATURE PAGE TO PHASE ONE MEMORANDUM OF UNDERSTANDING]

IN WITNESS WHEREOF, the Counties named below have executed this Memorandum as of the Effective Date.

CITY OF EMPORIA

William E. Johnson, III William E. Johnson, III (Jul 23, 2021 14:56 EDT)

Name: William E. Johnson, III, MBA

Title: City Manager City of Emporia 201 South Main Street Emporia, Virginia 23847

MECKLENBURG COUNTY

H. Wayne Carter III
H. Wayne Carter III (Jul 20, 2021 09:18 EDT)

Name: H. Wayne Carter, III Title: County Administrator Mecklenburg County, Virginia

P.O. Box 307 Boydton, VA 23917

GREENSVILLE COUNTY

Gary L. Cifers ary L. Ciffrs (Jul 20, 2021 12:01 20T)

Name: Gary L. Cifers, M.S. Ed. Title: Acting County Administrator

Greensville County

1781 Greensville County Circle

Emporia, Virginia 23847

HALIFAX COUNTY

Scott R. Simpson
Scott R. Simpson (Aug 5, 2021 17:52 EDT)

Name: Scott R. Simpson, P.E., MPA

Title: County Administrator

Halifax County, VA

1050 Mary Bethune Street

Halifax, VA 24558

IN WITNESS WHEREOF, the Counties named below have executed this Memorandum as of the Effective Date.

BRUNSWICK COUNTY

Leslie Weddington

Name: Leslie Weddington

Title: Interim County Administrator

228 N. Main St PO BOX 399

Lawrenceville, Va 213868

Attachment 9- VATI FUNDING SOURCES TABLE

Please fill in the chart below with a description of the project funding source (local, federal, state, private, other), the amount from that source, the percentage of total project funding that source represents, and a description of the current status of the funds (pending, secured, etc.).

Source	Amount	%	Status
REQUESTED VATI	\$29,267,615	50%	Pending
DOMINION ENERGY MATCH	\$ 21,821,226	37%	SECURED
EMPOWER MATCH	\$5,714,437	10%	SECURED
BRUNSWICK CO. MATCH	\$ 47,952	.004%	SECURED
HALIFAX CO. MATCH	\$ 325,000	.006%	SECURED
MECKLENBURG CO. MATCH	\$300,000	.005%	SECURED
GREENSVILLE CO. MATCH	\$859,000	.015%	SECURED
TOTAL	\$ 58,335,230	100 %	

HEADQUARTERS

P. O. Box 2451 Chase City, VA 23924

Phone: 434-372-6100/Fax: 434-372-6101

CHASE CITY DISTRICT

P. O. Box 2451 Chase City, VA 23924

Phone: 434-372-6200/Fax: 434-372-6201



www.meckelec.org

SAFETY FIRST!

EMPORIA DISTRICT

P. O. Box 427 Emporia, VA 23847

Phone: 434-634-6168/Fax: 434-348-7100

GRETNA DISTRICT

P. O. Box 617 Gretna, VA 24557

Phone: 434-656-1288/Fax: 434-656-9200

August 23, 2022

Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing and Community Development ATTN: Virginia Telecommunications Initiative 600 East Main Street, Suite 300 Richmond, VA 23219

Dear Dr. Holmes,

This letter is to document Mecklenburg Electric Cooperative's (MEC)/EMPOWER Broadband's in-kind match for the Virginia Telecommunications Initiative Last Mile Grant Application submitted by MEC and our affiliate EMPOWER Broadband, INC in partnership with the Southside Planning District Commission.

MEC and EMPOWER Broadband, INC. will provide funding to expand our fiber optic network; these investments are being presented for the in-kind match for universal coverage in this five county regional application. The project area, MEC's match, and the VATI request are listed below.

Project Areas
Brunswick County
Halifax County
Mecklenburg County
Charlotte County (southern portion)
Greensville County

MEC/EMPOWER Match \$5,714,436.85 VATI Request-50% \$29,267,614.83

The Cooperative has approved these expenditures as in-kind matching funds upon a successful grant award.

Respectfully,

John C. Lee, Jr. President and CEO

Mecklenburg Electric Cooperative



INSTRUCTION LETTER

August 19, 2020

Ms. Carol Jones, Mecklenburg Electric Cooperative 11633 Hwy. 92 West Chase City, Virginia 23924

Dear Ms. Jones:

First, we want to thank you for your continued business and support of CoBank. We appreciate the opportunity to serve the financing needs of Mecklenburg Electric Cooperative (the "Borrower"). As discussed in your Credit Agreement with CoBank, this instruction letter will provide details, in the form of a checklist that will assist you in managing the closing process. This instruction letter constitutes a "Loan Document." Capitalized terms used and not defined in this letter have the meanings given to them in the Credit Agreement or any other Loan Document.

Signing instructions for documents that need to be signed are provided below. Please return all signed documents, and other documents to be delivered, to the attention of Loan Processing Closing at your earliest convenience, but no later than September 9, 2020. A Federal Express label has been included for your use. You are welcome to expedite the processing of this transaction by e-mailing the signed documents to riclosing@cobank.com or by faxing the signed documents to Loan Processing Closing Fax No. (877) 222-1603, provided that all documents bearing the original ink signatures are mailed promptly to 6340 S. Fiddlers Green Cir., Greenwood Village, CO 80111.

CONDITIONS PRECEDENT. CoBank's obligation to extend credit pursuant to the documents listed below is conditioned upon the receipt of the following items, all of which must be acceptable in form and substance to CoBank in its sole discretion and in compliance with the requirements of the Loan Documents.

SIGNING AUTHORITY OF BORROWER

Incumbency Certificate (Update as Needed). Complete the new incumbency certificate only if authorized signers have changed since the last incumbency certificate was submitted to CoBank. If there are changes, obtain the signatures of all officers authorized by the resolution, and have the Secretary or Assistant Secretary complete the certification at the bottom of the form. If we do not receive a new incumbency certificate, we will rely on the enclosed last incumbency certificate we received from you.

It is important that the documents listed below are executed by an officer authorized by your resolution and who has signed the most recent incumbency certificate (a copy with authorized titles and signatures circled is included).

BORROWER ITEMS TO BE DELIVERED OR COMPLETED



П	This Letter.
	Credit Agreement Amendment No. 12514935SLA-A. This document amends your existing Credit Agreement No. 12514935SLA.
	Promissory Note No. 12514935S01-A.
	Beneficial Ownership Certificate. A Beneficial Ownership Certificate may be required to be completed prior to closing. You will receive this form directly from your Relationship Manager. Instructions for completing and returning the Beneficial Owner Certificate are included with the form. Please contact your Relationship Manager with any questions.

COBANK DISCLOSURE MATERIAL

Notice Regarding Electronic Signatures.

When all condition precedent documents have been delivered, and CoBank has determined that all closing conditions have been met and the loan closes (the "Closing Date"), we will send you a copy of the signed document(s) that are countersigned by CoBank for your records.

The Borrower hereby represents that nothing in the Borrower Organizational Documents has changed since such documents were last submitted to CoBank and the Borrower remains in good standing in the jurisdiction of its incorporation or formation.

By signing this letter, Borrower hereby affirms and/or reaffirms each and every representation and warranty set forth herein and in any other Loan Documents.

This Instruction Letter, each Promissory Note and any other Loan Document may be executed in counterparts, each of which will constitute an original, but all of which when taken together will constitute a single contract. Delivery of an executed counterpart of a signature page of this Instruction Letter, each Promissory Note and any other Loan Document by facsimile or other electronic means will be as effective as delivery of a manually executed counterpart of each such agreement.

If you have any questions, contact one of your CoBank team members:

CoBank Associate	Specialty	Phone Number	E-mail Address
Gabriel Labastida	Relationship Manager	(770) 618-3222	glabastida@cobank.com
Chelsey Mayabb	Closer	(800) 542-8072 Ext. 04109	cmayabb@cobank.com
Quin Bowman	Documentation	(800) 542-8072 Ext. 06533	qbowman@cobank.com
John Olson	Responsible Attorney	(800) 542-8072 Ext. 04102	JoOlson@cobank.com

Sincerely,

Ouin Bowman

SIGNATURE PAGE FOLLOWS

SIGNATURE PAGE TO INSTRUCTION LETTER

IN WITNESS WHEREOF, the parties have caused this Instruction Letter to the Agreement to be executed by their duly authorized officer(s).

MECKLENBURG ELECTRIC COOPERATIVE

By:

Name:

Title: Plesident + CE

APPROVED

By Chelsey at 7:42 am, Sep 01, 2020

SIGNATURE PAGE TO INSTRUCTION LETTER

IN WITNESS WHEREOF, the parties have caused this Instruction Letter to the Agreement to be executed by their duly authorized officer(s).

COBANK, ACB

By:

Field Embert

Name:

Fidel Escalante

Title:

Assistant Corporate Secretary



Amendment No. 12514935SLA-A

AMENDMENT TO CREDIT AGREEMENT

THIS AMENDMENT is entered into as of August 19, 2020, between MECKLENBURG ELECTRIC COOPERATIVE, Chase City, Virginia, a cooperative (the "Borrower"), and COBANK, ACB, a federally-chartered instrumentality of the United States ("Lender"). Capitalized terms used and not defined herein will have the meanings assigned to such terms in the Agreement (as defined below).

RECITALS

The Borrower and Lender are parties to Credit Agreement Number 12514935SLA dated as of September 3, 2019 (such agreement, as may be amended, is hereinafter referred to as the "Agreement"). The Borrower and Lender now desire to amend the Agreement. For that reason, and for valuable consideration (the receipt and sufficiency of which are hereby acknowledged), the Borrower and Lender agree as follows:

1. Section(s) 7.1 under Article 7 of the Agreement is amended and restated to read as follows:

ARTICLE 7 Financial Covenants. Unless otherwise agreed to in writing by Lender, while this Agreement is in effect:

Debt Service Coverage Ratio. The Borrower and its consolidated subsidiaries, if any, 7.1 will have at the end of each fiscal year of the Borrower, a Debt Service Coverage Ratio (as defined below) for such year of not less than 1.25 to 1.00. Such ratio will be determined by averaging the two highest annual ratios achieved by the Borrower during the most recent three fiscal years. For purposes hereof, the term "Debt Service Coverage Ratio" means the ratio of: (a) net income (after taxes and after eliminating any gain or loss on sale of assets or other extraordinary gain or loss), plus depreciation expense, amortization expense, and interest expense, minus non-cash patronage, and non-cash income from subsidiaries and/or joint ventures; to (b) all principal payments due within the period on all Long-Term Debt (as defined below) plus interest expense (all as calculated on a consolidated basis for the applicable period in accordance with the Accounting Standards). For purposes hereof, "Long-Term Debt" means, for the Borrower, on a consolidated basis, the sum of (1) all indebtedness for borrowed money. (2) obligations that are evidenced by notes, bonds, debentures or similar instruments, and (3) that portion of obligations with respect to capital leases or other capitalized agreements that are properly classified as a liability on the balance sheet in conformity with Accounting Standards or that are treated as operating leases under regulations applicable to them but that otherwise would be required to be capitalized under Accounting Standards, in each case having a maturity of more than one year from the date of its creation or having a maturity within one year from such date but that is renewable or extendible, at the Borrower's option, to a date more than one year from such date or that arises under a revolving credit or similar agreement that obligates the lender(s) to extend credit during a period of more than one year from such date, including all current maturities in respect of such indebtedness whether or not required to be paid within one year from the date of its creation.

MECKLENBURG ELECTRIC COOPERATIVE Chase City, Virginia Amendment No. 12514935SLA-A of Agreement No. 12514935SLA

- 2. Except as expressly amended hereby, all of the representations, warranties, terms, covenants and conditions contained in the Agreement and each other Loan Document will remain unamended and otherwise unmodified and in full force and effect.
- 3. This Amendment, each Promissory Note and any other Loan Document may be executed in counterparts, each of which will constitute an original, but all of which when taken together will constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by facsimile or other electronic means will be as effective as delivery of a manually executed counterpart of this Amendment.

SIGNATURE PAGE FOLLOWS

MECKLENBURG ELECTRIC COOPERATIVE Chase City, Virginia Amendment No. 12514935SLA-A of Agreement No. 12514935SLA

SIGNATURE PAGE TO AMENDMENT TO CREDIT AGREEMENT

IN WITNESS WHEREOF, the parties hereto, by their duly authorized officers, have executed this Agreement.

MECKLENBURG ELECTRIC COOPERATIVE

By:

Name: Jela

Title:

Pressent + CED

APPROVED

By Chelsey at 7:42 am, Sep 01, 2020

MECKLENBURG ELECTRIC COOPERATIVE Chase City, Virginia Amendment No. 12514935SLA-A of Agreement No. 12514935SLA

SIGNATURE PAGE TO AMENDMENT TO CREDIT AGREEMENT

IN WITNESS WHEREOF, the parties hereto, by their duly authorized officers, have executed this Agreement.

COBANK, ACB

By:

Name: Fidel Escalante

Title: Assistant Corporate Secretary



Loan No. 12514935S01-A

AMENDED AND RESTATED REVOLVING CREDIT PROMISSORY NOTE

THIS AMENDED AND RESTATED REVOLVING CREDIT PROMISSORY NOTE (this "Promissory Note") to the Credit Agreement dated September 3, 2019 (such agreement, as may be amended, hereinafter referred to as the "Credit Agreement"), is entered into as of August 18, 2020 between COBANK, ACB, a federally-chartered instrumentality of the United States ("Lender") and MECKLENBURG ELECTRIC COOPERATIVE, Chase City, Virginia, a cooperative (together with its permitted successors and assigns, the "Borrower"). Capitalized terms not otherwise defined in this Promissory Note will have the meanings set forth in the Credit Agreement.

RECITALS

- (A) This Promissory Note amends, restates, replaces and supersedes, but does not constitute payment of the indebtedness evidenced by, the promissory note set forth in the Amended and Restated Revolving Credit Promissory Note numbered 12514935S01, dated as of September 3, 2019, between Lender and the Borrower.
- **SECTION 1. REVOLVING CREDIT COMMITMENT.** On the terms and conditions set forth in the Credit Agreement and this Promissory Note, Lender agrees to make loans to the Borrower during the period set forth below in an aggregate principal amount not to exceed \$9,000,000.00, at any one time outstanding (the "Commitment"). Within the limits of the Commitment, the Borrower may borrow, repay and re-borrow.
- **SECTION 2. PURPOSE.** The purpose of the Commitment is to finance interim capital expenditures and the operating needs of the Borrower.
- SECTION 3. TERM. The term of the Commitment will be from September 12, 2020, up to and including September 10, 2021, or such later date as Lender may, in its sole discretion, authorize in writing (the "Term Expiration Date"). Notwithstanding the foregoing, the Commitment will be renewed for an additional 364-day period only if, on or before the Term Expiration Date, Lender provides to the Borrower a written notice of renewal for an additional 364-day period (a "Renewal Notice"). If on or before the Term Expiration Date, Lender grants a short-term extension of the Commitment, the Commitment will be renewed for an additional 364-day period only if Lender provides to the Borrower a Renewal Notice on or before such extended expiration date. All annual renewals will be measured from, and effective as of, the same day as the Term Expiration Date in any year.
- **SECTION 4. LIMITS ON ADVANCES, AVAILABILITY, ETC.** The loans will be made available as provided in Article 2 of the Credit Agreement.
- **SECTION 5. INTEREST.** The Borrower agrees to pay interest on the unpaid balance of the loan(s) in accordance with the following interest rate option(s):
- (A) Weekly Quoted Variable Rate. At a rate per annum equal at all times to the rate of interest established by Lender on the first Business Day of each week. The rate established by Lender will be effective until the first Business Day of the next week. Each change in the rate will be applicable

MECKLENBURG ELECTRIC COOPERATIVE

Chase City, Virginia **Promissory Note No.** 12514935S01-A

to all balances subject to this option and information about the then current rate will be made available upon telephonic request.

Interest will be calculated on the actual number of days each loan is outstanding on the basis of a year consisting of 360 days and will be payable monthly in arrears by the 20th day of the following month or on such other day as Lender will require in a written notice to the Borrower ("Interest Payment Date").

SECTION 6. PROMISSORY NOTE. The Borrower promises to repay the unpaid principal balance of the loans on the Term Expiration Date, as the term may be extended from time to time.

In addition to the above, the Borrower promises to pay interest on the unpaid principal balance of the loans at the times and in accordance with the provisions set forth herein.

SECTION 7. SECURITY. Except for Lender's lien on the Borrower's equity in Lender, the Borrower's obligations hereunder and, to the extent related hereto, under the Credit Agreement, will be unsecured.

SECTION 8. FEES. INTENTIONALLY OMITTED.

SECTION 9. LETTERS OF CREDIT. If agreeable to Lender in its sole discretion in each instance, in addition to loans, the Borrower may utilize the Commitment to open irrevocable letters of credit for its account. Each letter of credit will be issued within a reasonable period of time after Lender's receipt of a duly completed and executed copy of Lender's then current form of Application and Reimbursement Agreement or, if applicable, in accordance with the terms of any CoTrade Agreement between the parties, and will reduce the amount available under the Commitment by the maximum amount capable of being drawn under such letter of credit. The Borrower agrees to pay to Lender any fees, administrative expenses, and other customary charges that Lender may charge or incur from time to time in connection with the issuance, maintenance, amendment (if any), assignment or transfer (if any), negotiation, and administration of the letter of credit. Any draw under any letter of credit issued hereunder will be deemed a loan under the Commitment and will be repaid in accordance with this Promissory Note. Each letter of credit must be in form and content acceptable to Lender and must expire no later than the maturity date of the Commitment.

SIGNATURE PAGE FOLLOWS

MECKLENBURG ELECTRIC COOPERATIVE

Chase City, Virginia
Promissory Note No. 12514935S01-A

SIGNATURE PAGE TO PROMISSORY NOTE

IN WITNESS WHEREOF, the parties have caused this Promissory Note to the Credit Agreement to be executed by their duly authorized officer(s).

MECKLENBURG ELECTRIC COOPERATIVE

Ву:

Name: John C. Jen, J.

Title: President + CEO

APPROVED

By Chelsey at 7:42 am, Sep 01, 2020

MECKLENBURG ELECTRIC COOPERATIVE

Chase City, Virginia

Promissory Note No. 12514935S01-A

SIGNATURE PAGE TO PROMISSORY NOTE

IN WITNESS WHEREOF, the parties have caused this Promissory Note to the Credit Agreement to be executed by their duly authorized officer(s).

COBANK, ACB

By:

Fidel Escalante

Title:

Name:

Assistant Corporate Secretary

20701 Cooperative Way Dulles, Virginia 20166 703-467-1800 | www.ncsc.coop

December 9, 2019

Mrs. Sally Hutcherson Office Manager EMPOWER Broadband, Inc. PO Box 2451 Chase City, VA 23924

Re: Line of Credit # VA401-R-5101

Dear Mrs. Hutcherson:

Your cooperative has executed and returned all required NCSC documents and supporting papers in connection with the Line of Credit designated above. These documents have been reviewed and found legally acceptable and satisfactory to NCSC and thus constitute a binding agreement between NCSC and your cooperative.

Enclosed, for your records, is a copy of the fully executed Line of Credit Agreement. Line of Credit funds may now be requisitioned in accordance with the terms of the Line of Credit Agreement.

We at NCSC appreciate the opportunity to serve your system and look forward to our continued business relationship.

Sincerely,

Elaine MacDonald

Planemodel

Associate Vice President

Enclosure

REVOLVING LINE OF CREDIT AGREEMENT

REVOLVING LINE OF CREDIT AGREEMENT (this "Agreement"), dated as of 11-20-2019, between EMPOWER Broadband, Inc. ("Borrower"), a corporation organized and existing under the laws of the State of Virginia, and NATIONAL COOPERATIVE SERVICES CORPORATION ("NCSC"), a cooperative association organized and existing under the laws of the District of Columbia.

RECITALS

WHEREAS, the Borrower has applied to NCSC for a line of credit for the purposes set forth in Schedule 1 hereto, and NCSC is willing to extend such a line of credit to the Borrower on the terms and conditions stated herein.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants hereinafter contained, the parties hereto agree and bind themselves as follows:

ARTICLE I

DEFINITIONS

Section 1.01 For purposes of this Agreement, the following capitalized terms shall have the following meanings (such definitions to be equally applicable to the singular and the plural form thereof). Capitalized terms that are not defined herein shall have the meaning as set forth in the Security Instruments.

"Advance" shall mean each advance of funds by NCSC to the Borrower pursuant to the terms and conditions of this Agreement.

"Business Day" shall mean any day that both NCSC and the depository institution NCSC utilizes for funds transfers hereunder are open for business.

"Collateral" shall mean any and all "Collateral" as defined in any Security Instrument.

"Debt Service Coverage Ratio" or "DSC" for any fiscal year shall mean: (i) total net income of the Borrower, as determined in accordance with GAAP plus Depreciation and Amortization Expense, and interest on Long-Term Debt for such year, plus any cash equity contributions from Guarantor for such year, divided by (ii) the sum of all scheduled payments of principal and interest required to be made during such fiscal year on Long-Term Debt; provided, however, that in the event that any Long-Term Debt has been refinanced during such year the payments of principal and interest required to be made during such year on account of such Long-Term Debt shall be based (in lieu of actual payments required to be made on such refinanced Long-Term Debt) upon the larger of (a) an annualization of the payments required to be made with respect to the refinancing debt during the portion of such year such refinancing debt is outstanding or (b) the payment of principal and interest required to be made during the following year on account of such refinancing debt.

"Default Rate" shall mean a rate per annum equal to the interest rate in effect for an Advance plus two hundred (200) basis points.

"Depreciation and Amortization Expense" shall mean an amount constituting depreciation and amortization of the Borrower computed pursuant to GAAP.

"Distribution" shall mean, with respect to Borrower and its Subsidiaries, any dividend, purchase, redemption, retirement, defeasance or other acquisition for value of any equity interests now or hereafter outstanding, return of any capital to stockholders, partners or members or account debtors as such, any distribution of assets, equity interests, obligations or securities to stockholders, partners, members or account holders as such, or any other cash distribution or any general cancellation or abatement of charges for services furnished, or any equity distribution in kind.

"Effective Date" shall mean the date designated as such by NCSC on the signature page hereof.

"Environmental Laws" shall mean all federal, state and local laws, rules and regulations, now or hereafter in effect, and all judicial and administrative judgments, opinions and interpretations thereof, issued or promulgated by any Governmental Authority, relating in any way to the use, treatment, discharge, storage, management, handling, manufacture, generation, processing, recycling, distribution, transport, release of or exposure to any Hazardous Material, as such laws and other items recited above have been or may be amended from time to time.

"Equity" shall mean the aggregate of Borrower's equities and retained earnings computed pursuant to GAAP

"Equity Ratio" shall mean Equity divided by Total Assets.

"Event of Default" shall have the meaning as described in Article VI hereof.

"GAAP" shall mean generally accepted accounting principles in the United States of America as in effect from time to time.

"Governmental Authority" shall mean the government of the United States of America, any other nation or government, any state or other political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

"Guarantor" shall have the meaning ascribed to it in Schedule 1 hereto.

"Guaranty" shall mean the guaranty entered into by the Guarantor for the benefit of NCSC pursuant to Section 4.01.C hereof, as such guaranty may be amended or modified from time to time.

"Hazardous Material" shall mean any (a) petroleum or petroleum products, radioactive materials, asbestos-containing materials, polychlorinated biphenyls, lead and radon gas and (b) any other chemicals, materials or substances designated, classified or regulated as hazardous or toxic or as a pollutant or contaminant under any Environmental Law.

"Intangible Assets" shall mean assets which provide future economic benefit but have no physical substance, i.e., goodwill, patents, copyrights, etc.

"Lien" shall mean any statutory or common law consensual or non-consensual mortgage, pledge, security interest, encumbrance, lien, right of set off, claim or charge of any kind, including, without limitation, any conditional sale or other title retention transaction, any lease transaction in the nature thereof and any secured transaction under the Uniform Commercial Code.

"Line of Credit" shall mean the line of credit extended by NCSC to Borrower, pursuant to this Agreement, in an aggregate principal amount outstanding at any time not to exceed the NCSC Commitment.

"Loan Documents" shall mean this Agreement, the Security Instruments and all other documents or instruments executed, delivered or executed and delivered by Borrower and evidencing, securing, governing or otherwise pertaining to the Line of Credit or the Obligations.

"Long-Term Debt" shall mean any amount constituting long-term debt of the Borrower computed pursuant to GAAP.

"Maturity Date" shall mean the date set forth in Schedule 1 hereto.

"NCSC Commitment" shall have the meaning ascribed to it in Schedule 1 hereto.

"NCSC Line of Credit Rate" shall mean the rate published by NCSC from time to time, by electronic or other means, for similarly classified lines of credit, but if not published, then the rate determined for such lines of credit by NCSC from time to time.

"Obligations" shall mean any and all liabilities, obligations or indebtedness owing by the Borrower to NCSC, of any kind or description, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising.

"Organizational Documents" shall mean, with respect to a corporation, the articles or certificate of incorporation and bylaws and with respect to other Persons, the comparable organizational and governing documents.

"Permitted Encumbrances" shall have the meaning ascribed to it in the Security Instruments.

"Person" shall mean natural persons, sole proprietorships, cooperatives, corporations, limited liability companies, limited partnerships, general partnerships, limited liability partnerships, joint ventures, associations, companies, trusts or other organizations, irrespective of whether they are legal entities, and Governmental Authorities.

"Public Organic Record" shall have the meaning set forth in the Uniform Commercial Code of the jurisdiction of organization of the Borrower.

"Security Instrument" shall mean each agreement, instrument or document that creates or purports to create a Lien in favor of NCSC as more particularly described on Schedule 1 hereto.

"Subsidiary" as to any Person, shall mean a corporation, partnership, limited partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless otherwise qualified, all references to a "Subsidiary" or to "Subsidiaries" in this Agreement shall refer to a Subsidiary or Subsidiaries of the Borrower.

"Tangible Net Worth" shall mean Borrower's Equity less Intangible Assets.

"Total Assets" shall mean an amount constituting the total assets of the Borrower computed pursuant to GAAP.

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.01 The Borrower represents and warrants to NCSC that as of the date of this Agreement:

- A. Good Standing. The Borrower is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, is duly qualified to do business and is in good standing in those states in which it is required to be qualified to conduct its business.
- B. Subsidiaries and Ownership. Schedule 1 hereto sets forth a complete and accurate list of the Subsidiaries of the Borrower showing the percentage of the Borrower's ownership of the outstanding stock, membership interests or partnership interests, as applicable, of each Subsidiary.
- C. Authority; Validity. The Borrower has the power and authority to enter into this Agreement and the Security Instruments; to make the borrowing hereunder; to execute and deliver all documents and instruments required hereunder and to incur and perform the Obligations provided for herein and in the Security Instruments, all of which have been duly authorized by all necessary and proper action; and no consent or approval of any Person, including, as applicable and without limitation, stockholders, members and partners of the Borrower, which has not been obtained is required as a condition to the validity or enforceability hereof or thereof.

Each of this Agreement and the Security Instruments is, and when fully executed and delivered will be, legal, valid and binding upon the Borrower and enforceable against the Borrower in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity.

Documents and performance by the Borrower of the obligations thereunder, and the transactions contemplated hereby or thereby, will not: (i) violate any provision of law, any order, rule or regulation of any court or other Governmental Authority, any award of any arbitrator, the articles of incorporation, by-laws, partnership agreement, articles of organization or operating agreement of the Borrower, as applicable, or any indenture, contract, agreement, mortgage, deed of trust or other instrument to which the Borrower is a party or by which it or any of its property is bound; or (ii) be in conflict with, result in a breach of or constitute (with due notice and/or lapse of time) a default under, any such award, indenture, contract, agreement, mortgage, deed of trust or other instrument, or result in the creation or imposition of any Lien (other than contemplated hereby) upon any of the property or assets of the Borrower

The Borrower is not in default in any material respect under any agreement or instrument to which it is a party or by which it is bound and no event or condition exists which constitutes a default, or with the giving of notice or lapse of time, or both, would constitute a default under any such agreement or instrument.

- E. Taxes. The Borrower, and each of its Subsidiaries, has filed or caused to be filed all federal, state and local tax returns which are required to be filed and has paid or caused to be paid all federal, state and local taxes, assessments, and Governmental Authority charges and levies thereon, including interest and penalties to the extent that such taxes, assessments, and Governmental Authority charges and levies have become due, except for such taxes, assessments, and Governmental Authority charges and levies which the Borrower or any Subsidiary is contesting in good faith by appropriate proceedings for which adequate reserves have been set aside.
- **F.** Licenses and Permits. The Borrower has duly obtained and now holds all licenses, permits, certifications, approvals and the like necessary to own and operate its property and business that are required by Governmental Authorities and each remains valid and in full force and effect.
- **G.** Litigation. There are no outstanding judgments, suits, claims, actions or proceedings pending or, to the knowledge of the Borrower, threatened against or affecting the Borrower, its Subsidiaries or any of their respective properties which, if adversely determined, either individually or collectively, would have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower or its Subsidiaries. The Borrower and its Subsidiaries are not, to the Borrower's knowledge, in default or violation with respect to any judgment, order, writ, injunction, decree, rule or regulation of any Governmental Authority which would have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower or its Subsidiaries.
- H. Financial Statements. The balance sheet of the Borrower as at the date identified in Schedule 1 hereto, the statement of operations of the Borrower for the period ending on said date, and the interim financial statements of the Borrower, all heretofore furnished to NCSC, are complete and correct. Said balance sheet fairly presents the financial condition of the Borrower as at said date and said statement of operations fairly reflects its operations for the period ending on said date. The Borrower has no contingent obligations or extraordinary forward or long-term commitments except as specifically stated in said balance sheet or herein. There has been no material adverse change in the financial condition or operations of the Borrower from that set forth in said financial statements except changes

disclosed in writing to NCSC prior to the date hereof. The Borrower has heretofore furnished to NCSC true and complete copies of its financial reports for each of the fiscal years identified in Schedule 1 hereto.

- I. Borrower's Legal Status. Schedule 1 hereto accurately sets forth: (i) the Borrower's name on its Public Organic Record, (ii) the Borrower's organizational type and jurisdiction of organization and (iii) the Borrower's place of business or, if more than one, its chief executive office as well as the Borrower's mailing address if different.
- J. Required Approvals. No license, consent or approval of any Governmental Authority is required to enable the Borrower to enter into this Agreement and the Security Instruments, or to perform any of its Obligations provided for in such documents, except as disclosed in Schedule 1 hereto, all of which Borrower has obtained prior to the date hereof.
- K. Compliance With Laws. The Borrower and each Subsidiary is in compliance, in all material respects, with all applicable requirements of law and all applicable rules and regulations of each Governmental Authority.
- L. Disclosure. To the Borrower's knowledge, information and belief, neither this Agreement nor any document, certificate or financial statement furnished to NCSC by or on behalf of the Borrower in connection herewith (all such documents, certificates and financial statements, taken as a whole) contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements contained herein and therein not misleading.
- M. Environmental Matters. Except as to matters which individually or in the aggregate would not have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower or its Subsidiaries, (i) the Borrower is in compliance with all Environmental Laws, (ii) the Borrower has obtained all permits, licenses and other approvals required under any Environmental Law and all such permits, licenses and approvals are in full force and effect, (iii) there have been no releases from any underground or aboveground storage tanks (or piping associated therewith) that are or were present at the Mortgaged Property, (iv) the Borrower has not received written notice of, or claim or liability related to, any violation of any Environmental Law (v) there is no pending investigation of the Borrower in regard to any Environmental Law and (vi) to the best of the Borrower's knowledge, there has not been any release, or contamination resulting from the presence, of Hazardous Materials by, or otherwise related to the actions of the Borrower, or on property owned, leased or operated by the Borrower.

ARTICLE III

LOAN

Section 3.01 Advances. NCSC agrees to advance funds to the Borrower pursuant to the terms and conditions hereof, provided, however, that the principal amount at any time outstanding under this Agreement shall not exceed the NCSC Commitment. The Borrower may borrow, repay and reborrow funds at any time or from time from the Effective Date up to, but not including, the Maturity Date, at which time all principal amounts outstanding, and accrued, but unpaid interest thereon, shall be due and payable in full.

Section 3.02 Payment and Interest Rate. The Line of Credit shall be payable and bear interest as follows:

- A. Interest Rate and Payment. The Borrower unconditionally promises and agrees to pay, as and when due, interest on all amounts advanced hereunder from the date of each Advance and to repay all amounts advanced hereunder with interest on the Maturity Date, if not sooner paid. Interest shall be due and payable in accordance with NCSC's regular billing cycles as may be in effect from time to time. As of the date hereof, interest shall be due and payable on the last day of each of March, June, September and December. NCSC shall provide reasonable prior written notice to the Borrower of any change to the billing cycle or due dates for the payment of interest. NCSC shall invoice the Borrower at least five days prior to the due date of any interest payment, provided, however, that NCSC's failure to timely send an invoice with respect to any interest payment shall not constitute a waiver by NCSC or be deemed to relieve the Borrower of its obligation to make such payment as provided for herein or to repay all amounts advanced hereunder in full with accrued interest as provided for herein. All amounts shall be payable at NCSC's main office at 20701 Cooperative Way, Dulles, VA 20166 or at such other location as designated by NCSC from time to time. The interest rate on all Advances will be equal to the NCSC Line of Credit Rate in effect from time to time. Interest will be computed on the basis of a 365 day year for the actual number of days that any Advance is outstanding. The effective date of an interest rate adjustment will be determined from time to time by NCSC, and shall remain in effect until any subsequent change in the interest rate occurs.
- B. Application of Payments. Each payment shall be applied first to any fees, costs, expenses or charges other than interest or principal then due on the Borrower's indebtedness to NCSC, second to interest accrued and the balance to principal.
- Section 3.03 Paydown Requirement. For each 12-month period while this Agreement is in effect, Borrower shall, for a period of at least five consecutive Business Days, pay down the entire outstanding principal balance on this line of credit ("Paydown"). Borrower shall make the initial Paydown within 360 days of the first Advance hereunder, and shall make each subsequent Paydown within 360 days of the date of the first Advance following each Paydown.

Section 3.04 Default Rate. If the Borrower defaults on its obligation to make a payment due hereunder by the applicable date payment is due, and such default continues for thirty (30) days thereafter, then beginning on the thirty-first (31st) day after the payment is due and for so long as such default continues, Advances shall bear interest at the Default Rate.

ARTICLE IV

CONDITIONS OF LENDING

Section 4.01 Conditions Precedent to Closing. The obligation of NCSC to make Advances hereunder shall not become effective until the date on which the following conditions precedent have been satisfied:

- A. Legal Matters. All legal matters incident to the consummation of the transactions hereby contemplated shall be satisfactory to counsel for NCSC.
- **B.** Representations and Warranties. The representations and warranties contained in Article II shall be true on the date hereof.
- C. Closing Deliverables. NCSC shall have been furnished with the following, in form and substance satisfactory to NCSC:
- (i) Borrower Documents. (a) the executed Loan Documents, (b) certified copies of all such organizational documents and proceedings of the Borrower authorizing the transactions hereby contemplated as NCSC shall require, (c) an opinion of counsel for the Borrower addressing such legal matters as NCSC shall reasonably require, and (d) all other such documents as NCSC may reasonably request.
- (ii) Guarantor Documents. (a) the Guaranty executed by each Guarantor, (b) certified copies of all such organizational documents and proceedings of each Guarantor authorizing the transactions contemplated by the Guaranty as NCSC shall require, (c) true and correct copies of all certificates, authorizations, consents, permits and licenses from Governmental Authorities necessary for the execution or delivery of each Guaranty and performance by the Guarantor of the obligations thereunder and (d) an opinion of counsel for each Guarantor addressing such legal matters as NCSC shall reasonably require.
- (iii) Government Approvals. True and correct copies of all certificates, authorizations, consents, permits and licenses from Governmental Authorities necessary for the execution or delivery of the Loan Documents, performance by the Borrower of the obligations thereunder and for Borrower to conduct its business.
- (iv) Insurance. NCSC shall have received evidence of the Borrower having obtained the insurance identified in Section 5.01.K hereof.
- **D.** UCC Filings. Uniform Commercial Code financing statements (and any continuation statements and other amendments thereto that NCSC shall require from time to time) shall have been duly filed, recorded or indexed in all jurisdictions necessary (and in any other jurisdiction that NCSC shall have reasonably requested) to provide NCSC a first priority, perfected security interest, subject to Permitted Encumbrances, in the Collateral which may be perfected by the filing of a financing statement, all in accordance with applicable law, and the Borrower shall have paid all applicable taxes, recording and filing fees and caused satisfactory evidence thereof to be furnished to NCSC.

E. RESERVED

- F. Special Conditions of Closing. NCSC shall be fully satisfied that the Borrower has complied with all special conditions of closing identified in Schedule 1 hereto.
- **Section 4.02 Conditions to Advances.** The obligation of NCSC to make each Advance hereunder is additionally subject to satisfaction of the following conditions:

A. Requisitions. Borrower will requisition each Advance by submitting its written requisition to NCSC in form and substance satisfactory to NCSC no later than 12:00 noon local time at NCSC's offices in Dulles, Virginia on the Business Day prior to the Business Day Borrower seeks to have funds advanced. Such request shall be in the form attached as Exhibit A hereto and shall be made only for the purposes set forth in Schedule 1 hereto.

NCSC may require the Borrower to submit such additional information as it may reasonably require prior to funding the Advance request.

- B. Representations and Warranties; Default. The representations and warranties contained in Article II shall be true on the date of the making of each Advance hereunder with the same effect as though such representations and warranties had been made on such date; no Event of Default and no event which, with the lapse of time or the notice and lapse of time would become such an Event of Default, shall have occurred and be continuing or will have occurred after giving effect to each Advance on the books of the Borrower; there shall have occurred no material adverse change in the business or condition, financial or otherwise, of the Borrower or any Guarantor; and nothing shall have occurred which in the opinion of NCSC materially and adversely affects the Borrower's ability to perform its obligations hereunder or Guarantor's ability to perform its obligations under the Guaranty.
- C. Special Conditions of Advances. NCSC shall be fully satisfied that the Borrower has complied with all special conditions to advance identified in Schedule 1 hereto.

ARTICLE V

COVENANTS

Section 5.01 Affirmative Covenants. The Borrower covenants and agrees with NCSC that until payment in full of the Line of Credit and performance of all obligations of the Borrower hereunder:

- A. Financial Ratios. The Borrower agrees that it will operate and manage its business to achieve and maintain the financial ratios set forth in Schedule 1 hereof.
- B. Use of Proceeds. The Borrower shall use the proceeds of this Line of Credit solely for the purposes identified on Schedule 1 hereto.
 - C. Eligibility. The Borrower will remain an eligible borrower of NCSC.
 - D. Notice. The Borrower shall promptly notify NCSC in writing of:
 - any material adverse change in the business, operations, prospects, assets, liabilities or financial condition of the Borrower or its Subsidiaries;
 - (ii) the institution or threat of any litigation or administrative proceeding of any nature involving the Borrower, any Subsidiary or any Guarantor which could materially affect the business, operations, prospects, assets, liabilities or financial condition of the Borrower, any Subsidiary or any Guarantor; and

- (iii) the occurrence of an Event of Default hereunder, or any event that, with the giving of notice or lapse of time, or both, would constitute an Event of Default.
- E. Default Notices. Upon receipt of any notices with respect to a default by the Borrower or any Subsidiary under the terms of any evidence of any indebtedness with parties other than NCSC or of any loan agreement, mortgage or other agreement relating thereto, the Borrower shall, and shall cause each Subsidiary to, deliver copies of such notice to NCSC.
- Financial Books; Financial Reports; Right of Inspection. The Borrower will at all times keep, and safely preserve, proper books, records and accounts in which full and true entries will be made of all of the dealings, business and affairs of the Borrower, in accordance with GAAP. The Borrower will prepare and furnish NCSC within 30 days of the close of each fiscal quarter of the Borrower, financial reports on its condition and operations for the previous fiscal quarter. When requested by NCSC, the Borrower will prepare and furnish NCSC from time to time, not later than the last day of each month, financial reports on its condition and operations for the previous month. All of such reports shall be in such form and include such information as may be specified by NCSC, including without limitation a consolidated and consolidating balance sheet and the related consolidated and consolidating statements of income and cash flow for such quarter and for the period from the beginning of the then current fiscal year to date and for the corresponding budget period year to date. Borrower shall also provide such other reports describing the operations and financial condition as NCSC may request, such as operating statistics including but not limited to, customer or subscriber counts, penetration, additions, and deactivations for the current period and the corresponding period of the previous fiscal year. The Borrower will cause to be prepared and furnished to NCSC from time to time, within one hundred twenty (120) days of the end of each of its fiscal years, a full and complete consolidated and consolidating report of its financial condition and of its operations as of the end of such fiscal year in form and substance satisfactory to NCSC, audited and certified by independent certified public accountants nationally recognized or otherwise satisfactory to NCSC and accompanied by a report of such audit in form and substance satisfactory to NCSC. NCSC, through its representatives, shall at all times during reasonable business hours and upon prior notice have access to, and the right to inspect and make copies of, any or all books, records and accounts, and any or all invoices, contracts, leases, payrolls, canceled checks, statements and other documents and papers of every kind belonging to or in the possession of the Borrower or in any way pertaining to its property or business.

The Borrower shall furnish to NCSC, as soon as available, copies of all management reports provided to the Borrower or any Subsidiary by its independent public accountants.

- **G.** Compliance With Laws. The Borrower and each Subsidiary shall remain in compliance, in all material respects, with all applicable requirements of law and applicable rules and regulations of each Governmental Authority.
- H. Taxes. The Borrower shall pay, or cause to be paid all taxes, assessments or Governmental Authority charges lawfully levied or imposed on or against it and its properties prior to the time they become delinquent, except for any taxes, assessments or charges that are being contested in good faith and with respect to which adequate reserves as determined in good faith by the Borrower have been established and are being maintained.

I. Further Assurances. The Borrower shall execute any and all further documents, financing statements, agreements and instruments, and take all such further actions (including the filing and recording of financing statements, fixture filings, mortgages, deeds of trust and other documents), which may be required under any applicable law, or which NCSC may reasonably request, to effectuate the transactions contemplated by the Loan Documents or to grant, preserve, protect or perfect the Liens created or intended to be created thereby. The Borrower also agrees to provide to NCSC, from time to time upon request, evidence reasonably satisfactory to NCSC as to the perfection and priority of the Liens created or intended to be created by the Loan Documents.

J. Environmental Covenants. The Borrower shall:

- (i) Comply in all respects with all applicable Environmental Laws, and the Borrower shall have sole responsibility for any and all costs and expenses associated with such compliance;
- (ii) Conduct and complete, at its sole cost and expense, any investigation, study, sampling, monitoring and testing and undertake any cleanup, removal, remedial, corrective, mitigation, response or other action necessary to comply with applicable Environmental Laws; and
- (iii) Within ten (10) Business Days after receiving any written communication alleging any potential or actual violation of, or claim or liability related to, any Environmental Law, the Borrower shall provide NCSC with a copy thereof. With respect to any matter as to which it has received such notice, the Borrower shall immediately take any and all appropriate actions to remedy, cure, defend, or otherwise affirmatively respond to the matter in full compliance with all applicable Environmental Laws.
- K. Insurance. In addition to the insurance required under the Security Instruments, the Borrower will maintain insurance with responsible and reputable insurance companies or associations in such amounts and covering such risks as is usually carried by companies engaged in similar businesses and owning similar properties similarly situated.
- L. Maintenance of Existence; Licenses, Permits, etc. The Borrower will, and will cause each Subsidiary to, do or cause to be done all things necessary to preserve, renew or replace and keep in full force and effect its legal existence and rights, privileges, licenses, franchises and permits. The Borrower will qualify and remain qualified as a validly existing entity in good standing in each jurisdiction in which such qualification is necessary under applicable law.
- M. Special Covenants. The Borrower agrees that it will comply with any special covenants identified in Schedule 1 hereto.
- **Section 5.02 Negative Covenants**. The Borrower covenants and agrees with NCSC that until payment in full of the Line of Credit and performance of all obligations of the Borrower hereunder, the Borrower will not, directly or indirectly, without NCSC's prior written consent:
- A. Limitation on Indebtedness. Create, incur, assume, become or be liable in any manner in respect of, any indebtedness, or cause or permit the Subsidiaries of the Borrower to

create, incur, assume, become or be liable in any manner in respect of, any indebtedness except: (i) the Obligations, (ii) accounts payable to trade creditors for goods or services incurred in the ordinary course of business, as presently conducted, and paid within the specified time, unless contested in good faith and by appropriate proceedings, (iii) indebtedness of the Borrower or any Subsidiary with respect to Permitted Encumbrances, and (iv) loans to the Borrower from the Guarantor.

- B. Organizational Change. Change Borrower's type of organization, jurisdiction of organization or legal structure.
- C. Notice of Change in Borrower Information. Change its (i) state of incorporation, (ii) legal name, or (iii) mailing address, unless the Borrower provides written notice to NCSC at least thirty (30) days prior to the effective date of any such change together with all documentation reflecting any such change as NCSC may reasonably require.

ARTICLE VI

EVENTS OF DEFAULT

Section 6.01 The following shall be "Events of Default" under this Agreement:

- A. Representations and Warranties. Any representation or warranty made by the Borrower herein, or in any of the other Loan Documents, or in any certificate or financial statement furnished to NCSC hereunder or under any of the other Loan Documents shall prove to be false or misleading in any material respect.
- B. Payment. The Borrower shall fail to pay (whether upon stated maturity, by acceleration, or otherwise) any principal, interest, premium (if any) or other amount payable under the Line of Credit and the Loan Documents within five (5) Business Days after the due date thereof.

C. Other Covenants.

- (i) No Grace Period. Failure of the Borrower to observe or perform any covenant or agreement contained in Sections 5.01.A, 5.01.B, 5.01.C, 5.01.E, 5.01.F or 5.02 of this Agreement.
- (ii) Thirty Day Grace Period. Failure of the Borrower to observe or perform any other covenant or agreement contained in this Agreement or any of the other Loan Documents, which shall remain unremedied for thirty (30) calendar days after written notice thereof shall have been given to the Borrower by NCSC.
- D. Legal Existence, Permits and Licenses. The Borrower shall forfeit or otherwise be deprived of (i) its authority to conduct business in the jurisdiction in which it is organized or in any other jurisdiction where such authority is required in order for the Borrower to conduct its business in such jurisdiction or (ii) permits, easements, consents or licenses required to carry on any material portion of its business.

- E. Other NCSC Obligations. The Borrower shall be in breach or default of any Obligation, which breach or default continues uncured beyond the expiration of any applicable grace period.
- F. Other Obligations. The Borrower shall (i) fail to make any payment of any principal, premium or any other amount due or interest on any indebtedness with parties other than NCSC which shall remain unpaid beyond the expiration of any applicable grace period, or (ii) be in breach or default with respect to any other term of any evidence of any other indebtedness with parties other than NCSC or of any loan agreement, mortgage or other agreement relating thereto which breach or default continues uncured beyond the expiration of any applicable grace period, if the effect of such failure, default or breach is to cause the holder or holders of that indebtedness to cause that indebtedness to become or be declared due prior to its stated maturity (upon the giving or receiving of notice, lapse of time, both or otherwise).
- G. Involuntary Bankruptcy. An involuntary case or other proceeding shall be commenced against the Borrower, Guarantor or any general partner seeking liquidation, reorganization or other relief with respect to it or its debts under bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property and such involuntary case or other proceeding shall continue without dismissal or stay for a period of sixty (60) consecutive days; or an order for relief shall be entered against the Borrower under the federal bankruptcy laws or applicable state law as now or hereafter in effect.
- H. Insolvency. The Borrower, Guarantor or general partner, if any, shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall admit in writing its inability to, or be generally unable to, pay its debts as they become due, or shall take any action to authorize any of the foregoing.
- I. **Dissolution or Liquidation.** The dissolution, liquidation or other termination of the existence of the Borrower, Guarantor or general partner, if any.
- J. Validity of Documents. Any material provision of this Agreement or any other Loan Document shall at any time cease to be valid and binding on the Borrower, or shall be declared to be null and void, or the validity or enforceability thereof shall be contested by the Borrower.
- K. Material Adverse Change. Any material adverse change in the value of the Collateral or the financial condition or operating results of the Borrower or any Guarantor.
- L. Monetary Judgment. The Borrower shall suffer any money judgment not covered by insurance, writ or warrant of attachment or similar process involving an amount in excess of \$100,000.00 and shall not discharge, vacate, bond or stay the same within a period of sixty (60) consecutive days.

- **M.** Nonmonetary Judgment. One or more nonmonetary judgments or orders (including, without limitation, injunctions, writs or warrants of attachment, garnishment, execution, distraint, replevin or similar process) shall be rendered against the Borrower that, either individually or in the aggregate, could reasonably be expected to have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower.
- N. Cease Business. The Borrower shall cease to conduct all or any material part of its business.
- O. Guarantor Default. Default by any Guarantor of its obligations under the Guaranty.

ARTICLE VII

REMEDIES

Section 7.01 If any Event of Default shall occur after the date of this Agreement and shall not have been remedied within the applicable grace period therefor, then in every such event (other than an event with respect to the Borrower described in Section 6.01.G, 6.01.H or 6.01.I) and at any time during the continuance of such event, NCSC may:

- (i) Cease making Advances hereunder;
- (ii) Declare all unpaid principal outstanding on the Line of Credit, all accrued and unpaid interest thereon, and all other Obligations to be immediately due and payable and the same shall thereupon become immediately due and payable without presentment, demand, protest or notice of any kind, all of which are hereby expressly waived;
- (iii) Exercise rights of setoff or recoupment and apply any and all amounts held, or hereafter held, by NCSC or owed to the Borrower or for the credit or account of the Borrower against any and all of the Obligations of the Borrower now or hereafter existing hereunder or under the Line of Credit. The rights of NCSC under this section are in addition to any other rights and remedies (including other rights of setoff or recoupment) which NCSC may have. The Borrower waives all rights of setoff, deduction, recoupment or counterclaim;
- (iv) Pursue all rights and remedies available to NCSC that are contemplated by the Security Instruments in the manner, upon the conditions, and with the effect provided in the Security Instruments, including, but not limited to, a suit for specific performance, injunctive relief or damages;
- (v) Pursue any other rights and remedies available to NCSC at law or in equity.

If any Event of Default described in Section 6.01.G, 6.01.H or 6.01.I with respect to the Borrower shall occur after the date of this Agreement, then NCSC's commitment to make Advances hereunder shall automatically terminate and the unpaid principal outstanding hereunder, all accrued and unpaid interest thereon, and all other Obligations shall thereupon become immediately due and payable without presentment, demand, protest or notice of any kind, all of

which are hereby expressly waived. In addition, NCSC may pursue all rights and remedies available to NCSC that are contemplated by the Security Instruments and the other Loan Documents in the manner, upon the conditions, and with the effect provided in the Security Instruments and the other Loan Documents, including, but not limited to, a suit for specific performance, injunctive relief or damages and any other rights and remedies available to NCSC at law or in equity.

Nothing herein shall limit the right of NCSC to pursue all rights and remedies available to a creditor following the occurrence of an Event of Default. Each right, power and remedy of NCSC shall be cumulative and concurrent, and recourse to one or more rights or remedies shall not constitute a waiver of any other right, power or remedy.

ARTICLE VIII

MISCELLANEOUS

Section 8.01 Notices. All notices, requests and other communications provided for herein including, without limitation, any modifications of, or waivers, requests or consents under, this Agreement shall be given or made in writing (including, without limitation, by facsimile) and delivered to the intended recipient at the "Address for Notices" specified below; or, as to any party, at such other address as shall be designated by such party in a notice to each other party. All such communications shall be deemed to have been duly given (i) when personally delivered including, without limitation, by overnight mail or courier service, (ii) in the case of notice by United States mail, certified or registered, postage prepaid, return receipt requested, upon receipt thereof, or (iii) in the case of notice by facsimile, upon transmission thereof, provided such transmission is promptly confirmed by either of the methods set forth in clauses (i) or (ii) above in each case given or addressed as provided for herein. The Address for Notices of each of the respective parties is as follows:

The Borrower:

The address set forth in Schedule 1 hereto

National Cooperative Services Corporation: 20701 Cooperative Way Dulles, Virginia 20166
Attention: General Counsel Fax # 866-230-5635

Section 8.02 Expenses. The Borrower shall reimburse NCSC for any reasonable costs and out-of-pocket expenses paid or incurred by NCSC (including, without limitation, reasonable fees and expenses of outside attorneys, paralegals and consultants) for all actions NCSC takes, (a) to enforce the payment of any Obligation, to effect collection of any Collateral, or in preparation for such enforcement or collection, (b) to institute, maintain, preserve, enforce and foreclose on NCSC's security interest in or Lien on any of the Collateral, whether through judicial proceedings or otherwise, (c) to restructure any of the Obligations, (d) to review, approve or grant any consents or waivers hereunder, (e) to prepare, negotiate, execute, deliver, review, amend or modify this Agreement, and (f) to prepare, negotiate, execute, deliver, review,

amend or modify any other agreements, documents and instruments deemed necessary or appropriate by NCSC in connection with any of the foregoing.

The amount of all such expenses identified in this Section 8.02 shall be secured by the Security Instruments and shall be payable upon demand, and if not paid, shall accrue interest at the then prevailing NCSC Line of Credit Rate plus two hundred basis points.

Section 8.03 Late Payments. If payment of any principal and/or interest due under the terms of the Line of Credit is not received at NCSC's office in Dulles, Virginia or such other place as NCSC may designate to the Borrower, within five (5) Business Days after the due date thereof, the Borrower will pay to NCSC, in addition to all other amounts due under the terms of the Loan Documents, a late payment charge equal to five percent (5%) of the delinquent amount.

Section 8.04 Non-Business Day Payments. If any payment to be made by the Borrower hereunder shall become due on a day which is not a Business Day, such payment shall be made on the next succeeding Business Day and such extension of time shall be included in computing any interest in respect of such payment.

Section 8.05 Filing Fees. To the extent permitted by law, the Borrower agrees to pay all expenses of NCSC (including the reasonable fees and expenses of its counsel) in connection with the filing, registration, recordation or perfection of any security interest or financing statements and instruments as may be required by NCSC in connection with this Agreement, including, without limitation, all documentary stamps, recordation and transfer taxes and other costs and taxes incident to execution, filing, registration, recordation or perfection of any document or instrument in connection herewith. The Borrower agrees to save harmless and indemnify NCSC from and against any liability resulting from the failure to pay any required documentary stamps, recordation and transfer taxes, recording costs, or any other expenses incurred by NCSC in connection with this Agreement. The provisions of this subsection shall survive the execution and delivery of this Agreement and the payment of all other amounts due under the Loan Documents.

Section 8.06 NCSC Accounts. Borrower agrees that the records of, and all computations by, NCSC (in whatever media they are recorded or maintained) as to the amount of principal, interest and fees due on the Line of Credit shall be conclusive in the absence of manifest error

Section 8.07 Waiver; Modification. No failure on the part of NCSC to exercise, and no delay in exercising, any right or power hereunder or under the other Loan Documents shall operate as a waiver thereof, nor shall any single or partial exercise by NCSC of any right hereunder, or any abandonment or discontinuance of steps to enforce such right or power, preclude any other or further exercise thereof or the exercise of any other right or power. No modification or waiver of any provision of this Agreement or the other Loan Documents and no consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall be in writing by the party granting such modification, waiver or consent, and then such modification, waiver or consent shall be effective only in the specific instance and for the purpose for which given.

SECTION 8.08 GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

- (A) THE PERFORMANCE AND CONSTRUCTION OF THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE COMMONWEALTH OF VIRGINIA.
- (B) THE BORROWER HEREBY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE UNITED STATES COURTS LOCATED IN VIRGINIA AND OF ANY STATE COURT SO LOCATED FOR PURPOSES OF ALL LEGAL PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. THE BORROWER IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTIONS THAT IT MAY NOW OR HEREAFTER HAVE TO THE ESTABLISHING OF THE VENUE OF ANY SUCH PROCEEDINGS BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.
- (C) THE BORROWER AND NCSC EACH HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

SECTION 8.09 VOLUNTARY WAIVERS. THE BORROWER ACKNOWLEDGES THAT IT HAS BEEN ADVISED BY ITS COUNSEL WITH RESPECT TO THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY, AND THE BORROWER ACKNOWLEDGES AND AGREES THAT (A) EACH OF THE WAIVERS SET FORTH HEREIN, WERE KNOWINGLY AND VOLUNTARILY MADE; (B) THE OBLIGATIONS OF NCSC HEREUNDER, INCLUDING THE OBLIGATION TO MAKE ADVANCES AND LEND FUNDS TO THE BORROWER IN ACCORDANCE HEREWITH, SHALL BE STRICTLY CONSTRUED AND SHALL BE EXPRESSLY SUBJECT TO THE BORROWER'S COMPLIANCE IN ALL RESPECTS WITH THE TERMS AND CONDITIONS HEREIN SET FORTH; AND (C) NO REPRESENTATIVE OF NCSC HAS WAIVED OR MODIFIED ANY OF THE PROVISIONS OF THIS AGREEMENT AS OF THE DATE HEREOF AND NO SUCH WAIVER OR MODIFICATION FOLLOWING THE DATE HEREOF SHALL BE EFFECTIVE UNLESS MADE IN ACCORDANCE WITH SECTION 8.07 HEREOF.

SECTION 8.10 INDEMNIFICATION. THE BORROWER HEREBY INDEMNIFIES AND AGREES TO HOLD HARMLESS, AND DEFEND NCSC AND ITS MEMBERS, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS, ATTORNEYS AND REPRESENTATIVES (EACH AN "INDEMNITEE") FOR, FROM, AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, LIABILITIES, COSTS, AND EXPENSES (INCLUDING, WITHOUT LIMITATION, COSTS AND EXPENSES OF LITIGATION AND REASONABLE ATTORNEYS' FEES) ARISING FROM ANY CLAIM OR DEMAND IN RESPECT OF THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS, THE COLLATERAL, OR THE TRANSACTIONS DESCRIBED IN THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS AND ARISING AT ANY TIME, WHETHER BEFORE OR AFTER PAYMENT AND PERFORMANCE OF ALL OBLIGATIONS UNDER THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS IN FULL, EXCEPTING ANY SUCH MATTERS ARISING SOLELY FROM THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF NCSC OR ANY INDEMNITEE NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN SECTION 8.13 HEREOF. THE OBLIGATIONS IMPOSED UPON THE BORROWER BY THIS SECTION SHALL SURVIVE THE REPAYMENT OF THE LINE OF

CREDIT, THE TERMINATION OF THIS AGREEMENT AND THE TERMINATION OR RELEASE OF THE LIEN OF ANY SECURITY INSTRUMENT.

SECTION 8.11 ENVIRONMENTAL INDEMNIFICATION. THE BORROWER HEREBY AGREES TO ASSUME, AND DOES HEREBY ASSUME, LIABILITY FOR, AND HEREBY AGREES TO INDEMNIFY, AND DOES HEREBY INDEMNIFY, AND HEREBY AGREES TO PROTECT, DEFEND, SAVE AND KEEP HARMLESS, NCSC AND ALL INDEMNITEES FROM AND AGAINST ANY AND ALL LIABILITIES, OBLIGATIONS, LOSSES, DAMAGES, PENALTIES, SETTLEMENTS, CLAIMS, ACTIONS, SUITS OR PROCEEDINGS OF ANY KIND AND NATURE, COSTS, EXPENSES (INCLUDING REASONABLE ATTORNEYS' AND CONSULTANTS' FEES AND DISBURSEMENTS) AND DISBURSEMENTS OF ANY KIND AND NATURE WHATSOEVER WHICH MAY BE IMPOSED ON, INCURRED BY OR ASSERTED AGAINST NCSC OR ANY INDEMNITEE IN ANY WAY RELATING TO OR ARISING OUT OF (I) THE PRESENCE, USE, GENERATION, TREATMENT, STORAGE, RECYCLING, MANAGEMENT OR RELEASE OF ANY HAZARDOUS MATERIAL FROM, AT, IN, ON OR UNDER, OR THE TRANSPORT TO OR FROM, ANY PROPERTY OWNED, LEASED OR OPERATED BY THE BORROWER, (II) THE VIOLATION OF OR NONCOMPLIANCE WITH ANY ENVIRONMENTAL LAW, OR (III) ANY LOSS OF OR DAMAGE TO ANY PROPERTY. NATURAL RESOURCES OR THE ENVIRONMENT, OR DEATH OF OR INJURY TO ANY PERSON, RESULTING FROM OR RELATING IN ANY WAY TO ANY HAZARDOUS MATERIAL THAT IS OR WAS PRESENT, USED, GENERATED, TREATED, STORED, RECYCLED, MANAGED, TRANSPORTED OR RELEASED BY OR ON BEHALF OF THE BORROWER OR AT, ON, IN, UNDER, TO OR FROM ANY PROPERTY OWNED, LEASED OR OPERATED BY THE BORROWER. THE OBLIGATIONS IMPOSED UPON THE BORROWER BY THIS SECTION SHALL SURVIVE THE REPAYMENT OF THE LINE OF CREDIT, THE TERMINATION OF THIS AGREEMENT AND THE TERMINATION OR RELEASE OF THE LIEN OF ANY SECURITY INSTRUMENT.

Section 8.12 Complete Agreement. This Agreement, together with the schedules and exhibits to this Agreement and the other Loan Documents, and the other agreements and matters referred to herein or by their terms referring hereto, is intended by the parties as a final expression of their agreement and is intended as a complete statement of the terms and conditions of their agreement. In the event of any conflict in the terms and provisions of this Agreement and any other Loan Documents, the terms and provisions of this Agreement shall control.

Section 8.13 Survival; Successors and Assigns. All covenants, agreements, representations and warranties of the Borrower which are contained in this Agreement shall survive the execution and delivery to NCSC of the Loan Documents and the making of Advances hereunder and shall continue in full force and effect until all of the obligations under the Loan Documents have been paid in full. All covenants, agreements, representations and warranties of the Borrower which are contained in this Agreement shall inure to the benefit of the successors and assigns of NCSC. The Borrower shall not have the right to assign its rights or obligations under this Agreement without the prior written consent of NCSC.

Section 8.14 Use of Terms. The use of the singular herein shall also refer to the plural, and vice versa.

Section 8.15 Headings. The headings and sub-headings contained in this Agreement are intended to be used for convenience only and do not constitute part of this Agreement.

Section 8.16 Severability. If any term, provision or condition, or any part thereof, of this Agreement or the other Loan Documents shall for any reason be found or held invalid or unenforceable by any court of competent jurisdiction or other Governmental Authority, such invalidity or unenforceability shall not affect the remainder of such term, provision or condition nor any other term, provision or condition, and this Agreement and the other Loan Documents shall survive and be construed as if such invalid or unenforceable term, provision or condition had not been contained therein.

Section 8.17 Binding Effect. This Agreement shall become effective when it shall have been executed by both the Borrower and NCSC and thereafter shall be binding upon and inure to the benefit of the Borrower and NCSC and their respective successors and assigns, except that the Borrower shall not have the right to assign its rights hereunder or any interest herein without the prior written consent of NCSC.

Section 8.18 Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original and all of which together will constitute one and the same document. Signature pages may be detached from the counterparts and attached to a single copy of this Agreement to physically form one document.

Section 8.19 Security. This Line of Credit and the obligations of the Borrower hereunder are secured under the Security Instruments.

Section 8.20 Schedule 1. Schedule 1 attached hereto is an integral part of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first above written.

(SEAL)

EMPOWER Broadband, Inc.

Title:

NATIONAL COOPERATIVE SERVICES CORPORATION

(SEAL)

enhald Elaine MacDonald

Assistant Secretary-Treasurer

Loan Number: VA401-R-5101

Effective Date: December 9, 7019

SCHEDULE 1

- 1. The purpose of the loan is to provide funds for the Borrower's general corporate use, consistent with the Borrower's articles of incorporation, bylaws and applicable federal, state and local laws and regulations.
- 2. The aggregate NCSC Commitment shall mean \$1,000,000.00.
- 3. Maturity Date shall mean the date five (5) years from the Effective Date.
- Guarantor shall mean: Mecklenburg Electric Cooperative
- 5. Security Instrument shall mean the Security Agreement, dated as of even date herewith, between the Borrower and NCSC, as it may be supplemented, amended, consolidated or restated from time to time.
- 6. The Subsidiaries of the Borrower referred to in Section 2.01,B are:

Name of Subsidiary

% of Borrower's ownership

N/A

- 7. The date of the Borrower's balance sheet referred to in Section 2.01.H is December 31, 2018.
- 8. The fiscal years referred to in Section 2.01.H are 2017 and 2018.
- 9. The Borrower's exact legal name is: EMPOWER Broadband, Inc.
- 10. The Borrower's organizational type is: corporation
- 11. The Borrower is organized under the laws of the state of: Virginia
- 12. The place of business or, if more than one, the chief executive office of the Borrower referred to in Section 2.01.I is 11633 Highway #92, Chase City, VA 23924.
- 13. The Governmental Authority referred to in Section 2.01.J is: Virginia State Corporation Commission
- 14. The special conditions of closing referred to in Section 4.01.F are as follows: None
- The special conditions of advance referred to in Section 4.02.C are as follows: None
- 16. The financial ratios referred to in Section 5.01.A are:

An annual DSC of not less than (a) 1.00 as of December 31, 2020, (b) 1.10 as of December 31, 2021, and (c) 1.25 as of December 31, 2022 and as of each December 31 thereafter, each measured based on Borrower's fiscal year-end results as reflected in its audited financial statements.

- 17. The special covenants referred to in Section 5.01.M are as follows:
 - (a) Borrower shall provide NCSC with an annual budget, in form and substance satisfactory to NCSC, within thirty (30) days of the beginning of each fiscal year.
 - (b) Borrower shall not make, declare or pay, or permit any of its Subsidiaries to make, declare or pay, any Distribution except under the following conditions:
 - (i) The Borrower is in compliance with all covenants set forth in Article V hereof; and
 - (ii) After giving effect to the Distribution, the Equity Ratio will be not less than twenty percent (20%).
- 18. The address for notices to the Borrower referred to in Section 8.01 is:

If by personal delivery (including overnight mail or courier service):

EMPOWER Broadband, Inc. 11633 Highway #92 Chase City, VA 23924 Attention: General Manager

If by United States mail:

EMPOWER Broadband, Inc. PO Box 2451 Chase City, VA 23924 Attention: General Manager

If by facsimile:

Fax: (434) 372-6101

EXHIBIT A



LOAN ADVANCE FORM

Borrower Name	Borrower	Facility	Advance	Advance
	ID#	#	Date	Amount

Loan Advance Purpose	Loan Advance Purpose		

Interest Rate Selection			
Variable Rate (NCSC Associate)			

Banking Information	Correspondent Bank Information Routing Bank Name		
Bank Name:			
City, State:	Routing Bank City, State		
Bank ABA #	Routing Bank ABA #		
Bank Account #			

CERTIFICATION

Acting on behalf of the Borrower, I hereby certify that as of the date below: (1) I am duly authorized to make this certification and to request funds on the terms specified herein; (2) the Borrower has met all of the conditions contained in the loan agreement governing the terms of this Advance that the Borrower is required to meet prior to an Advance of funds; (3) all of the representations and warranties contained in said loan agreement are true; (4) no Event of Default, as defined in said loan agreement, has occurred and is continuing; (5) I know of no other event that has occurred which, with the lapse of time and/or notification to NCSC of such event, or after giving effect to this Advance, would become an Event of Default; and (6) the funds requested herein will be used only for the purposes specified in said loan agreement.

I hereby authorize NCSC, for and on behalf of the Borrower, to make this Advance on the following terms, and hereby acknowledge and agree that such terms shall be binding upon Borrower under the provisions of the loan agreement governing this Advance:

Certified By:				
Signature	Date	Title of Authorized Officer		
** FOR INTERNAL USE ONLY	**			
Amortization Method ———— Advance Approved By: ———		Deferral		
Portfolio Manager				

Confidential and Proprietary - Not for Public View



2201 Cooperative Way
Herndon, Virginia 20171-3025
703-709-6700 | www.nrucfc.coop

A Touchstone Energy Cooperative

November 29, 2006

Mr. M. John Bowman President and CEO Mecklenburg Electric Cooperative 11633 Hwy 92 Chase City, VA 23924

Re: Line of Credit # VA031-P-5102

Dear Mr. Bowman:

Your cooperative has executed and returned all required CFC documents and supporting papers in connection with the Line of Credit designated above. These documents have been reviewed and found legally acceptable and satisfactory to CFC and thus constitute a binding agreement between CFC and your cooperative.

Enclosed, for your records, is a copy of the fully executed Line of Credit Agreement. Line of Credit funds may now be requisitioned in accordance with the terms of the Line of Credit Agreement.

We at CFC appreciate the opportunity to serve your system and look forward to our continued business relationship.

Sincerely,

David Olah

Associate Vice President

David orl

Enclosure

National Rural Utilities Cooperative Finance Corporation Perpetual Line of Credit Agreement ("Agreement")

Name of Borrower: Mecklenburg Electric Cooperative

Address: PO Box 2451, 11633 Hwy 92, Chase City, Virginia 23924

National Rural Utilities Cooperative Finance Corporation ("CFC"), a District of Columbia corporation, has approved Borrower for a revolving line of credit loan in an amount not to exceed Nine Million Two Hundred Thousand Dollars (\$9,200,000.00) (hereinafter referred to as the "CFC Commitment"). Borrower hereby agrees that the terms and conditions herein, plus any additional terms and conditions agreed to in writing by the parties, shall constitute a valid and binding agreement between Borrower and CFC. In consideration of their mutual promises hereunder and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CFC and Borrower agree to the following terms and conditions:

- 1. Revolving Credit and Term. CFC agrees to advance funds to the Borrower pursuant to the terms and conditions hereof (each such advance of funds is referred to herein as an "Advance"), provided, however, that the amount at any time outstanding under this line of credit shall not exceed the CFC Commitment. The Borrower may borrow, repay and reborrow funds at any time or from time to time for a period up to twelve (12) months from the effective date hereof. This Agreement shall thereafter automatically renew for subsequent periods of twelve (12) months each. Either party may terminate this Agreement at the end of any period by providing written notice to the other party at least ninety (90) days prior to the expiration of such period.
- 2. Requisitions. Requests for Advances shall be in such written form as CFC may reasonably require from time to time.
- 3. Interest Rate and Payment. The Borrower unconditionally promises and agrees to pay, as and when due, interest on all amounts advanced hereunder from the date of each Advance and to repay all amounts advanced hereunder with interest on the date this Agreement terminates as provided herein. Interest shall be due and payable in accordance with CFC's regular billing cycles as may be in effect from time to time. CFC shall send a payment notice to the Borrower at least five days prior to the due date of any interest payment. All amounts shall be payable at CFC's main office at Woodland Park, 2201 Cooperative Way, Herndon, Virginia 20171-3025 or at such other location as designated by CFC from time to time. The interest rate on all Advances will be equal to the total rate per annum as may be fixed by CFC from time to time, which shall not exceed the Prevailing Bank Prime Rate (as defined herein), plus one percent per annum. Interest will be computed on the basis of a 365 day year for the actual number of days that any

Advance is outstanding. The effective date of an interest rate adjustment will be determined from time to time by CFC, provided that no such adjustment may be effective on a date other than the first or sixteenth day of any month, and any such adjustment shall remain in effect until any subsequent change in the interest rate occurs.

The "Prevailing Bank Prime Rate" is that bank prime rate published in the "Money Rates" column of the eastern edition of *The Wall Street Journal* on the publication day immediately preceding the day on which an adjustment in the interest rate hereof shall become effective. If *The Wall Street Journal* shall cease to be published, then the Prevailing Bank Prime Rate shall be determined by CFC by reference to another publication reporting bank prime rates in a similar manner.

4. Mandatory Prepayment. If (a) there is a change in the Borrower's corporate structure (including without limitation by merger, consolidation, conversion or acquisition), and (b) after giving effect to such change, Borrower (i) would not be eligible to receive a loan or commitment for a loan from the Rural Utilities Service or any successor agency, or (ii) would no longer engage in the furnishing of utility services to its members and patrons for their use as ultimate consumers, then upon the effective date of such change, the Borrower shall prepay the outstanding principal balance of all Obligations, together with any accrued but unpaid interest thereon, any unpaid costs or expenses provided for herein, and a prepayment premium prescribed by CFC pursuant to its policies of general application in effect from time to time.

"Obligations" shall mean any and all liabilities, obligations or indebtedness owing by the Borrower to CFC, of any kind or description, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising.

- 5. CFC Accounts. CFC shall maintain in accordance with its usual practices an account or accounts evidencing the indebtedness of the Borrower resulting from each Advance and the amounts of principal and interest payable and paid hereunder. In any legal action or proceeding in respect of this Agreement, the entries made in such account or accounts (whether stored on computer memory, microfilm, payment notices or otherwise) shall be presumptive evidence (absent manifest error) of the existence and amounts of the Borrower's transactions therein recorded.
- **6. Corporate and Regulatory Approvals.** Borrower represents and warrants that it has obtained any and all necessary corporate and regulatory approvals for Borrower to execute, deliver and perform its obligations under this Agreement.
- 7. Reports. During the term of this Agreement, Borrower agrees (a) to provide CFC, within 120 days of the end of Borrower's fiscal year, its annual financial statements, prepared in accordance with generally accepted accounting principles ("GAAP") and audited by an independent certified public accountant, or otherwise in form and substance satisfactory to CFC, and (b) to provide CFC with any other reports or information which CFC may from time to time reasonably request.
- Fees. If any amount outstanding and due hereunder shall not be paid when due, Borrower agrees to pay on demand CFC's reasonable costs of collection or enforcement

of this Agreement, or preparation therefor, including reasonable fees of counsel. If payment of any principal and/or interest due under the terms of this Agreement is not received at CFC's office in Herndon, Virginia, or such other location designated by CFC within 5 business days after the due date thereof, then Borrower shall pay to CFC, on demand, and in addition to all other amounts due under the terms of this Agreement, any late-payment and additional interest charges as may then be in effect pursuant to CFC's then current policies without setoff or counterclaim. For purposes of this Agreement, a "business day" means a day that both CFC and the financial institution it employs for funds remittance are open for business.

- 9. Limitation on Advances. While an Advance is outstanding, CFC reserves the right to limit further Advances if the sum of (a) all Advances outstanding, (b) the amount of any further Advance requested, and (c) the total amount of Borrower's other unsecured outstanding debt, would exceed the CFC Commitment. CFC may also, in its sole discretion decline to make any Advance during any period when the Borrower is in default hereunder.
- 10. Paydown Requirement. For each 12-month period while this Agreement is in effect, Borrower shall, for a period of at least five consecutive business days, pay down the entire outstanding principal balance on this line of credit ("Paydown"). Borrower shall make the initial Paydown within 360 days of the first Advance hereunder, and shall make each subsequent Paydown within 360 days of the date of the first Advance following each Paydown.
- 11. Credit Support. With CFC's prior written approval, this Agreement may be used as credit support for other financings.
- Notices, Acceleration of Debt and Waivers. While an Advance is outstanding, Borrower 12. agrees to notify CFC in writing of (a) any delinquency or default on any of its financial obligations, (b) any material adverse change in its financial or business condition, and (c) if any representation or warranty made in this Agreement is no longer true in any material respect. If any delinquency, default, or any other event as a result of which any holder of indebtedness may declare the same due and payable shall occur and continue uncorrected for more than any applicable grace period, or any representation or warranty herein shall no longer be true, or Borrower shall fail to perform or to comply with any term of this Agreement, or if the financial condition of Borrower shall have changed to the extent that such change, in the reasonable judgment of CFC, materially increases CFC's risk of repayment hereunder, then CFC may declare at any time all outstanding principal, interest and other amounts due hereunder immediately due and payable in full with accrued interest, without presentment or demand, and may withhold Advances. The Borrower waives the defense of usury and all rights to setoff, counterclaim, deduction or recoupment.
- 13. Survival of Representations and Warranties and Payment Obligations. Borrower agrees that its obligation to repay principal, interest and all other amounts due hereunder, and the representations and warranties made herein, shall survive termination of this Agreement. Borrower further agrees that such repayment obligations shall be automatically reinstated if and to the extent that for any reason any payment by or on

behalf of the Borrower is rescinded, set aside or must be otherwise restored, whether as a result of any proceeding in bankruptcy or reorganization or otherwise.

- **14.** Representations and Warranties. Borrower represents and warrants that as of the date of its application for this line of credit, and on the date of each Advance hereunder:
 - a) the Borrower is not in default of any of its financial obligations;
 - b) there has been no material adverse change in the Borrower's business or financial condition from that set forth in its most recent audited financial statements:
 - no litigation is pending or, to the best of Borrower's knowledge, threatened against the Borrower which, if adversely determined, would have a material adverse effect on the Borrower's ability to perform under this Agreement;
 - d) the information contained in Borrower's audited financial statements, its other financial reports and information otherwise submitted in connection with this Agreement is complete and accurate, and said financial statements and financial reports fairly represent the financial condition of the Borrower as of the dates reflected thereon;
 - e) the execution, delivery and performance of this Agreement has been duly authorized by the Borrower, which authorization has not been rescinded or modified;
 - f) all Advances hereunder will be used only for proper corporate purposes;
- **15. Conditions of Lending.** As a condition to CFC making Advances hereunder, each of the following conditions shall be satisfied at the time of each Advance:
 - a) CFC shall have received the Borrower's most recent annual financial statements, prepared in accordance with GAAP and audited by an independent certified public accountant, or otherwise in form and substance satisfactory to CFC:
 - b) all representations and warranties set forth herein shall be true and correct; and
 - c) the Borrower shall have obtained any and all necessary corporate, regulatory and governmental approvals for the Borrower to execute, deliver and perform its obligations under this Agreement.
- 16. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.
 - (a) THE PERFORMANCE AND CONSTRUCTION OF THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE COMMONWEALTH OF VIRGINIA.
 - (b) BORROWER HEREBY SUBMITS TO THE NONEXCLUSIVE JURISDICTION OF THE UNITED STATES COURTS LOCATED IN VIRGINIA AND OF ANY STATE COURT SO LOCATED FOR PURPOSES OF ALL LEGAL PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. BORROWER IRREVOCABLY

WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE ESTABLISHING OF THE VENUE OF ANY SUCH PROCEEDING BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.

- (c) EACH OF THE BORROWER AND CFC HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.
- 17. Severability. If any term, provision or condition, or any part thereof, of this Agreement shall for any reason be found or held invalid or unenforceable by any court or governmental agency of competent jurisdiction, such invalidity or unenforceability shall not affect the remainder of such term, provision or condition nor any other term, provision or condition, and this Agreement shall survive and be construed as if such invalid or unenforceable term, provision or condition had not been contained herein.
- Setoff. Upon the occurrence and during the continuance of any default, CFC is hereby authorized at any time and from time to time without prior notice to the Borrower to exercise rights of setoff or recoupment and apply any and all amounts held, or hereafter held, by CFC or owed to the Borrower or for the credit or account of the Borrower against any and all of the obligations of the Borrower now or hereafter existing hereunder. CFC agrees to notify the Borrower promptly after any such setoff or recoupment and the application thereof, provided that the failure to give such notice shall not affect the validity of such setoff, recoupment or application. The rights of CFC under this section are in addition to any other rights and remedies (including other rights of setoff or recoupment) which CFC may have.
- 19. Additional Terms and Conditions. Additional terms and conditions as set forth herein or attached hereto are an integral part of this Agreement.
- 20. **Termination and Cancellation of Existing Agreement.** Borrower agrees that its existing line(s) of credit No(s). VA031-R-5101 with CFC, and any agreement(s) relating thereto shall be terminated and any outstanding principal, interest and other amounts outstanding thereunder shall be transferred to the line of credit established pursuant to this Agreement and deemed an Advance hereunder.
- 21. Miscellaneous. (a) This Agreement contains the entire agreement of the parties hereto with respect to the matters covered and the transactions contemplated hereby, and no other agreement, statement or promise made in connection with this line of credit by any party hereto, or by any employee, officer, agent or attorney of any party hereto which is not contained herein shall be valid and binding. (b) Any amendment to this Agreement must be in writing signed by both parties. (c) No failure or delay by CFC in exercising any right or remedy hereunder shall operate as a waiver or preclude the future exercise thereof or of any other right or remedy. (d) If any payment is due from Borrower on a day which CFC is not open for business, then such payment shall be made on the next succeeding day on which CFC is open for business.

22. Notices. All notices, requests and other communications provided for herein including, without limitation, any modifications of, or waivers, requests or consents under, this Agreement shall be given or made in writing (including, without limitation, by telecopy) and delivered to the intended recipient at the "Address for Notices" specified below; or, as to any party, at such other address as shall be designated by such party in a notice to each other party. Except as otherwise provided in this Agreement, all such communications shall be deemed to have been duly given when personally delivered or, in the case of a telecopied or mailed notice, upon receipt, in each case given or addressed as provided for herein. The Address for Notices of the respective parties are as follows:

CFC:

National Rural Utilities
Cooperative Finance Corporation
2201 Cooperative Way
Herndon, Virginia 20171-3025
Attention: Senior Vice President - Member Services
Fax: (703) 709-6776

The Borrower:
Mecklenburg Electric Cooperative
PO Box 2451, 11633 Hwy 92
Chase City, VA 23924
Attention: President and Chief Executive Officer
Fax: (434) 372-6101

23. Additional Terms and Conditions.

- (a) Prior to and as a condition of making the initial Advance, CFC shall have been furnished with an opinion of counsel for Borrower addressing such legal matters as CFC shall reasonably require.
- (b) CFC hereby agrees to reserve \$90,000.00 hereunder to back potential obligations of Borrower to the Virginia Department of Transportation ("VDOT"). To access the reserved funds, Borrower will need to submit documentation in form and substance acceptable to CFC that confirms that proceeds of Advances from the reserved portion are to be used solely to make payment on its obligations to VDOT. Such documentation will include, but not be limited to the appropriate notification from VDOT that Borrower owes payment to VDOT which payment has not been made within a specified timeframe, that such non-payment default has not been cured within any applicable grace period and that VDOT has demanded payment to cure such default.

The reservation in availability will remain in place until Borrower submits a written request in form and substance satisfactory to CFC, confirming that it is no longer necessary for the reservation to remain in effect.

Confidential and Proprietary - Not for Public View

MECKLENBURG ELECTRIC COOPERATINE
Signed By:
Title: Chairman of the Board
Date Signed: November 15, 2006
NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
By: Loan Number: VA031-P-5102 Assistant Secretary-Treasurer DAVID W OLAH
(To be filled in by CFC) The effective date of this Agreement is: 11/29/06



County of Brunswick

OFFICE OF THE COUNTY ADMINISTRATOR

POST OFFICE BOX 399 LAWRENCEVILLE, VA 23868 PHONE - (434) 848-3107 FAX - (434) 848-0424

August 24, 2022

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing and Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, VA 23219

Re: Match Commitment Letter

Dear Dr. Holmes:

Brunswick County is participating in a regional VATI application this year in collaboration with the Southside Planning District Commission and EMPOWER Broadband. This project will provide reliable broadband infrastructure to our Region and is essential to the survival of our communities. The Southside Planning District Commission will be the applicant for this FY 22/23 VATI application.

Please be advised that the Brunswick County Board of Supervisors has approved \$47,952.46 from its allotment of the American Recovery Plan Act in matching funds for the application.

Thank you for your consideration and please let me know if you require additional documentation or have questions regarding our County's participation.

Sincerely,

Leslie R. Weddington
County Administrator

Dr. Charlette T. Woolridge County Administrator

Gary L. Cifers
Assistant County Administrator

Natalie B. Slate
Director of Economic Development

Dr. Terrence WoodDirector of Human Resources

Russell O. Slayton, Jr. County Attorney



Belinda D. Astrop Vice-Chairman Election District 1

James R. Brown Election District 2

William B. Cain Election District 3

Tony M. Conwell

Chairman

Election District 4

August 24, 2022

Dr. Tamarah Holmes, Director Office of Broadband Virginia Department of Housing and Community Development VATI Program 600 East Main Street, Suite 300 Richmond, Virginia 23219

RE: Letter of Support

Dear Dr. Holmes:

Greensville County is participating in a regional VATI application this year in collaboration with the Southside Planning District Commission and EMPOWER Broadband. This project will provide reliable broadband infrastructure to our Region and is essential to the survival of our communities. The Southside Planning District Commission will be the applicant for this FY 23 VATI application.

Please be advised that Greensville County will provide \$859,000 in matching funds for the application.

Thank you for your consideration and please let me know if you require additional documentation or have questions regarding our County's participation.

Sincerely,

Dr. Charlette Woolridge County Administrator



BOARD OF SUPERVISORS 1050 Mary Bethune Street P. O. Poy 600

CALVIN "RICKY" SHORT - ED#1 CHAIRMAN GARLAND B. RICKETTS - ED#7 VICE CHAIRMAN

P. O. Box 699
Halifax, VA 24558-0699
(434) 476-3300
Fax: (434) 476-3384
www.halifaxcountyva.gov

HALIFAX COUNTY

LARRY D. ROLLER - ED#2
H. W. H. PANNELL - ED#3
RONNIE DÜFFEY - ED#4
DEAN THROCKMORTON - ED#5
STANLEY BRANDON - ED#6
W. BRYANT CLAIBORNE - ED#8

County Administrator srs@co.halifax.va.us

August 22, 2022

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE:

Project Application Support

Match Commitment

Dear Dr. Holmes:

Halifax County is participating in a regional VATI application this year in collaboration with the Southside Planning District Commission and EMPOWER Broadband. This project will provide reliable broadband infrastructure to our Region and is essential to the survival of our communities. The Southside Planning District Commission will be the applicant for this FY 2023 VATI application. Broadband services with adequate speeds and ISP follow through is vital to our region and specifically Halifax County

Please be advised that Halifax County's broadband fund has an adequate balance available in order to commit in excess of \$325,000 in matching funds for our portion of this application.

Thank you for your consideration and please let me know if you require additional documentation or have questions regarding our County's participation.

Sincerely,

Scott R. Simpson, PE, MPA

County Administrator



County Administrator Emergency Services Director

Mecklenburg County Board of Supervisors

Post Office Box 307 . Boydton, Airginia 23917

BOARD OF SUPERVISORS Glenn Barbour Chairman

> Glanzy M. Spain, Jr. Vice-Chairman

> > David Brankley Andy Hargrove

Jim Jennings Charles Jones

Claudia H. Lundy

Tom Tanner Sterling Wilkinson

August 24, 2022

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Match Commitment Letter

Dear Dr. Holmes:

Mecklenburg County is participating in a regional VATI application this year in collaboration with the Southside Planning District Commission and EMPOWER Broadband. This project will provide reliable broadband infrastructure to our Region and is essential to the survival of our communities. The Southside Planning District Commission will be the applicant for this FY 22/23 VATI application.

Please be advised that Mecklenburg County will provide \$300,000.00 in matching funds for the application.

Thank you for your consideration and please let me know if you require additional documentation or have questions regarding our County's participation.

Sincerely,

H. Wayne Carter, III.
County Administrator

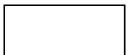
CDBG Derivation of Cost

Product	Total	VATI	N	Non-VATI	Source of Estimate	Date
Admin. Costs (SPDC)	\$ 200,000	\$ 200,000	\$	-	SPDC	8/20/2022
RDOF as Match *	\$ (3,722,352)		\$	-	FCC Auction 904	8/20/2022
OA Engineering Cost	\$ -	\$ -	\$	-		
Engineering OSP Cost (BCHM)	\$ 3,777,376	\$ -	\$	3,777,376	MEC Based on 2018- 2022 projects	8/20/2022
Engineering OSP Cost (G)	\$ 2,598,701	\$ -	\$	2,598,701	MEC Based on 2018- 2022 projects	8/20/2022
Engineering Electronics Cost (BCHM)	\$ 132,257	\$ -	\$	132,257	MEC Based on 2018- 2022 projects	8/20/2022
Engineering Electronics Cost (G)	\$ 41,632	\$ -	\$	41,632	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Access and Transport Costs	\$ -	\$ -	\$	-		
EMP - Transport Costs (BCHM)	\$ 980	\$ -	\$	980	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Transport Costs (G)	\$ 735	\$ -	\$	735	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Access Costs (BCHM)	\$ 885,009	\$ -	\$	885,009	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Access Costs (G)	\$ 287,632	\$ -	\$	287,632	MEC Based on 2018- 2022 projects	8/20/2022

EMP - ONT and Services Installation Costs	\$ -	\$ -	\$ -		
EMP - ONT Cost (BCHM)	\$ 671,913	\$ -	\$ 671,913	MEC Based on 2018- 2022 projects	8/20/2022
EMP - ONT Cost (G)	\$ 202,059	\$ -	\$ 202,059	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Service Installations (BCHM)	\$ 95,321	\$ -	\$ 95,321	MEC Based on 2018- 2022 projects	8/20/2022
EMP - Service Installations (G)	\$ 29,981	\$ -	\$ 29,981	MEC Based on 2018- 2022 projects	8/20/2022
Total OSP Cost	\$	\$ -	\$ -		
Feeder 1 FDP + OSP Splitter Cabinets + Splitter Cost (BCHM)	\$ 414,875	\$ -	\$ 414,875	MEC Based on 2018- 2022 projects	8/20/2022
Feeder 1 FDP + OSP Splitter Cabinets + Splitter Cost (G)	\$ 127,487	\$ -	\$ 127,487	MEC Based on 2018- 2022 projects	8/20/2022
MEC - Total OSP Mainline Cost (BCHM)	\$ 22,500,954	\$ 12,436,211	\$ 10,064,743	MEC Based on 2018- 2022 projects	8/20/2022
MEC - Total OSP Mainline Cost (G)	\$ 18,953,486	\$ 10,475,592	\$ 8,477,894	MEC Based on 2018- 2022 projects	8/20/2022
MEC - Total OSP Drop Cost (BCHM)	\$ 8,562,309	\$ 4,732,388	\$ 3,829,921	MEC Based on 2018- 2022 projects	8/20/2022
MEC - Total OSP Drop Cost (G)	\$ 2,574,874	\$ 1,423,423	\$ 1,151,451	MEC Based on 2018- 2022 projects	8/20/2022
TOTAL	\$ 58,335,229	\$ 29,267,614	\$ 32,789,967		

CDBG Derivation of Cost

*Additionally, EMPOWER Broadband was awarded \$5,053915 in Federal funds received as part of the RDOF auction for Brunswick, Halifax, Greensville and Mecklenburg counties, that will be paid out over the next 10 years to support the buildout as revenues and subscribers grow to become self-sustaining. The RDOF blocks awarded to EMPOWER are strategically located in areas adjacent to its foundational fiber backbone. \$3,722,352 of those funds will be used as additional leverage for the project and were excluded from match expenses and support costs (see Attachment 13).





HEADQUARTERS

P. O. Box 325 Chase City, VA 23924 Phone: 434-372-6244

BRACEY DISTRICT

P. O. Box 129 Bracey, VA 23919 Phone: 434-636-2274

August 23, 2022

Tamarah Holmes, Ph.D.
Director, Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Cost Estimates for VATI FY 2023 Application for EMPOWER Broadband

Dear Dr. Holmes:

To develop the network design and associated cost estimates contained in the application to continue pursuit of universal coverage to Brunswick, Greensville, Halifax, Mecklenburg, and the southern portion of Charlotte County, Empower Broadband has based this request on extending the existing fiber network.

The cost estimates contained in the application are derived using Finley Engineering's Cost estimate model. Finley is a multi-disciplined organization offering professional engineering, surveying, mapping, environmental and right-of-way services to the telecommunications, electric power transmission and distribution, gas pipeline, cable television, fiber optics, and related industries.

Utilizing this comprehensive model, EMPOWER is able to calculated detailed cost estimates taking into account multiple expenses derived from numerous successful projects completed by EMPOWER and its parent organization Mecklenburg Electric Cooperative.

Sincerely,

Dwayne L. Long

Empower Broadband COO Mecklenburg Electric VP of IT

Wagne T. Long

Southern Brunswick, Southern Charlotte, Halifax and Mecklenburg Counties Estimate Sub-total

			,	,			
			Sum of				
	Sum of Total		Estimated Total	Sum of Estimated			
	Premises	Sum of Total	Route Mileage	Total Drop Mileage	Sum of Serving Area	Sum of MEC-Total OSP	
Row Labels	Passed	Subscribers	Including Loops	Including Loops	Total Cost	Mainline Cost	Sum of MEC-Total OSP Drop Cost
Dominion	4,064	4 1,82	9 183.80	154.13	\$ 19,906,696.94	\$11,443,634.62	\$5,127,040.80
Feeder	4,06	4 1,82	9 183.80	154.13	\$ 19,906,696.94	\$11,443,634.62	\$5,127,040.80
MEC	2,72	3 1,22	5 177.60	103.27	\$ 17,134,301.48	\$11,057,319.52	\$3,435,268.73
Feeder	2,72	3 1,22	5 177.60	103.27	\$ 17,134,301.4	\$11,057,319.52	\$3,435,268.73
Grand Total	6,78	7 3,05	4 361.40	257.40	\$ 37,040,998.4	l \$22,500,954.15	\$8,562,309.53

Southern Brunswick, Southern Charlotte, Halifax and Mecklenburg Counties Estimates

Grand Total Costs RDOF as Match	\$ 37,040,998.41
Funding Required	\$ 37,040,998.41
50% VATI Match	\$ 18,520,499.21
Dominion Match	\$ 14,779,656.14
Remaining Match	\$ 3,740,843.07

Greensville County Estimate Sub-total

			Sum of	·				
	Sum of Total		Estimated Total	Sum of Estimated				
	Premises	Sum of Total	Route Mileage	Total Drop Mileage	Sum of Se	erving Area	Sum of MEC-Total OSP	
Row Labels	Passed	Subscribers	Including Loops	Including Loops	Total Cost	t	Mainline Cost	Sum of MEC-Total OSP Drop Cost
Dominion	895	403	94.59	33.94	\$	8,170,679.00	\$5,889,226.80	\$1,129,109.63
Feeder	895	403	94.59	33.94	\$	8,170,679.00	\$5,889,226.80	\$1,129,109.63
MEC	1,146	516	209.83	43.46	\$	16,645,912.23	\$13,064,259.66	\$1,445,764.95
Feeder	1,146	516	209.83	43.46	\$	16,645,912.23	\$13,064,259.66	\$1,445,764.95
Grand Total	2,041	918	304.43	77.41	\$	24,816,591.23	\$18,953,486.47	\$2,574,874.58

	Grand Total Costs	Ş	24,816,591.23
	RDOF as Match		\$3,722,360
	Funding Required	\$	21,094,231.23
50%	VATI Match	\$	10,547,115.62
	Dominion Match	\$	7,041,569.37
	Remaining Match	\$	3,505,546.24

Summary Southern Brunswick, Southern Charlotte, Grensville, Halifax, Mecklenburg Combined Calculations

	Passings	Pro	ject Cost
Southern Brunswick	435		
Southern Charlotte	695		
Halifax	2945		
Mecklenburg	2712	\$	37,040,998.41
Greensville	2041	\$	21,094,231.23
Admin Costs		\$	200,000.00
Totals	8828	\$	58,335,229.65
VATI Request (BCHM)		\$	18,720,499.21
VATI Request Request (G)		\$	10,547,115.62
Brunswick Match			47,952.46
Charlotte Match			0
Greensville Match		\$	859,000.00
Halifax Match		\$	325,000.00
Mecklenburg Match		\$	300,000.00
Dominion Match		\$	21,821,225.51
Match Sub-total		\$	52,620,792.80
EMPOWER Match		\$	5,714,436.85

VATI Cost per Passing \$ 3,315.32

Lege	nd
Outside Plant	
Electronics	
Transport Electronics	
Land / Buildings	
Engineering	

The parameters listed below will feed into the cost estimate table. Any updates to these parameters will require the Pivot Table on the Data Summary tab to be refreshed.

Cost Estimate Parameters	Value
Estimated % of Aerial Mainline Cable	20%
Estimated % of Buried Mainline Cable	80%
Estimated Aerial Premises Passed	70%
Estimated Buried Premises Passed	30%
Subscriber Take-Rate	45%
Estimated Aerial Drop Footage	385.0
Estimated Buried Drop Footage	385.0
Estimated Loop % Per Route Mile for Express Cable	6.0%
Boring Percentage	30.0%
Plowing Percentage	70.0%
Add Footage for Aerial Drop Loops	60.0
Add Footage for Buried Drop Loops	60.0
Estimated Loop % Per Route Mile for Mainline Cable	11.0%
Estimated Loop % Per Route Mile for Mainline Cable	11.0%
Aerial Cost Per Drop Mile	\$ 33,264.00
Buried Cost Per Drop Mile	\$ 33,264.00
Aerial Cost Per Mainline Route Mile	\$ 57,276.61
Buried Cost Per Mainline Route Mile	\$ 63,505.45
Fiber Distribution Panel for Feeder 1 Fibers	\$ 1,750.00
OSP Splitter Cabinet Cost	\$ 19,000.00
1x4 Splitter Cost	\$ 160.00
1x8 Splitter Cost	\$ 320.00
1x32 Splitter Cost	\$ 2,160.81
Remote OSP Electronics Cost	\$ 38,000.00
Polymer Vault Cost	\$ 1,354.12
Fiber Frame Cost	\$ 17,500.00
Fiber Distribution Panel Cost	\$ 1,750.00
E7 Units Cost	\$ 779.45
GPON-8 Cards Cost	\$ 9,732.46
GPON OIM Class C+ Optics Cost	\$ 1,800.00
ONT Cost	\$ 220.00
Service Installation Costs (per Sub)	\$ 733.40
Electronics Access Installation Cost	7.5%
Electronics Access Contingency Cost	15.0%
OIM 10G Transport Cost	\$ 100.00
E7 10G Transport Cost	\$ 2,800.00
Electronics Transport Installation Cost	7.5%
Electronics Transport Contingency Cost	15.0%
Remote Site Acquisition & Preparations Cost	Formula
Pre-Loan Engineering Cost	0%
Engineering OSP Cost	12.0%
Engineering Electronics Cost	8.0%

Letters of Support

Southside Planning District's Universal Broadband Coverage Initiative

- 1. Virginia Senator Frank Ruff
- 2. L. Louise Lucas, President Pro Tempore, Virginia 18th Senatorial District
- 3. Virginia Congressman A. Donald McEachin
- 4. Virginia Delegate H. Otto Wachsmann, Jr.
- 5. Virginia Delegate Tommy Wright
- 6. Charlotte County Board of Supervisors
- 7. Greensville County Resolution of Support
- 8. Greensville County Economic Development
- 9. Greensville County Planning
- 10. Crater Planning District Commission
- 11. Mecklenburg County Board of Supervisors
- 12. Southside Virginia Community College
- 13. Southside Virginia Community College
- 14. The Institute for Advanced Learning and Research
- 15. Virginia Career Works
- 16. Halifax County Public Schools
- 17. Charlotte County Public Schools
- 18. Mid-Atlantic Broadband Communities Corporation
- 19. Southside Electric Cooperative
- 20. STEPS, Inc.
- 21. VCU Health Community Memorial Hospital
- 22. Charlotte County Fire and Rescue Association
- 23. Brunswick County Industrial Development Authority
- 24. Charlotte County Industrial Development Authority
- 25. Mecklenburg County Economic Development
- 26. Brunswick County Economic Development
- 27. Halifax County Chamber of Commerce
- 28. South Hill Chamber of Commerce
- 29. Brunswick Chamber of Commerce
- 30. Charlotte County Sheriff
- 31. Town of Phenix
- 32. Halifax County resident, Blair Marie Waller Hall
- 33. Halifax County resident, Rita Garber

SENATE OF VIRGINIA

FRANK M. RUFF, JR.

ALL OF CHARLOTTE, LUNENBURG, MECKLENBURG, AND NOTTOWNY COUNTIES; PART OF BRUNSWICK, CAMPBELL, DINWIDDIE, HALIFAX, PITTSYLVANIA, AND PRINCE GEORGE COUNTIES; AND PART OF THE CITY OF DANVILLE POST OFFICE BOX 332

CLARKSVILLE, VIRGINIA 23927



COMMITTEE ASSIGNMENTS:
AGRICULTURE, CONSERVATION AND
NATURAL RESOURCES
FINANCE AND APPROPRIATIONS
GENERAL LAWS AND TECHNOLOGY
PRIVILEGES AND ELECTIONS

August 18, 2022

Department of Housing and Community Development 600 East Main Street, Suite 300 Richmond, VA 23219

To Whom It May Concern:

I write this letter in support of the Southside Planning District Commission's, in collaboration with EMPOWER Broadband, application for the FY23 VATI Grant to help secure funding to ensure all households and businesses in Brunswick, Charlotte, Mecklenburg, and Halifax counties have access to broadband services with speeds at or above 100/20 Mbps. Many parts of these counties continue to struggle with little or marginal broadband service.

I greatly appreciate your consideration of their application for the FY23 VATI Grant. Broadband services are necessary for the future economic stability of our community.

Thank you in advance,

District 15

Senate of Virginia

SENATE OF VIRGINIA

L. LOUISE LUCAS

PRESIDENT PRO TEMPORE

18th SENATORIAL DISTRICT

ALL OF GREENSVILLE AND SUSSEX COUNTIES;

ALL OF THE CITY OF EMPORIA; PART OF BRUNSWICK,

ISLE OF WIGHT, SOUTHAMPTON, AND SURRY COUNTIES;

AND PART OF THE CITIES OF CHESAPEAKE, FRANKLIN,

PORTSMOUTH, AND SUFFOLK

POST OFFICE BOX 700

PORTSMOUTH, VIRGINIA 23705-0700



August 18, 2022

COMMITTEE ASSIGNMENTS: EDUCATION AND HEALTH, CHAIR COMMERCE AND LABOR FINANCE AND APPROPRIATIONS JUDICIARY RILLES

Dr. Tamarah Holmes
Director
Office of Broadband
Virginia Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219-2430

Dear Dr. Holmes,

I write today in support of Greensville County and EMPOWER Broadband's application to the Virginia Department of Housing & Community Development's (DHCD) Virginia Telecommunications Initiative (VATI) grant program. If approved, EMPOWER Broadband, Inc. will extend its existing fiber network, supplemented by its recent Rural Digital Opportunity Fund (RDOF) award, to deliver high-speed service to some 2,000 unserved and underserved addresses within Greensville County.

EMPOWER's application is a joint effort made in partnership with Greensville County where broadband capability is severely limited. I have been made aware that the residents and businesses within the locality genuinely struggle to receive acceptable internet speeds, much less speeds required to meet the newest broadband standard of 100Mbps download and 20Mbps upload.

EMPOWER's proposed solution will immediately provide symmetrical speeds up to 1 Gigabit per second upload and download. This will greatly enhance the area's ability to compete in today's marketplace as well as promote educational opportunities, economic development, and boost the medical accessibility of our citizens. I ask that you give this proposal every appropriate consideration.

With every sincere sentiment of respect and very warm personal regards, I am,

Very truly yours,

L. Louise Lucas

President Pro Tempore

A. DONALD MCEACHIN

4TH DISTRICT, VIRGINIA

Washington Office
314 Cannon House Office Building

Washington, D.C. 20515 (202) 225-6365

RICHMOND DISTRICT OFFICE 110 N. ROBINSON ST. SUITE 403 RICHMOND, VIRGINIA 23220 (804) 486-1840

SUFFOLK DISTRICT OFFICE 131 N. SATATOGA STREET, SUITE B SUFFOLK, VIRGINIA 23434 (757) 942-6050



Congress of the United States House of Representatives Washington, DC 20515-4604

COMMITTEE ON ENERGY AND COMMERCE

ENERGY

ENVIRONMENT AND CLIMATE CHANGE

COMMUNICATIONS AND TECHNOLOGY

COMMITTEE ON NATURAL RESOURCES

OVERSIGHT AND INVESTIGATIONS

ENERGY AND MINERAL RESOURCES

SELECT COMMITTEE ON THE CLIMATE CRISIS

August 17, 2022

Tamarah Holmes, Ph.D.
Director
Office of Broadband
Department of Housing and Community Development
600 East Main Street, Ste 300
Richmond, VA 23219

Dear Ms. Holmes:

I write to bring to your attention a joint application from Greensville County and EMPOWER for grant funding through the Virgina Telecommunication Initiative (VATI) grant program. I ask for your full and fair consideration of their request.

In today's world access to broadband internet is a necessity when performing nearly every daily function. Education, many professions, and medical necessities have seen a reformation during the unprecedented COVID-19 pandemic and the common need amongst all these functions is access to high-speed internet. Everyone from school age children to professional adults need access to broadband internet and now with a global pandemic changing daily life for everyone, access can be crucial to providing for your family, keeping children in school, and access to medical care around the clock.

Greensville faces unique challenges being a more rural county and having less houses per road mile. This creates a unique barrier to broadband access when working with providers to provide coverage for every County resident and property. Greensville has proposed a unique and innovative plan to meet these challenges; in partnership with a service provider to connect over 2000 properties and lay over 300 miles of mainline fiber to properties that have no service and some with very little. Access to high-speed internet is crucial for every home and nearly every new business; this coverage could encourage businesses to the area and offer more opportunities for telework in Greensville County.

As a Representative of a district that is largely rural, I will continue to support and advocate for high-speed internet access in underserved areas. Again, I ask for your full and fair consideration of Greensville County for grant funding through the VATI grant program.

Sincerely,

A. Donald McEachin Member of Congress

A. Donald M'Eachin



COMMONWEALTH OF VIRGINIA HOUSE OF DELEGATES RICHMOND

H. OTTO WACHSMANN, JR. POST OFFICE BOX 268 STONY CREEK, VIRGINIA 23882

SEVENTY-FIFTH DISTRICT

COMMITTEE ASSIGNMENTS:
PRIVILEGES AND ELECTIONS
COUNTIES, CITIES AND TOWNS
HEALTH, WELFARE AND INSTITUTIONS

August 19, 2022

Mr. Bryan Horn Virginia Department of Housing and Community Development 600 East Main Street, Suite 300 Richmond, VA 23219-2430

Dear Mr. Horn,

I write in strong support of expanding high speed internet services into Greensville County by recommending the approval of Empower Broadband's application to the Virginia Department of Housing & Community Development's (DHCD) Virginia Telecommunications Initiative (VATI) grant program. Once approved, Empower Broadband, Inc. will extend its existing fiber network to deliver high speed broadband to 2,041 unserved and underserved residences and businesses in Greensville County. This project will lay three hundred and one miles of mainline fiber and fifty-five miles of drop fiber.

Greensville County is a rural county with low population densities along the North Carolina border, and currently has very limited broadband coverage via cable service. Greensville County has become an economically depressed area which needs broadband services to expand its business options, educate its students and bring services that those in other areas of the state now know as a necessity. Unfortunately, this county has been split into three separate service areas and will also require two additional grants to service the entire county.

I support Empower's application fully in order to allow Greensville County to join the rest of the counties in the 75th House District so they will have a plan toward high speed Internet. Empower's proposed solution will provide internet speeds up to one gigabit per second upload and download. This is a necessity for our citizens.

I encourage the adoption of Empower's proposal and provide every appropriate consideration as Greensville County is in need of high speed Internet broadband. In the event that I might be of additional service, please do not hesitate to contact me directly.

Respectfully,

H. Otto Wachsmann, Jr.

75th District, Virginia House of Delegates



COMMONWEALTH OF VIRGINIA HOUSE OF DELEGATES RICHMOND

THOMAS C. "TOMMY" WRIGHT, JR.
POST OFFICE BOX 1323
VICTORIA, VIRGINIA 23974

SIXTY-FIRST DISTRICT

COMMITTEE ASSIGNMENTS: GENERAL LAWS (VICE-CHAIR) AGRICULTURE, CHESAPEAKE AND NATURAL RESOURCES

8/16/2022

Dr. Tamarah Holmes
Director, Office of Broadband
Department of Housing and Community Development VATI Program
600 East Main Street, Suite 300
Richmond, VA 23219

Dr. Tamarah Holmes,

I write this letter in full support of EMPOWER Broadband's application for a VATI grant to help secure funding to build fiber-to-the-home within EMPOWER's service footprint that struggle to receive broadband of 100/20 Mbps and that, to date, have not received any funding to provide such service. The application is being made in partnership with Mecklenburg, Brunswick, Charlotte, Halifax Counties, and the Southside Planning District Commission. Southside Virginia is severely underserved with broadband capability. This impacts many areas including limitations on educational opportunities, economic development, tourism, availability of medical resources, as well as personal growth.

I greatly appreciate your serious consideration in approving EMPOWER's grant application. Not only will this help with sustaining the future of advanced broadband services in their service footprint, but also promoting the future economic stability of our community.

Thank you,

Delegate Thomas C. "Tommy" Wright, Jr.

Thombalus



County of Charlotte Board of Supervisors

Phone 434-542-5117 434-542-5248

Post Office Box 608 250 LeGrande Avenue, Suite A Charlotte Court House, VA 23923-0608

Daniel N. Witt County Administrator www.charlottecountyva.gov

August 17, 2022

Virginia DHCD 600 E. Main Street, Suite 300 Richmond, VA 23210

RE: VATI 2023 Application - Attachment 10 Documentation of Matching **Funding**

DHCD Staff:

Charlotte County Board of Supervisors (the "BOS") was not asked to commit a local match in the Southside PDC (SS PDC) VATI 2023 Application. However, that Board supports the SS PDC application for the construction of the fiber to the home (FTTH) project.

We are very pleased to be associated with this application and feel that it will help us reach our goal of ubiquitous broadband service in our County.

Thank you for your consideration and potential partnership with the Southside PDC and Charlotte County.

Regards,

Daniel N. Witt,

County Administrator



County of Charlotte Board of Supervisors

Phone 434-542-5117 434-542-5248 Fax

Post Office Box 608 250 LeGrande Avenue, Suite A Charlotte Court House, VA 23923-0608

Daniel N. Witt County Administrator www.charlottecountyva.gov

August 17, 2022

Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing & Community Development **VATI Program** 600 East Main Street, Suite 300 Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Regional 2023 VATI Grant Application

Dear Dr. Holmes:

The Charlotte County Board of Supervisors is excited to have the opportunity to participate in a joint VATI application for expanded broadband access in the county. We understand that broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper.

The COVID-19 pandemic has increased our reliance on broadband while emphasizing how the lack of broadband access can mean citizens' loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

Broadband access is the top priority identified in our current strategic plan. We recognize the importance of providing broadband access to citizens in Charlotte County and are committed to helping address the broadband needs of our community. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Please consider our joint application for funding and help ensure our citizens, our businesses, and our communities grow and prosper.

Sincerely,

Gary D. Walker, Chairman

Gray D. Worlken

Charlotte County Board of Supervisor

RESOLUTION #22-32 OF SUPPORT FOR EMPOWER BROADBAND'S UNIVERSAL SERVICE COVERAGE AND VATI APPLICATION

WHEREAS, a significant number of families, students, businesses and personnel working from home who live and operate in Greensville County are relegated to complete their respective responsibilities without the benefit of much needed broadband services. Accordingly, our rural citizens are disproportionately offered unacceptable broadband alternatives while 97% of the Commonwealth's population is offered true high-speed internet. Greensville County is in desperate need of full broadband coverage and addressing the plight of those with no broadband access.

WHEREAS, economic development often remains out of reach to portions of our County, and further to that of our region, as adequate broadband is not available for business or the homes of prospective employees. Furthermore, achieved growth is limited to areas where high speed broadband infrastructure is available and subsequently demonstrates the inequity and disadvantages of living and owning property in unserved areas.

WHEREAS, traditional communication providers nor corporate business plans have provided necessary and essential services to rural areas with lower population density.

WHEREAS, EMPOWER's parent company, Mecklenburg Electric Cooperative, has served rural residents for over 80 years and has vast experience in providing utility services to rural areas and accordingly has cultivated the financial expertise to operate in low density and limited profit areas.

WHEREAS, EMPOWER's staff retains centuries of experience in telecommunications and broadband experience to Competitive and Incumbent local exchange areas within our region.

WHEREAS, EMPOWER has cultivated relationships to promote universal service coverage evidenced by those with Mid-Atlantic Broadband Communities Corporation, Dominion Energy, Southside Electric Cooperative, TRRC, USDA, DHCD, and many others.

WHEREAS, EMPOWER has demonstrated the experience and competency to manage and complete large utility infrastructure projects, including hundreds of miles of fiber optic cable, and delivered a network providing access to symmetrical speeds up to 1 Gigabit per second passing within 1000 feet of 7,196 premises across Southside Virginia.

BE IT THEREFORE RESOLVED, that this duly elected Board of Supervisors deems the delivery of Broadband of the utmost importance to serve the citizens of our County and its communities and to further remedy decades of population loss and the resulting loss of significant numbers of jobs. Additionally, as a part of Southside Virginia, which has experienced the contraction of population and revenues and accordingly requires an increased prorated share of Commonwealth investment to open our region and its substantial resources in people, infrastructure, and real estate to expand Virginia's comprehensive business environment.

BE IT FURTHER RESOLVED, that this Board of Supervisors expresses its full support and confidence in EMPOWER Broadband through its partnership with the Southside Planning District Commission, to once and for all, provide a solution and deliver universal broadband coverage to Greensville County.

BE IT FINALLY RESOLVED, that this Board of Supervisors expresses its full support and confidence in EMPOWER in its application to the Department of Housing and Community Development's Virginia Telecommunications Initiative to complete this critical task.

James R. Brown, Chair

ans

Greensville County Government Building

Brown

ATTEST:

Denise A. Banks, Clerk

Greensville County Board of Supervisors

Adopted this 7th day of September, 2021.

Dr. Charlette T. Woolridge County Administrator

Gary. L. Cifers
Assistant County Administrator

Natalie B. Slate
Director of Economic Development

Dr. Terrence Wood
Director of Human Resources

Russell Slayton
County Attorney

GREENSVILLE

VIRGINIA

... Growing Towards New Horizons

Belinda Astrop Vice-Chair Election District 1

James Brown
Election District 2

William Cain Election District 3

Tony Conwell Chair Election District 4

August 9, 2022

Mr. Linwood E. Pope, Jr. Director of Planning 1781 Greensville County Circle Emporia, Virginia 23847

Dear Mr. Pope,

I write you on behalf of the Economic Development Department of Greensville County in support of Greensville County's application to VATI for funding of broadband implementation. We strongly support this project and the focus on infrastructure development.

Our goal is to attract business and industry to the community. Modernization of infrastructure and services like broadband internet are vital to attract clients. Broadband capabilities are essential for businesses and industries to compete in our community on a global level. This project will assist the community in bringing broadband access to a larger portion of the County.

Investment in broadband infrastructure is both an objective of Goal 4 and a performance measure under Goal 5 of the Comprehensive Economic Development Strategy of the Crater Economic Development District, of which Greensville County is a member. These goals are to (4) encourage and facilitate the provision of well planned, state-of-the-art public infrastructure that will attract higherwage employers and to (5) enhance the innovation/information technology ecosystem.

In conclusion, I fully support all the efforts of Greensville County to seek federal VATI funding through the Virginia Telecommunication Initiative. We are committed to supporting this project and look forward to ensuring potential clients have a robust broadband network available for their operations.

Sincerely,

Natalie B. Slate

Natalie B. Slate Director of Economic Development Dr. Charlette T. Woolridge County Administrator

Gary L. Cifers
Assistant County Administrator

Natalie B. Slate Director of Economic Development

Dr. Terrence WoodDirector of Human Resources

Russell O. Slayton, Jr.
County Attorney

August 9, 2022



Belinda D. Astrop Vice-Chairman Election District 1

James R. Brown Election District 2

William B. Cain Election District 3

Tony M. Conwell
Chairman
Election District 4

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development VATI Program
600 East Main Street, Suite 300
Richmond, VA 23219

Dear Dr. Holmes:

I write this letter in full support of EMPOWER'S Broadband application for a FY2023 DHCD Virginia Telecommunication Initiative (VATI) broadband grant to secure funding to build a fiber network for all unserved and underserved areas within Greensville County. The residents and businesses in portions of our locality struggle to receive broadband speeds of 100/20 Mbps.

I am confident their aggressive strategy will provide highspeed broadband to the Greensville County area and across Southside Virginia. We are also aware that EMPOWER's solution will immediately provide 100Megabits per second speeds as recommended by the Treasury Department in its most recent guidance on broadband. Accordingly, we enthusiastically support Mecklenburg Electric Cooperative and EMPOWER'S Broadband long-term fiber solution.

EMPOWER's VATI application is an effort made by Greensville County where broadband capability is severely limited. Like you, we regularly hear of the impacts and limitations on educational opportunities, economic development, tourism, medical resources, as well as personal growth. Together, we must create lasting solutions to shatter the overwhelming digital divide experienced in this region of the Commonwealth.

In closing, I greatly appreciate your serious consideration in approving EMPOWER's grant application. Not only will the award of this funding sustain the future of advanced broadband services in the County's footprint, it will also promote future economic stability for our families and businesses.

Sincerely,

Linwood E. Pope, Jr. Director of Planning

LEP, Jr./tcp

CRATER PLANNING DISTRICT COMMISSION

Monument Professional Building • 1964 Wakefield Street • Post Office Box 1808 • Petersburg, Virginia 23805 PHONE: (804) 861-1666 • FAX: 804-732-8972 • E-MAIL: info@craterpdc.org • WEBSITE: www.craterpdc.org

August 8, 2022

Mr. Linwood E. Pope, Jr. Director of Planning 1781 Greensville County Circle Emporia, Virginia 23847

Dear Mr. Pope,

I write you on behalf of the Crater Planning District Commission in support of Greensville County's VATI application for broadband implementation. We strongly support this project and the focus on infrastructure development.

Our mission is to strengthen the quality of life throughout the Crater District by serving as a regional forum of member local governments to address issues of regional significance, providing technical assistance to localities and promoting and enhancing the collective consensus on the economic, transportation, social, environmental and demographic interests of the region. This project closely aligns with our mission, by increasing community enhancement and development throughout Greensville County.

Ten small localities in southern Virginia comprise the Crater Economic Development District, home to 186,938 people according to the 2020 US Census. Population growth is stagnant with an increase shy of 7,000 since 2010. A lack of investment in modernization of infrastructure and services like broadband internet accompanies this last of growth.

Investment in broadband infrastructure is both an objective of Goal 4 and a performance measure under Goal 5 of the Comprehensive Economic Development Strategy of the Crater Economic Development District. These goals are to (4) encourage and facilitate the provision of well planned, state-of-the-art public infrastructure that will attract higher-wage employers and to (5) enhance the innovation/information technology ecosystem.

In conclusion, I fully support the efforts of Greensville County to seek federal FY 23 VATI funding through the Virginia Telecommunication Initiative. We are committed to supporting these three Projects with Empower, Charter Communications and Verizon and look forward to continuing our collaborative efforts to enhance the Region.

Sincerely,

Dr. Lydia Pettis Patton Interim Executive Director

Crater Planning District Commission



Mecklenburg County Board of Supervisors

Post Office Box 307 . Maydton, Hirginia 23917

BOARD OF SUPERVISORS Glenn Barbour

Chairman
Glanzy M. Spain, Jr.
Vice-Chairman
David Brankley
Andy Hargrove
Jim Jennings
Charles Jones
Claudia H. Lundy
Tom Tanner
Sterling Wilkinson

August 8, 2022

Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing & Community Development VATI Program 600 East Main Street, Suite 300 Richmond, VA 23219

Dear Dr. Holmes,

I am writing in support of our VATI application for Mecklenburg County, along with our partners, Brunswick County, Halifax County and the Southside Planning District Commission which have worked on developing a proposal with EMPOWER Broadband. This project will cover areas that continue to be unserved or underserved even with our previous VATI grants. The areas are throughout Mecklenburg County and these citizens desperately need fiber to the home, which EMPOWER Broadband will provide in a timely and cost effective method.

Mecklenburg County has seen an increased need for reliable high-speed internet for our citizens, especially since the spring of 2020 with the onset of COVID. We have more homeowners who are working from home, especially with a large number of second homes. These individuals have moved out of large population cities to our area and need internet to continue their jobs. We continue to receive calls from our citizens regarding when we the County will be able to collaborate with a provider to provide internet to them.

As such, we ask the Department of Housing and Community Development, to support our efforts to provide this needed service to our part of Southside Virginia. For too long we have suffered by being left behind our more urban neighbors. This must change for all of Virginia to prosper, not just the Golden Crescent. The Mecklenburg County Board of Supervisors adopted an MOU with EMPOWER Broadband and Dominion Power at a meeting on July 12, 2021. We see the future needs for our citizens being met by EMPOWER Broadband in partnership with our neighboring Counties.

Sincerely

H. Wayne Carter, III. County Administrator



September 10, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

Dear Dr. Holmes:

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Southside Virginia Community College (SVCC) is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

SVCC serves over 3,000 students in a 4,200 square mile service area covering 10 counties. The availability of broadband access to our students is crucial for their success. In a geographic area that already deals with many barriers, this project will be a real boost.

Thank you for your consideration of this important project.

Sincerely,

Quentin R. Johnson

President

Christanna Campus 109 Campus Drive, Alberta, VA 23821434-949-1000 John H. Daniel Campus 200 Daniel Road, Keysville, VA 23947 434-736-2000



SOUTHSIDE VIRGINIA COMMUNITY COLLEGE

August 31, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, VA 23219

RE: <u>Letter of Support for Charlotte County's Joint VATI Grant Application</u>

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

Southside Virginia Community College serves a ten-county, 4,200 square mile service area in rural southside Virginia. Our college operates out of two full-service campuses and one, the John H. Daniel Campus, is in Charlotte County. In the last fiscal year, the college provided educational opportunities to over 4,000 students. We know firsthand the challenges our students face with limited or no available broadband services.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our students, our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts. Thank you.

Sincerely,

Quéntin R. Johnson, Ph.D.

President

Christanna Campus 109 Campus Drive, Alberta, VA 23821.......434-949-1000 John H. Daniel Campus 200 Daniel Road, Keysville, VA 23947...... 434-736-2000



September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

On behalf of the Institute for Advanced Learning and Research (IALR), I am writing to express support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Technology equity, if the form of reliable broadband infrastructure, is essential to the survival and continued transformation of our communities. Affordable and reliable access to broadband expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

As we celebrate the 85th anniversary of the Rural Electrification Act, we face another national imperative to equip our citizens with the requisite utilities to advance the common good. IALR, in our mission to support regional economic transformation, is supportive of this request.

Sincerely,

Mark Gignac

Executive Director



SOUTH CENTRAL REGION

285-C George Washington Highway
P.O. Box 580
Charlotte Court House, Virginia 23923

September 10, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

The South Central Workforce Development Board is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

Sincerely,

Terra Bailey Napier

Executive Director, South Central Workforce Development Board



1030 Mary Bethune Street, Suite 100 P. O. Box 1849 Halifax, Virginia 24558

(434) 476-2171 Fax (434) 476-1858 www.halifax.k12.va.us Dr. Mark Y. Lineburg Superintendent of Schools

(434) 476-3120 Fax (434) 476-3121 mineburg@halifax.k12va.us

September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dear Dr. Holmes:

Halifax County Public Schools is writing to express its support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

Our region is faced with real challenges of having our students and their families obtain affordable access to broadband internet services. Our instructional methods and technology continue to progress to more and more on-line learning and resources, and without broadband access, many of our students and their families will continue to fall behind the digital divide.

Sincerely,

Mark Y. Lineburg, Ed.D.— Superintendent of Schools

MYL/rcm

CARMALITA ESCOTO County Seat

TERESA DUNAWAY
Red Oak / Wylliesburg
GLORIA TALBOTT
Drakes Branch
R. B. "JAY" GEORGE
Keysville



ROBBIE MASON, SUPERINTENDENT
P.O. BOX 790 • 250 LEGRANDE AVENUE
CHARLOTTE COURT HOUSE, VIRGINIA 23923
434/542-5151 FAX 434/542-4261

R. "SCOTTY" HAMLETT Cullen / Red House ROBERT JOHNSON Aspen / Phenix JON BERKLEY Bacon / Saxe DANA L. RAMSEY Clerk of Board

September 7, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

As Superintendent for Charlotte County Public Schools, I have seen first-hand how our students have been impacted by not having broadband access in our area. COVID-19 resulted in our schools being closed during the last quarter of the 2019-2020 school year and periodically during the 2020-21 school year. Out of necessity, virtual instruction became a primary form of instructional delivery. Many of our students did not have any internet access while others had satellite internet that is very expensive and is not capable of processing the amount of information required for virtual instruction. Many of our teachers were not equipped with the necessary internet capabilities to provide virtual instruction or monitor student progress outside of the school building. As COVID variants continue to develop, our students and teachers will need reliable broadband access to ensure continuity of learning.

In addition to COVID-related reasons, reliable broadband is necessary to achieve equity for the students within our county as well as equity between our county's students and students from other divisions. Lack of broadband access diminishes our students' ability to access information,

apply to colleges, seek financial aid, and enroll in virtual courses such as Physics and Calculus. Students need reliable internet to be successful in such courses that we are not able to staff in a traditional in-person manner. We are far behind other localities in our ability to offer our students broadband internet options at home. It is my belief that our students should not be penalized for where they live and should be afforded the same opportunities as students in other areas that have access to reliable broadband.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts.

Sincerely,

Robbie W. Masor Superintendent

Charlotte County Public Schools



September 9, 2021

Tamarah Holmes, Ph. D Director, Office of Broadband Department of Housing and Community Development 600 East Main Street #300 Richmond, VA 23219

Dear Dr. Holmes:

The Mid-Atlantic Broadband Communities Corporation (MBC) is pleased to offer this letter of support to Mecklenburg Electric Cooperative and their EMPOWER Broadband affiliate application for VATI funding.

MBC was formed in 2004, in part because of the strong support of the electric cooperatives in Virginia, who recognized the need to have an open-access fiber optic network that could serve as an economic development catalyst and help improve middle mile access throughout rural southern Virginia. In the last few years as the electric cooperatives took another leadership position and started to build new business ventures to supply critical last mile broadband connections, Mecklenburg Electric and their Empower subsidiary were first in line to partner with MBC once again to utilize the middle mile network to enable their last mile network plans and extend their critical services to more of our rural residents.

MBC and MEC/Empower have worked hand in hand over the last few years to leverage the middle mile fiber network made possible by investments from the Commonwealth of Virginia and MBC is delighted to be able to support the MEC/Empower VATI application. MBC proposes to provide 22 miles of fiber to MEC/Empower at no cost to help their expansion of middle mile services in Mecklenburg County. This contribution amounts to a \$1,386,000 contribution to the overall project.

MBC is proud to support MEC/Empower broadband project that will provide universal coverage in the region, and we appreciate all of your support to make this project a reality for the citizens of southern Virginia

Sincerely,

Tad Deriso

MBC President & CEO

July 21, 2021

Tamarah Holmes, Ph. D
Director, Office of Broadband
Department of Housing and Community Development
600 East Main Street #300
Richmond, VA 23219

Dr. Holmes:

Southside Electric Cooperative proudly serves nearly 60,000 Member-Owners across portions of 18 Virginia Counties. Many of these areas are very rural and they have endured the heavy burden impressed upon our communities by COVID-19; and most rural members have also endured the overwhelming lack of adequate broadband. Thankfully, some of our service area is afforded acceptable broadband, however, others remain woefully unserved.

Since 2018, we have watched as our sister Cooperative, Mecklenburg Electric Cooperative (MEC) began building a successful and transformative affiliate to meet the broadband needs of those forgotten by the investor-owned communications companies. Through EMPOWER Broadband, they have been deploying fiber across Southside Virginia and offering world class broadband service, and they are making a difference to those living in our region. Following in the steps of legendary electric cooperative pioneers ... EMPOWER is similarly bridging the digital divide for many in Southside Virginia.

It is because of their demonstration to successfully deliver this service, we wish to pledge our support and assistance to their effort to deliver County-wide fiber solutions in Mecklenburg and Brunswick Counties, both areas we jointly serve.

To support this effort, SEC, has executed a pole attachment agreement that will allow EMPOWER to leverage our existing electric infrastructure to deploy fiber in these areas and assist in meeting the commitment laid out in their VATI application with the Planning District Commission. We are confident they'll do exactly as documented in their application.

Additionally, as you review applications, we encourage you consider MEC's service to its membership, and the adjoining communities. MEC has been vested in the area for over 80 years and has engaged in fiber deployment to meet its members' needs, and at their request. I take this opportunity to remind you that service providers who are owned by those they serve are engaged in a significantly different charter than those who seek opportunities to bolster corporate profits and follow failed traditional communication models which deliver service solely through government funding. EMPOWER is capable and will deliver broadband as its parent company has done with electric for many decades.

•Tamarah Holmes, Ph.D July 21, 2021 Page 2 of 2

In closing, we jointly thank you for your support of EMPOWER's application and for ensuring that our region, and our members, are given the opportunity to succeed. Additionally, we thank you in advance for supporting EMPOWER Broadband, a company that will provide a long-term solution and long-term representation to Southside Virginia.

Respectfully,

Jeffrey S. Edwards

Affro I Edvardo

President/CEO



225 Industrial Park Rd. Farmville, VA 23901 | (434) 315-5909

August 30, 2021

Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing & Community Development VATI Program 600 East Main Street, Suite 300 Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

STEPS, Inc. is a 501c3 not for profit organization that provides five (5) empowerment services to the citizens in Charlotte County:

- 1. Head Start We operate an Early Childhood Education Center in Charlotte Court House and are challenged daily with lack of connectivity. Last year during the peak of the pandemic, we provided virtual instruction to our enrolled infants, toddlers, preschool children and pregnant mothers. However, it was often frustrating when the parents were not able to connect, stay connected or have a strong enough signal that would allow us to see each other. Based on current pandemic numbers, I am fearful we will once again find ourselves providing virtual instruction and without consistent and reliable internet, the experience is even more frustrating for all involved.
- 2. WIOA Out of School Youth Program STEPS provides a Workforce Innovation and Opportunity Act (WIOA) program serves out-of-school youth 16 to 24 years of age that do not have a job. This program provides work-readiness training, educational training, work experiences, and assistance finding self-sustaining employment by providing supportive services to overcome barriers. Again, it is extremely frustrating to the young people who want to engage in our program but are unable to communicate without adequate broadband access. Often, we have to rely on cell service and that is not ideal either. These youth are already facing barriers to success and the lack of access to what should be considered an essential utility is heartbreaking.

- 3. Employment for Citizens with Disabilities We provide several employment related services to citizens living with disabilities in Charlotte County. Assistive Technology is often the best way to "level the playing field" for individuals with disabilities, but again, without accessible, reliable and affordable internet, job search, completing online applications and participating in virtual interviews is difficult and extremely frustrating.
- 4. Workplace Supports Program This employment/placement program assists TANF recipients to locate and sustain employment with the goal of exiting public assistance and reaching independence. Our staff work directly with clients of the Charlotte County Department of Social Services. We provide soft skills training classes that include resume writing, how to complete an application, appropriate attire, and communication for an interview, etc. COVID has severely limited out face to face interactions and most trainings are conducted virtually. But again, Charlotte County citizens must leave their homes and travel to sites where broadband can be accessed.
- 5. Senior Community Service Employment Program (SCSEP) Through Title V of the Older Americans Act, STEPS is honored to work with our senior population to upgrade their work skills through training provided at community partner/host agencies. While most seniors have a tremendous work ethic, many are woefully behind in technology skills. And for those seniors living in Charlotte County, they must often travel outside of their home county to secure that onsite training.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts. Should you have any questions or like to discuss our services further, please do not hesitate to contact me.

Most Sincerely.

Sharon L. Harrup, MS

Zaras J. Marries

President & CEO

sharrup@STEPS-inc.org (434) 390-0692 mobile

www.STEPS-inc.org



Community Memorial Hospital

Community Memorial Hospital

1755 North Mecklenburg Avenue South Hill, Virginia 23970

O 434.447.3151 F 434.584.5455

September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

VCU Health-Community Memorial Hospital is writing to express our backing of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Dependable, consistent broadband infrastructure is essential to the survival of our communities.

An expansion would provide educational and employment opportunities, enhance healthcare, and would greatly advance the quality of life for our residents. Because of the pandemic and trying to maintain public safety, we have worked to try and provide virtual care to our residents, but many residents do not have reliable internet coverage to make this a reality for many in our community. This coverage would be critical to help Southside Virginia have a healthier community, as it is one of the least healthy regions in the Commonwealth.

Additionally, as we try to recruit trained medical professionals to the area, internet coverage is critical to recruit and retain these professionals to live and work in this underserved area. It is critical that rural underserved areas have this access to make it a better option for residing in this area.

I support this application and would welcome broadband expansion to this region.

Sincerely,

Ă. Todd Howell, FACHE

Vice President for Professional Services

September 2, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

Not having broadband capabilities for our Fire and EMS system puts us at a disadvantage and to a certain extent jeopardizes public safety. It is critical in today's Covid world that our ambulances have the ability to connect to area hospitals. When using telemedicine, in many cases patients can be treated at the scene without transporting them to overcrowded facilities. On the Fire side, there are many programs that we could utilize to enhance firefighters' safety while operating on emergency scenes.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts.

Sincerely,

Walter T. Bailey, President Charlotte County Fire and Rescue Association



September 8, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

The Industrial Development Authority of Brunswick County is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival and growth of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents. We must have Broadband Coverage for all of our citizens. We whole-heartedly support any effort that will bring Broadband to our citizens.

Sincerely,

Michael Dotti

Executive Director,
Brunswick County IDA

Charlotte County Industrial Development Authority

P. O. Box 608 Charlotte C.H., VA 23923

September 2, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VAT! Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

The Charlotte County IDA is writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

The IDA is tasked with working to bring industry and business to the County. There are locations that have been overlooked for development because in today's world, access to broadband is a necessity. We believe that universal broadband will make the county more marketable and inviting because we already have low tax rates and real estate costs. Broadband will also provide opportunities for those who want to work from home and require Internet. This grant provides and amazing opportunity for the County and its citizens.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts.

Sincerely,

Ralph, 'Red' Moore

Chairman, IDA Charlotte County

Loepe L. more



September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

The Mecklenburg County Office of Economic Development is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities and our growth. It is essential for attracting new industries, as well as, people to work in those new industries. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

We strongly support the efforts of the Southside Planning District Commission and ask that you do as well.

Sincerely,

Angie D. Kellett

Director of Economic Development

Mecklenburg County, VA



County of Brunswick

OFFICE OF THE ECONOMIC DEVELOPMENT DIRECTOR

POST OFFICE BOX 399 LAWRENCEVILLE, VA 23868 PHONE - (434) 848-3107 FAX - (434) 848-0424

September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

The County of Brunswick is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents. This letter serves as an official notice that the County of Brunswick wholeheartedly supports this effort.

The COVID-19 pandemic greatly magnified our community's large problem of limited or no access to reliable, high speed internet services. As businesses and schools were shut down and families were working and attending school virtually, it became more and more evident that this limited or non-existent internet access negatively impacted daily life for our citizens. Disconnected communities struggle to retain existing businesses due to slow, sporadic, or limited broadband services. Broadband is a necessity in the twenty-first century economy and it is beyond time to invest in the infrastructure to make internet access available to all citizens in rural Southside Virginia.

We are excited about the Southside Planning District Commission's Universal Broadband Coverage and what it would mean to the citizens of Brunswick County. If you have questions, or need additional information, feel free to contact me at 434-848-3107 or via email at areynolds@brunswickco.com.

Anneua Jarrett Reynolus

Director of Economic Development

cc: Ms. Leslie Weddington, Interim County Administrator Board of Supervisors



PO Box 399 South Boston, Virginia 24592 (434) 572-3085 www.halifaxchamber.net

September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, VA 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dear Dr. Holmes:

On behalf of the Halifax County Chamber of Commerce Board of Directors, I am writing to express our support of the Southside Planning District's Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is imperative to the survival of rural communities such as Halifax County.

Broadband expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents. The lack of broadband access in Halifax County is a significant barrier in our community. Virtual learning continues to be a challenge for households with insufficient or no internet access. Even though many children are in schools, some continue to use virtual learning and others must still submit work electronically. The lack of broadband also impacts our health care system as we are relying heavily on telemedicine. As an unserved rural area with limited internet services, we face many challenges including limited medical resources and distance between patients, physicians, specialists and facilities. This grant will enhance our broadband, empower us through information, and bring the world to us through a simple stroke of a keyboard. Therefore, it is extremely important that VATI grant funding be obtained to provision for much needed broadband service to our area.

We strongly urge the Department of Housing and Community Development to fund this VATI grant application, not only will this help with sustaining the future of advanced broadband services in the region, but also promoting the future economic stability of our community.

Sincerely,

Mitzi T. McCormick President and CEO

Mitzi & McCornick



September 9, 2021

September 8, 2021
Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

On behalf of the South Hill Chamber of Commerce, I am writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

One of the most frequent concerns that we hear from our members and members of our community relates to the access of reliable and accessible internet/broadband services in our rural community.

Completion of this project will greatly enhance the quality of life of all of our community, and is vitally important to the region.

The South Hill Chamber of Commerce strongly supports the Universal Broadband Coverage Initiative.

Sincerely,

-Shannon W. Lambert, Executive Director

South Hill Chamber of Commerce

(434) 447-4547

shannon@southhillchamber.com



Brunswick Chamber of Commerce

400 NORTH MAIN STREET LAWRENCEVILLE, VIRGINIA 23868 PHONE (434) 848-3154 brunschamber@lawrencevilleweb.com



September 9, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for the Southside Planning District Commission's Universal Broadband Coverage Initiative

Dr. Holmes:

The Brunswick Chamber of Commerce is writing to express our support of the Southside Planning District Commission's Universal Broadband Coverage Initiative to provide broadband access across the Region. Reliable broadband infrastructure is essential to the survival of our communities. It expands educational and employment opportunities, enhances healthcare, and greatly improves the quality of life for our residents.

A reliable broadband network will enable our residents to overcome geographical distances, empower us through information, and bring the world to us through the touch of a keyboard. Brunswick County is an underserved rural area with limited modern internet services. We face many challenges including limited medical resources and distance between patients, physicians, specialists and facilities. The rural nature of our area does not allow our students to receive equitable broadband resources as other students in more urban areas. Our community currently lacks the research; distance learning, video and other tools that advanced broadband can bring to a rural school. Therefore, it is extremely important to provide much needed broadband service to our area.

The Brunswick Chamber of Commerce is an organization of community, business, educational and civic leaders bonded together through mutual interests in promoting the well-being of Brunswick County as a desirable community in which to live, to rear our families, and to conduct our businesses. The lack of adequate broadband in Brunswick hinders our County in becoming viable again. Our existing businesses do not have the tools necessary to be relevant in today's world and it limits our ability to attract new business to the area which is the lifeblood to our revitalization efforts. An improved broadband service would begin to fill these gaps.

Sincerely,

Wendy F. Wright

Wendy F. Wright, Executive Director Brunswick Chamber of Commerce

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

Broadband capability will improve policing operation in Charlotte County at which can become critical at times. This can be done through the increase of information sharing, reduction of time spent on administration task, and improvement of response time. As patrol requires considerable time and resources the improvements would allow patrol officers to engage more with the community and free up additional resources to use for crime prevention or other activities. The upgrade that the department would experience with Broadband through quality and capacity of communication is always an asset. Benefits such as increased access to timely information, increased information flow, and improved quality can make our community a safer place to live. Broadband will allow patrol officers more information when approaching an encounter thus improving officer and community safety. Citizens would be provided with more capability of using the Broadband to fall back on when police presence is needed when cellular data isn't available or of the poor quality that is available at this time.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts.

Sincerely, Steen Should

Royal S. Freeman, Sheriff County of Charlotte

September 2, 2021

Dr. Tamarah Holmes
Director, Office of Broadband
Virginia Department of Housing & Community Development
VATI Program
600 East Main Street, Suite 300
Richmond, Virginia 23219

RE: Letter of Support for Charlotte County's Joint VATI Grant Application

Dear Dr. Holmes:

We are writing to express our support of Charlotte County's joint VATI application for expanding broadband access in the county. Broadband access can greatly improve citizens' access to education, healthcare, employment opportunities, and public services, thereby improving citizens' quality of life and their ability to compete and prosper. The COVID-19 pandemic has increased reliance on broadband while emphasizing how the lack of broadband access can mean loss of access to basic services. While Charlotte County's topography and low population density make universal broadband access a challenge, it does not diminish our citizens' need for that access.

The Town of Phenix is one of four small towns located within the county. Due to a recent change with the local school, we lost our limited broadband capabilities. As a result, one of our few businesses was forced to move outside the area. This move resulted in a loss of tax revenue as well as jobs. Not having broadband capabilities is crippling our ability to recruit businesses to come to our Town. Additionally, we are an aging community and many of our older citizens want to utilize telemedicine and are unable to do so due to the lack of broadband.

We recognize the importance of providing broadband access to citizens in Charlotte County. The proposed broadband expansion will increase educational opportunities and economic growth locally and regionally. Charlotte County's proposed investment in broadband infrastructure utilizing a VATI Grant can help our citizens, our businesses, and our community grow and prosper. Please consider their application and know we will stand in support of their efforts.

Sincerely,

Walter T. Bailey, Phenix Town Manager

Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing & Community Development VATI Program 600 East Main Street, Suite 300 Richmond, VA 23219

Dear Dr. Holmes:

I write this letter in full support of EMPOWER Broadband's application for a VATI grant to help secure funding to build fiber-to-the-home within EMPOWER's service footprint that struggle to receive broadband speeds of 25/3 Mbps and that, to date, have not received any funding to provide such service. The application is being made in partnership with Mecklenburg, Brunswick, Charlotte, Halifax counties and the Southside Planning District Commission.

I am born, raised, and currently reside next door to my childhood home in Northern Halifax County on Golden Leaf Road. My husband and I have three children who attend Sydnor Jennings Elementary School. Last school year was extremely difficult because the majority of the year was virtual and with no options for internet we had to use the hotspots on our cell phones. Needless to say this was not an ideal situation as it was not very reliable.

I work full time on our family farm which is also located on this same road. If you are not aware, farming now involves a large amount of necessary paperwork. If we were able to have reliable internet we could use our time more efficiently going online to complete the forms. We also have a direct sales business with our farm raised beef. It would be beneficial to us to be able to have a website to reach more customers. Without access to a reliable internet, we aren't able to do that.

There are numerous homes on our road and each residence has its own unique wishes for broadband. I have family members who have medical devices that aren't able to be used properly due to lack of internet. My aunt travels to Lynchburg every 3 months so that her pacemaker can be read. However, if she had access to reliable internet she wouldn't have to do that because it would be read from her home.

Southside Virginia is severely underserved with broadband capability. This impacts many areas to include limitations on educational opportunities, economic development, tourism, availability of medical resources, as well as personal growth. I greatly appreciate your serious consideration in approving EMPOWER's grant application. Not only will this help with sustaining the future of advanced broadband services in their service footprint, but also promoting the future economic stability of our community.

Thank you,

Blair Marie Waller Hall Residence of Halifax County 434.222.8509 BlairMWHall@gmail.com Dr. Tamarah Holmes Director, Office of Broadband Virginia Department of Housing & Community Development VATI Program 600 East Main Street, Suite 300 Richmond, VA 23219

Dear Dr. Holmes:

I am writing to beg for your help to move forward with this Grant to provide our community with Empower Broadband to our under served area. Our children are our future and they desperately need these services for virtual learning which is totally unavailable in this area. Teachers would be able to teach virtually from home, which would greatly increase the educational abilities of our youth, college students, as well as the entrepreneur's that require high speed internet to send and receive contracts, farmer's to order supplies, mechanics to order parts, realtors to search properties, our Fire Department to provide reports to the State and also to apply for Grants to meet their growing needs. We need your full support for this opportunity to advance our community into the 21st century!

Southside Virginia/Nathalie is severely underserved with broadband capability. This impacts many areas to include limitations on educational opportunities, economic development, tourism, availability of medical resources, as well as personal growth.

I greatly appreciate your serious consideration in approving EMPOWER's grant application. Not only will this help ,with sustaining the future of advanced broadband services in their service footprint, but also promoting the future economic stability of our community.

Thank you,
Rita Garber
rollinghillsplantation@gmail.com
434-349-6700
434-222-3545
1124 Buckskin Creek Road
Nathalie Virginia
24577

Form 477 Filing Summary

FRN: 0027843333

Data as of: Dec 31, 2021

Operations: Non-ILEC **Submission Status:**Revised - Submitted

Last Updated: Aug 5, 2022 03:29

Filer Identification

Section	Field	Response
Filer Information	Company Name	EMPOWER Broadband, Inc.
	Holding Company Name	Mecklenburg Electric Cooperative
	Filing Type	Non-ILEC
	SAC ID	199022
	499 ID	832934
Data Contact Information	Data Contact Name	Dwayne L Long
	Data Contact Phone Number	(434) 372-6125
	Data Contact E-mail	dlong@meckelec.org
Emergency Operations Contact Information	Emergency Operations Name	Dwayne L Long
	Emergency Operations Phone Number	(434) 372-6125
	Emergency Operations E-mail	dlong@meckelec.org
Certifying Official Contact Information	Certifying Official Name	Dwayne L Long
	Certifying Official Phone Number	(434) 372-6125
	Certifying Official E-mail	dlong@meckelec.org

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	CLECALL_add_NC.csv	Aug 5, 2022 03:21 PM	1,050
Fixed Broadband Subscription	477_Speeds_Dec_21 - fix.csv	Aug 5, 2022 03:26 PM	105
Fixed Voice Subscription	477_Voice_Dec_21.csv	Aug 5, 2022 03:21 PM	22

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State DBA Name	Technology	Blocks
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State	DBA Name	Technology	Blocks
North Carolina	EMPOWER BROADBAND, INC.	Optical Carrier/Fiber to the End User	14
Virginia	EMPOWER BROADBAND, INC.	Asymmetric xDSL	313
		Optical Carrier/Fiber to the End User	658
		VDSL	65
Total			1,050

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

			Subscriptions				
State	Technology	Census Tracts	Consumer	Business/Govt.	Total		
North Carolina	Asymmetric xDSL	6	8	0	8		
	Optical Carrier/Fiber to the End User	7	87	0	87		
Virginia	Asymmetric xDSL	27	734	11	745		
	Optical Carrier/Fiber to the End User	65	1,207	49	1,256		
Total		105	2,036	60	2,096		

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
3.000	0.384	2	0	2
3.000	3.000	59	3	62
5.000	0.512	2	0	2
5.000	5.000	105	3	108
10.000	1.000	1	0	1
10.000	10.000	570	5	575
25.000	25.000	4	0	4
50.000	50.000	1,029	29	1,058
100.000	100.000	219	19	238
300.000	300.000	30	0	30
1,000.000	1,000.000	15	1	16
Total		2,036	60	2,096

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Dewnstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Gevt.	Tetal
Asymmetric xDSL	3.000	0.384	2	0	2
	3.000	3.000	59	3	62
	5.000	0.512	2	0	2
	5.000	5.000	105	3	108
	10.000	1.000	1	0	1
	10.000	10.000	570	5	575
	25.000	25.000	3	0	3
Optical Carrier/Fiber to the End User	25.000	25.000	1	0	1
osei .	50.000	50.000	1,029	29	1,058
	100.000	100.000	219	19	238
	300.000	300.000	30	0	30
	1,000.000	1,000.000	15	1	16
Total			2,036	60	2,096

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
North Carolina	0	0	15	15
Virginia	0	0	678	625
Total	0	0	693	640

Fixed Voice Subscription (iVoIP)

Over-the-Top VoIP Subscriptions by State and End User Type

State	Total	Consumer	Business/Govt.
North Carolina	0	0	0
Virginia	0	0	0
Total	0	0	0

All Other VoIP Subscriptions by State, End User Type, Bundle and Last-Mile Medium

		by End User Type		by B	by Bundle		by Last-Mile Medium		
State	Total	Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper

		by End User Type		by Bundle		by Last-Mile Medium			
State	Total	Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
North Carolina	15	15	0	15	0	15	0	0	0
Virginia	678	625	53	678	0	678	0	0	0
Total	693	640	53	693	0	693	0	0	0

Reminder: Use 2010 Census geographies for data as of June 30, 2021 and before. Use 2020 Census geographies for data as of December 31, 2021 and after.

For help or assistance, please contact (877) 480-3201 or (717) 338-2834 (TTY) or you may submit an online e-support ticket.

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Form 477 Filing Summary

FRN: 0027843333

Data as of: Jun 30, 2022 Operations: Non-ILEC **Submission Status:**Original - Submitted

Last Updated: Aug 2, 2022 02:55

Filer Identification

Section	Field	Response
Filer Information	Company Name	Mecklenburg Electric Cooperative
	Holding Company Name	Mecklenburg Electric Cooperative
	Filing Type	Non-ILEC
	SAC ID	199022
	499 ID	832934
Data Contact Information	Data Contact Name	Dwayne L Long
	Data Contact Phone Number	(434) 372-6125
	Data Contact E-mail	dlong@meckelec.org
Emergency Operations Contact Information	Emergency Operations Name	Dwayne L Long
	Emergency Operations Phone Number	(434) 372-6125
	Emergency Operations E-mail	dlong@meckelec.org
Certifying Official Contact Information	Certifying Official Name	Dwayne L Long
	Certifying Official Phone Number	(434) 372-6125
	Certifying Official E-mail	dlong@meckelec.org

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	CLEC_All_Jun_2022.csv	Aug 2, 2022 02:52 PM	1,155
Fixed Broadband Subscription	speeds2.csv	Aug 2, 2022 10:39 AM	68
Fixed Voice Subscription	fixedVoice.csv	Aug 2, 2022 09:57 AM	13

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State DBA Name	Technology	Blocks
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State	DBA Name	Technology	Blocks
North Carolina	EMPOWER BROADBAND, INC.	Optical Carrier/Fiber to the End User	10
Virginia EMPOWE	EMPOWER BROADBAND, INC.	Asymmetric xDSL	248
		Optical Carrier/Fiber to the End User	773
		VDSL	124
Total			1,155

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

				Subscriptions				
State	Technology	Census Tracts	Consumer	Business/Govt.	Total			
North Carolina	Asymmetric xDSL	2	3	0	3			
	Optical Carrier/Fiber to the End User	4	18	0	18			
Virginia	Asymmetric xDSL	30	869	11	880			
	Optical Carrier/Fiber to the End User	32	658	15	673			
Total		68	1,548	26	1,574			

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
3.000	3.000	68	4	72
5.000	5.000	133	2	135
10.000	10.000	663	5	668
25.000	25.000	8	0	8
50.000	50.000	511	10	521
100.000	100.000	138	5	143
300.000	300.000	17	0	17
1,000.000	1,000.000	10	0	10
Total		1,548	26	1,574

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Asymmetric xDSL	3.000	3.000	68	4	72
	5.000	5.000	133	2	135

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
	10.000	10.000	663	5	668
	25.000	25.000	8	0	8
Optical Carrier/Fiber to the End User	50.000	50.000	511	10	521
0001	100.000	100.000	138	5	143
	300.000	300.000	17	0	17
	1,000.000	1,000.000	10	0	10
Total			1,548	26	1,574

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
North Carolina	8	8	0	0
Virginia	646	616	0	0
Total	654	624	0	0

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
North Carolina	0	8
Virginia	0	646
Total	0	654

VGE Lines Provided to End Users by State, Bundle and Product Type

	by B		by Prod	uct Type			
				Consumer		Business/Govt.	
State	Total	Sold w/ Internet	Sold w/o Internet	& No PIC	& PIC	& No PIC	& PIC
North Carolina	8	8	0	8	0	0	0
Virginia	646	646	0	616	0	30	0
Total	654	654	0	624	0	30	0

VGE Lines Provided to End Users by State, Ownership and Last-Mile Medium

State	Total	by Ownership	by Last-Mile Medium

State	Total	Owned	by ObWMTe-Iship	Resale	FTTP	Coax by	Last- fivite: (IVV) ideles s	Copper
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
North Carolina	8	8	0	0	8	0	0	0
Virginia	646	646	0	0	646	0	0	0
Total	654	654	0	0	654	0	0	0

Reminder: Use 2010 Census geographies for data as of June 30, 2021 and before. Use 2020 Census geographies for data as of December 31, 2021 and after.

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Stage II Detailed Technical Submission

Date:
Applicant:
FRN:
State(s):
Performance Tier(s):

GENERAL GUIDANCE:

- The use of this template is optional and voluntary.
- This template does not supersede or modify any of the orders, public notices, rules, or policies that have been or will be adopted by the Commission for the Rural Digital Opportunity Fund and Auction 904. See the Commission's Auction 904 website for more information, including a tutorial regarding the Stage II detailed technical submission: https://www.fcc.gov/auction/904.
- The long-form is meant to be detailed in nature and approaches an LLD (Low Level Design).
- This is a document submitted from one engineer to another engineer.
- We encourage the use of technically valid TERMINOLOGY.
- We encourage the use of precision language for technical terms.
 - o Do not say priority or QoS; Use terms such as: DSCP, Diff Serv, TOS, etc.
 - o Do not say routing protocols; Use terms such as: OSPF, IS-IS, EIGRP, BGP, etc.
 - o Do not say traffic engineering; Use terms such as: MPLS, VPLS, VLANs, etc.
- This is a forward-looking future-oriented document for the 10-year span of this program.
- Our questions are asking for the minimum. You can add more.
- Each question must be answered completely. There will be portions of your answers that may be repetitious and may have been used as part of an answer to other questions. This is expected. Answer each question completely where it is asked.
- The spacing between questions below DOES NOT INDICATE THE DESIRED LENGTH OF YOUR ANSWER. Indeed, the blank lines merely represent a placeholder. LONGER ANSWERS ARE EXPECTED.
- If an answer encompasses multiple technologies please use separate paragraphs in your answers below to differentiate between how separate technologies or network designs are to be implemented. For example, one paragraph for fiber, a second for Cable and a third for fixed wireless when answering question 1a) for last-mile. Separate paragraphs could also be done if there are variations in the network due to differences such as state(s) in question 1c).
- Please add equipment and software vendor names for most answers that use equipment and software. Not every minor vendor name but the major or significant vendors.

¹Commission decisions adopting rules and policies for the Rural Digital Opportunity Fund and Auction 904, as well as detailed public notices outlining the procedures, terms, and conditions for the auction control and can be found on the Auction 904 website and through the FCC's Electronic Document Management System (EDOCs) database.

1. <u>Overall Network Design</u>. A long-form applicant, regardless of the technology (or technologies) it proposes to use, is expected to:

a) Describe the proposed last mile architecture(s), design, and technologies².

EMPOWER Broadband, Inc. ("EMPOWER") a subsidiary of Mecklenburg Electric Cooperative ("MEC"), proposes a Fiber-to-the-Home (FTTH) architecture for the last mile using predominately Gigabit Passive Optical Network (GPON), and as needed, XGS-PON or Active Ethernet architectures. The physical facility will consist of Optical Line Terminals (OLTs), fiber optic cables/drops, optical splitters and the Optical Network Terminations (ONTs). The network will be sufficient to connect all existing census block business, school and residential locations with fiber capable of a nominal symmetrical 1 Gb/s connection.

OLTs will typically be located in existing Substation communications huts (alternatively, where density warrants, in new remote cabinets). All Dielectric Self-Supporting (ADSS) feeder and distribution fiber optic cables will be located on company owned poles in the supply space while the fiber optic drops will be installed in the pole designated communications space. Passive splitters will generally be distributed along the ADSS cable as 1:8 in combination with 1:4 (yielding a final split ratio of 1:32). Where bandwidth needs or customer demands warrant, XGS-PON (10Gb/s). NG-PON (10 or 100Gb/s) or Active Ethernet will be deployed - all three of these technologies are spectrally and physically compatible with GPON.

Standards & Installers for materials and equipment

Fiber Optic Cable

Fiber Optic Cable Color Identification and Coding

ANSI/EIA-359-A

ANSI/EIA-500-A

Optical Fiber Cable Color Coding ANSI/TIA/EIA-598-C

Requirements for Optic Fiber & Optical Fiber Cable
Ethernet Ring Protection Switching (ERPS)

Rapid Spanning Tree Protocol (RSTP)

GR-20-CORE
ITU G.8032
IEEE 802.1w

Link Aggregation (LAG) IEEE 802.3ad/802.1AX

Virtual Router Redundancy Protocol (VRRP) RFC 5798 Version 3 for IPv4/IPv6

Transport Delay, Jitter Loss
Ciena 5160 ITU-T Y.1731
Transport Connectivity Fault Management
Ciena 5160 IEEE 802.1ag

Cable manufacturer AFL, OFS, Prysmian or Commscope

Remote Cabinets GR-487

Splitters Telcordia GR-1221/1209/326

GPON ITU G.984
XGS-PON ITU G.9807.1
NG-PON ITU-G.989
Active Ethernet IEEE 802.3z/ae

Transport Ciena 5160
CORE Routers Cisco 4500
SCADA aggregation Cisco IE4010
Splitter Manufacturer Clearfield
GPON OLTs/ONTs integrated 10Gb/s manufacturer
Remote Cabinets Calix ODC

All proposed materials and equipment (except XGS-PON/NG-PON) are not only well established within the broadband industry but also already installed and operational within the MEC/EMPOWER network. Additions required to fulfill the requirements of this RDOF commitment will be integrated into the existing

network. The following RDOF locations will be served as follows;

Access Location	Census Block	Aggregation (Substation or Other)	# Locations	Uplink
#1 VA-117-9303001	510259303001	Gasburg	411	2 x 10G
#2 VA-025-9303002	510259303002	Gasburg	316	2 x 10 G
#3 VA-025-9303003	510259303003	Gasburg	83	2 x 10G
#4 VA-025-9303004	510259303004	Gasburg	113	2 x 10G
#5 VA-025-9303005	510259303005	Gasburg	16	2 x 10G
#6 VA-081-8801011	510818801011	Belfield	934	2 x 10G
#7 VA-081-8801012	510818801012	Belfield	191	2 x 10G
#8 VA-081-8801013	510818801013	Belfield	68	2 x 10G
#9 VA-081-8802001	510818802001	Belfield	595	2 x 10G
#10 VA-083-9302023	510839302023	Crystal City	81	2 x 10G
#11 VA-083-9304002	510839304002	Omega	174	2 x 10G
#12 VA-117-9301011	511179301011	Beechwood	195	2 x 10G
#13 VA-117-9302011	511179302001	Beechwood	58	2 x 10G
#14 VA-117-9303001	511179303001	Beechwood	36	2 x 10G
#15 VA-117-9303002	511179303002	Beechwood	258	2 x 10G
#16 VA-117-9308001	511179308001	Omega	30	2 x 10G
#17 VA-143-0106001	511430106001	Mt. Airy	2	2 x 10G
#18 VA-595-8901001	515958901001	Belfield	16	2 x 10G
#19 VA-595-8901002	515958901002	Belfield	2	2 x 10G
#20 VA-595-8902004	515958902004	Belfield	22	2 x 10G

b) Describe the proposed middle mile/backhaul topology³, architecture, design, and technologies.

MEC/EMPOWER currently operates three (3) L3 Area 10 Gb/s Rings: Ring #1 has eight (8) Ciena 5160 Nodes with a two (2) Node collapsed 10Gb/s sub ring, Ring #2 has four (4) 5160 Nodes and Ring #3 has eight (8) 5160 Nodes with a one (1) Node 10 Gb/s sub ring. These L3 Area Rings are all linked together with a multi-10Gb/s fiber optic ring with four (4) of the 5160s serving as network Nodes. These nodes will not only provide for broad band but also the architecture is predicated on maximizing the reliability and availability for Mecklenburg Electric Cooperative's Supervisory Control and Data Acquisition (SCADA) network. Eight (8) of the nodes will be interconnected with at least two (2) paths. In addition to the aforementioned nodes, EMPOWER will utilize Calix E7 nodes at other Substations.

c) Describe the proposed interconnection architecture, design, and technologies solution to connect to the Internet. This will include the likely service providers, link data-rate/size, locations, dual-homing, and multi-homing characteristics.

EMPOWER presently has the following 'First Mile' data backhaul and Interconnecting links all derived via fiber:

Origination Location	Service or Rate (Gb/s)	Fiber Transport	Far End - Internet
		Provider – out of	Provider
		territory	
Chase City Business	10 Gb/s	Mid-Atlantic Broadband	Pixel Factory – Ashland,
Office Ciena 5160		Communications fiber	VA
		ring network	
Gasburg Substation Hut	10 Gb/s	Mid-Atlantic Broadband	Pixel Factory – Ashland,
Ciena 5160		Communications fiber	VA
		ring network	

Shortest Path First (OSPF) routing protocol improved efficiency between the existing links. All equipment at Pixel Factory is owned, maintained and operated by Pixel Factory.

d) Describe the proposed architecture that will be used to provide voice service.⁵ Describe whether the proposed voice services will: 1) be internally provided, 2) use a managed voice service provider, 3) use a voice over the top service, or 4) use another type of voice service.⁶

Voice Service Architecture (MOMENTUM TELECOM)

EMPOWER Broadband, Inc. will be offering voice services using Momentum Telecom's platform, which is comprised of several carrier-class data centers and self-healing fiber optic ring networks. It has multiple layers of redundancy — enabling maximum uptime and continuous operation. To dramatically reduce latency and offer network flexibility, Momentum offers Points of Presence on a worldwide fiber backbone.

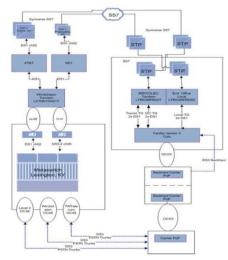


Momentum Telecom operates paired BroadSoft® switches in

five Tier-1 data centers located across the country. This pairing offers high availability by utilizing session border controller clustering. Local and geographic server redundancy provides zero downtime on upgrades and repairs.

Momentum Telecom uses multiple sites and redundancies throughout the network. The core network architecture for voice switching is a Broadsoft Feature Server to provide customer-side features and switching, a MetaSwitch for PSTN switching and an Oracle/Acme Packet Session Border Controller for

authentication and security. This infrastructure is duplicated in Lexington, Kentucky, Atlanta, Georgia, Phoenix, Arizona, Philadelphia, PA and St. Louis Missouri. Each site is both privately and publicly connected to each other site with fail over points on-site. Public-switched data is encrypted via SS7 128+bit PPTP. With five (5) geo-redundant points of fail over interconnecting with each site a total network failure would only occur should two of the three sites have all three devices fail and all 6 redundant pathways fail. Calculable odds of this are less than 0.0001% (six nines reliability).



MOMENTUM TELECOM has both the MetaSx and Broadsoft Feature server network elements. Signaling System 7 (SS7) and trunk interface protocols of ISDN PRI are inherent within the system. LIDB functionality is supported via the SS7 protocol application in the MetaSx and signaling partners. Physical trunk interfaces are managed via DS1, DS3 and SIP Ethernet interfaces. MOMENTUM TELECOM provides traditional telecom services like operator-assistance, OA, and collect calls as a plug-in to the feature services. Simplified Message Detail Indicator is available via the Broadsoft feature platform. Least Cost Routing is also implemented in the MOMENTUM TELECOM platform and provides alternative routing selections based upon least cost/highest quality routes. Momentum's proprietary front-end GUI (graphic user interface) provides a simple way to provision, service and support all customers regardless of their service delivery mechanism or network, thus making Momentum's voice service compatible across nearly all aspects of service delivery. By interconnecting our networks, we can provide a direct connection to our core infrastructure, thus eliminating third party failures.

Ongoing access to the Public Switched Telephone Network (PSTN) for signaling and voice services are available to all existing customers – via the managed voice service provider Momentum Telecom and is accessed at Ashland, Virginia. This system has already proven to be highly reliable for EMPOWER's existing customers. The Calix ONTs support Session Initiation Protocol (SIP) based voice service. An Integrated Access Device (IAD) function is embedded in the ONT and interfaces to the POTS interfaces on the ONT. The ONT performs the call handling and IP packetization required for VoIP implementation, Voice services are delivered in conjunction with the contracted voice service provider. The ONT SIP solutions supports standard voice service offerings including Caller-ID, Call Waiting, Call Transfer, Three-Way Calling, Distinctive Ring, Ring Splash and E911. Additionally, Calix will support H.248 or Media Gateway Control Protocol (MGCP). All new broadband customers will be provided an option for SIP voice services described above.

e) Describe the network's scalability to support customer growth and network data usage growth

to account for: 1) ever increasing application requirements, 2) increasing quality demands, and 3) lower response/latency demands for ever increasing usage of highly interactive applications.

The scalability will reside in the following physical forms working from the customer location all the way to the Internet Service Provider Location: (1) individual customer connection speeds will be adjusted to the customer desired rate to meet specific needs, (2) for middle mile, (serving OLT back to the Border Router) the dual links (10 Gb/s) will be upgraded or augmented once peak throughput reaches 80% and (3) as the dual backhaul links from the Border Router to Pixel Factory reach 80% of capacity, they will be augmented in 10 Gb/s increments. Scalability of voice connections to Momentum is not and will not be an issue – the 1 Gb/s Ethernet connection link will handle at least 15,625 simultaneous calls. The existing network is designed and constructed to support the following: <1% packet loss, <80ms jitter and <12ms latency.

f) Describe the design and features that it proposes to implement that will: improve reliability (such as redundancy) for equipment, links and software; dual homing; and multi-homing connectivity.

Power: Network -48VDC power sources will consist of N+1 rectifiers with battery backup and the commercial AC is available directly from an adjacent substation (except for Chase City which has a standby generator). All Ciena 5160 nodes, Cisco 4500 Routers and Calix OLTs will be fed from two (2) fused positions off the -48VDC sources. Physical links (other than customer ONTs) will always be designed, equipped and configured for redundancy – the major backbone elements will be on geographically diverse rings or a mesh configuration. Internet backhaul will be routed via two (2) geographically diverse links to a connection with MBC which operates rings covering all of southern Virginia and provides for backhaul redundant paths from South Hill to Ashland, Virginia. Momentum Telecom operates their softswitches, feature servers and Session Border Controllers pairs in geographically diverse locations and datacenter environments. Pixel Factory provides equipment in a hardened environment with redundant power and environmental conditioning. The Calix OLTs and ONTs are also temperature hardened. Customers desiring continuous Internet service during power outages can opt for battery backup provided by EMPOWER or other units of their choosing.

g) Describe network infrastructure ownership. Indicate which parts of the network will use the long-form applicant's or another party's existing network facilities, including both non-wireless and wireless facilities extending from the network to customers' locations. For non-wireless facilities that do not yet exist, the description should indicate whether the new facilities will be aerial, buried, or underground. This includes leased lines, transit services, rented tower space for radios, etc.

There will be no wireless. Mecklenburg Electric Cooperative (MEC), the parent company of EMPOWER, will own or provide via joint-use agreements, all pole space and ADSS cables for backhaul, backbone and distribution plus access cases. In addition, MEC will lease EMPOWER fiber drops. EMPOWER will own Calix OLT/ONTs. MEC will own all Ciena 5160 and Cisco 4010/4500 equipment. Backhaul to the Internet will be owned by MEC to the meet point with MBC in South Hill at which point all fiber facilities will be owned and operated by MBC the remainder of the distance to Ashland, VA Pixel Factory datacenter.

Backhaul and Data Consolidator/Internet Provider
MBC (backhaul network) and Pixel Factory (Data Consolidator/Internet Provider)



EMPOWER Broadband, Inc is utilizing the MBC's Open-Access network to connect to a redundant data provider (Pixel Factory) in Ashland, VA over multiple redundant 10 Gb/s connections. Multiple points of entry into the MBC network will be used to create redundant routes to the Internet and VoIP providers. MBC dark fiber IRU's are also being utilized as an important part of the redundant links being established. The

primary Internet Data provider (Pixel Factory) has multiple connections from Richmond North and South to places such as Ashburn and Atlanta. MBC owns and operates more than 1,800 miles of openaccess fiber optic network in 31 counties in Southern Virginia. MBC owns the fiber sheath, the colocation facilities, and the electronics. MBC uses Ciena 6500 for SONET/TDM; Ciena Z-Series platform and Accedian for Layer 2 Ethernet Transport Network; and Infinera DTN for a 400Gb/s wavelength network and has recently-installed the new DTN-X system, which provides 4 Terabits of transport capacity.

MBC has fiber IRU agreements in place for diverse connections from the Southern Virginia regional network to Northern Virginia and key markets in the Southeastern United States. Part of their ring terminates in Richmond at the Pixel Factory Data Center.

All equipment such as routers and fiber terminations at Ashland, VA will be owned by Pixel Factory.

h) Provide technical information about the design methods, "rules of thumb," and engineering assumptions used to size the capacity of the network's nodes (or gateways), links and wireless base stations. These are often expressed as ratios, such as "oversubscription ratio" applied in the middle-mile/backhaul and interconnection network levels that funnel the consumer traffic to the Internet. The information provided should demonstrate how the required performance for the relevant performance tier will be achieved during periods of peak usage, downstream and upstream speed, and latency assuming a 70% subscription rate by the final service milestone. For example, the diagram below shows the various oversubscription ratios, link media (wired, wireless, etc.), redundancy and multi-homing in a visual format. It can also be described in text with no need for a diagram.

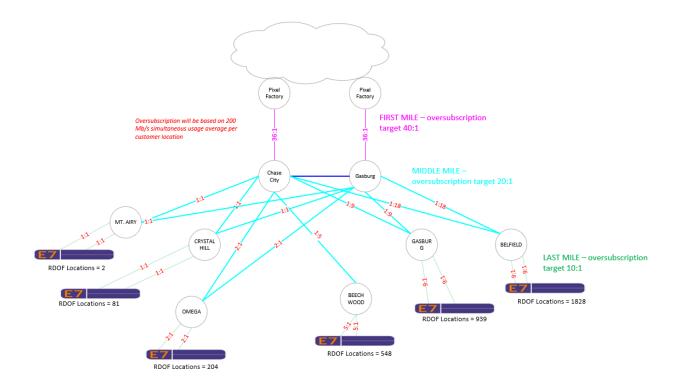
Regardless, we do expect sufficient technical detail rather than a simplistic approach. We expect several ratios as shown and not a simple statement that the network "will use a 20:1 ratio" since ratios are generally different at different levels and locations.

All OLT locations will be interconnected with two (2) 10 Gb/s links on fiber optic cables – these links will operate in redundancy; one (1) of the existing nodes that is proposed to support RDOF locations will be operated in a subtending collapsed ring configuration; the remaining 19 locations will be configured and integrated into 1 of the 3 existing Area Rings.

Oversubscription 'Rule of thumb' is 10:1 for the "Last Mile", 20:1 for "Middle Mile" and 40:1 for "First Mile" based on an average worst case simultaneous location bandwidth usage (200 Mb/s); the computed oversubscription ratios for 20 RDOF service areas breakdown as follows: 12 have no oversubscription, 6 locations will be between 2-5:1 and 2 will be 6-10:1. The 10 Gb/s links from the OLTs to the Router will be 12 locations with no oversubscription, 6 with 4-10:1 and two (2) with 12-20;1. Presently, none of the existing Middle Mile oversubscriptions approach 20:1 even when computed at 200 Mb/s average simultaneous data usage per location; as RDOF Locations are added, the transport facilities will be upgraded or augmented to maintain at least 20:1 by increasing the individual Calix OLTs from redundant 10 Gb/s in increments of 10 Gb/s as required. The First Mile existing 2 x 10 Gb/s computes to be 36:1 with 100% RDOF location (3602) take rate. At any time, upon peak throughput reaching 80% link capacity bandwidth augmentation will be engineered and installed. The following table is the calculated oversubscription by site:

Tracking #				RDOF	VA 911	Area		Aggregated	Last Mile
(Exhibit A)	Census Block #	Item	County	Locations	Locations	(Sq.Mi.)	Access OLT	Bandwidth	Oversubscription
1	510259303001	VA-025-9303001	Brunswick	411	402	20.53	Gasburg	8.04E+10	4
2	510259303002	VA-025-9303002	Brunswick	316	370	18.86	Gasburg	7.40E+10	4
3	510259303003	VA-025-9303003	Brunswick	83	77	4.46	Gasburg	1.54E+10	1
4	510259303004	VA-025-9303004	Brunswick	113	95	2.58	Gasburg	1.90E+10	1
5	510259303005	VA-025-9303005	Brunswick	16	19	0.99	Gasburg	3.80E+09	0
6	510818801011	VA-081-8801011	Greensville	934	971	53.03	Belfield	1.94E+11	10
7	510818801012	VA-081-8801012	Greensville	191	183	11.69	Belfield	3.66E+10	2
8	510818801013	VA-081-8801013	Greensville	68	67	2.74	Belfield	1.34E+10	1
9	510818802001	VA-081-8802001	Greensville	595	578	38.97	Belfield	1.16E+11	6
10	510839302023	VA-083-9302023	Halifax	81	85	3.12	Crystal Hill	1.70E+10	1
11	510839304002	VA-083-9304002	Halifax	174	152	5.88	Omega	3.04E+10	2
12	511179301011	VA-117-9301011	Mecklen burg	196	196	7.99	Beechwood	3.92E+10	2
13	511179302001	VA-117-9302001	Mecklenburg	58	59	2.11	Beechwood	1.18E+10	1
14	511179303001	VA-117-9303001	Mecklen burg	36	41	1.43	Beechwood	8.20E+09	0
15	511179303002	VA-117-9303002	Mecklen burg	258	263	16.05	Beechwood	5.26E+10	3
16	511179308001	VA-117-9308001	Mecklen burg	30	27	0.59	Jonesville	5.40E+09	0
17	511430106001	VA-143-0106001	Pittsylvania	2	0	0.05	Sheva	0.00E+00	0
18	515958901001	VA-595-8901001	Emporia	16	16	0.02	Belfield	3.20E+09	0
19	515958901002	VA-595-8901002	Emporia	2	6	0.03	Belfield	1.20E+09	0
20	515958902004	VA-595-8902004	Emporia	22	20	0.06	Belfield	4.00E+09	0
									38 = Overall
				3602	3627	191	Total		packhaul
							Backhaul =	7.256E+11 (oversubscription

The oversubscription is depicted below.



Calix OLT systems support flexible line of high-capacity line cards and modules offering carrier grad services and technologies. All line cards and modules integrate non-blocking, full duplex switches and the capability to aggregate standards-based Ethernet traffic from the full range of Calix broadband solutions, customer-provided Ethernet switches and customer-provided routers. The Calix OLTs will deliver high-density aggregation and transport flexibility to support 10 Gb/s business and residential services. Uplink and downlink aggregation can be provided through the use of Gigabit Ethernet interfaces ranging from 1 Gb/s, 10 Gb/s, 40 Gb/s to 100 Gb/s. This equipment will support the following protocols:

- ITU G.8032 Ethernet Ring Protection Switching (ERPS)
- IEEE 802.1w Rapid Spanning Tree Protocol
- IEEE 802.3ad/802.1AX Link Aggregation
- Interface with RFC 5798 Virtual Router Redundancy Protocol Version 3 for IPv4 and IPv6.

³ For example, describe its network topologies (the layout pattern of interconnections between node devices in a network). There are many different types of network topologies, including point-to-point, linear, daisy-chain, bus, tree, star, ring, dual-ring, mesh (partial & full), and hybrid. There are also technology-specific topologies such as FTTH, FTTN, HFC, PTP, PTMP, and ERPS.

⁴ This includes selected transient or Internet service provider names and IXP location names or at a minimum city and state location.

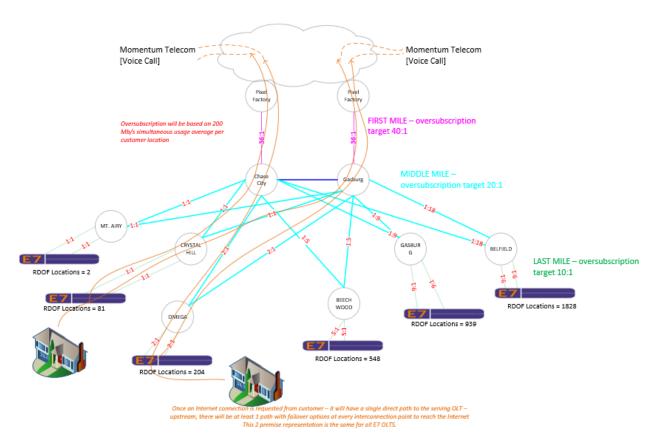
⁵ If the long-form applicant obtains these or other voice service functions as services from another provider or providers (for example, an over-the-top VoIP provider, or an incumbent or competitive local exchange carrier), the

description should so indicate. Voice solutions are a collection of integrated sub-systems dependent on selected architecture and design implementation. These architectures can include items such as: SIP, H.323, and MGCP; internal trunking, e.g., SIP trunks; quality of service protocols and use; connectivity to the PSTN and other VoIP providers; associated internal traffic-engineering to support voice quality; and more. If the applicant is using a hosted or Managed Service Provider (MSP) for its voice solution it must provide and sufficiently describe its infrastructure support. Such network infrastructure support solutions may include Quality of Service (QoS), voice paths setup by traffic-engineering protocols, trunking, and other methods, e.g., when using a voice MSP (Managed Service Provider).

⁶ See Rural Digital Opportunity Fund Phase I Auction Scheduled for October 29, 2020; Notice and Filing Requirements and Other Procedures for Auction 904, AU Docket No. 20-34 et al., Public Notice, 35 FCC Rcd 6077, 6127-29, paras. 135-39 (2020) (Auction 904 Procedures Public Notice). (describing how an ETC must offer qualifying voice service using its own facilities, at least in part).

i) Finally, describe how the long-form applicant's design will meet the peak period end-to-end performance requirements for the path from the consumer premises to the Internet. This requires that the applicant detail consumer path use case(s) that the long-form applicant will use to move traffic to and from the consumer premises to the Internet. This description should define the technical, planning and capacity parameters that a stream of packets would experience along this end-to-end path. For example, the diagram below shows five paths labelled A through E. This includes various oversubscription ratios, link media (wired, wireless, etc.), redundancy, and multi-homing characteristics. However, the diagram does not show the equipment types and other information that might be relevant to the long-form applicant's network.

The diagram below is representative of typical path of Internet access – all links are via fiber optic cables.



2.	that	ject Plan. The applicant will provide a project plan that describes a network build-out schedule includes but is not restricted to plans for constructing last mile and middle mile facilities. The build-out schedule should include when (month, quarter or projected date) and where (geographic description, county, city, town, CBG, census tract; note the state or higher level is not acceptable).
	b)	The build-out schedule should show the long-form applicant's projected milestones on an annual basis, including achievement of the interim service milestones described in section 54.802(c) of the Commission's rules and completion of the network for the number of locations determined by the CAM by the end of the sixth year of support.
	c)	The project plan and included schedule should incorporate detailed information showing how the long-form applicant plans to offer, to at least 95% of the required number of locations in each relevant state, voice and broadband service meeting the relevant performance requirements when the system is complete.

3. Network Management and On-going Operations. The applicant's detailed description should:

a) Describe the applicant's plans for monitoring network usage/capacity, performance, congestion, and other parameters. 10

Network Monitoring and Management

EMPOWER will be utilizing SolarWinds NetFlow Traffic Analyzer, bandwidth monitoring software and Calix Cloud creating a clear visibility to monitor the network, discover traffic patterns, and avoid bandwidth hogs. The combined monitoring solutions provide faster troubleshooting, increased efficiency, and greater visibility into malicious or malformed traffic flows. The cloud-based Calix Support Cloud solution provides EMPOWER with the means to quickly resolve subscriber connectivity concerns. By identifying Wi-Fi network and device performance status, support staff can proactively address any issues before subscribers become aware of them. This results in reduced annual call volumes by as much as 10%, shortened call times by as much as 25%, and lower truck rolls by 50%, all contributing to increased customer satisfaction and retention.

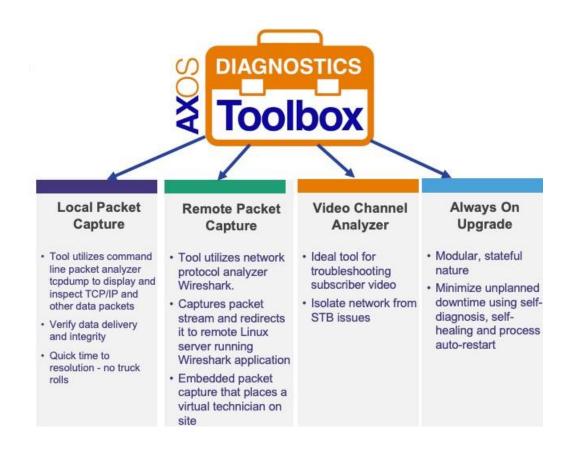
The Calix Wi-Fi Access Point (AP) or Residential Gateway (RG) is a critical part of the home network. With Calix Support Cloud, the AP may be managed using the TR-069 protocol, leveraging TR-098 and TR-181 data models to monitor key Wi-Fi performance indicators which includes PHY (Physical) Rate, adjacent channel and non-Wi-Fi interference, coverage, and quality of experience. Calix Support Cloud provides front-line help desk with a powerful automated issue resolution service to improve customer satisfaction and significantly reduce support costs. Support Cloud will empower us as a service provider to: Discover ways to eliminate or shorten support calls, Simplify issue resolution and eliminate unnecessary truck rolls Reduce the number of RMAs during troubleshooting, Elevate Support teams so they can upsell new services. Additionally, Calix Integrated Diagnostics Toolbox enables the service provider to verify data delivery and service integrity quickly and easily at the access edge.

Calix also offers the Services Management Connector (SMx), designed to provide complete Fault Configuration, Accounting, Performance and Security (FCAPS) for Calix Intelligent Access Edge systems. SMx provides the security, availability and performance requirements of all operator tiers in telecommunication and multiservice operator networks. SMx Fault Management includes alarming on physical and logical managed entities, supporting:

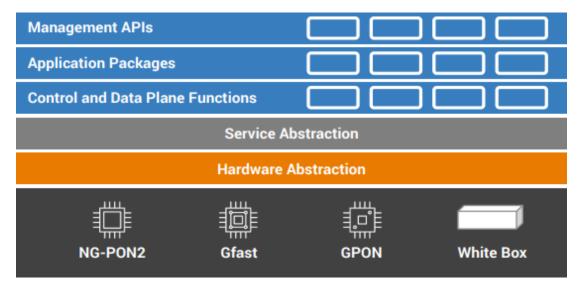
- Alarm aggregation, browsing, reporting
- Alarm history, browsing, reporting

SMx Performance Management also includes alarming on physical and logical managed entities, supporting:

- Real time statistics on NNI and UNI ports
- Node, port service performance
- Performance Measurement based on IPFIX



The AXOS architecture inherent in the Intelligent Access Systems uses a hardware abstraction layer (HAL) that isolates the reusable software modules from above the hardware-specific chipset drivers below. As a result, the HAL makes it possible for services providers to adopt new physical layer technologies in the access network quickly and cost effectively and without any disruption to existing subscriber services.



b) Describe how the applicant will maintain the performance and quality of the service for the duration of the 10-year support term. 11

EMPOWER, has committed to acquiring the best suitable equipment and facilities along with hiring the best installation contractors and partnering with Momentum Telecom, Pixel Factory and MBC and thusly, has demonstrated the ability to select solutions and partners to create not only a working system but also a system which delivers services at economical price points. The backbone of the network was originally created by MEC to evolve electrical power delivery management and monitoring to a higher standard – the same team that made this commitment, drives EMPOWER as the broadband system grows and standards are raised. Thus, having demonstrated how to make value judgments and adapt network needs in an evolving energy delivery world, the EMPOWER team is confident in moving forward with not only major customer growth but also with increased services and standards. Further, using the MEC historical business model as a guide for fundamental commitment, EMPOWER is equally committed to hiring, training and retaining a work force which is up to the task of delivering high quality broadband services.

c) Describe who will provide these services. Will the applicant: 1) use existing internal organizations, 2) use contracted management service providers, 3) create new internal organizations, or 4) engage new contractors?

EMPOWER currently has no plans to change cable plant construction contractors, equipment vendors, specialized support service providers and technical support services so long as those services continue to maintain high quality, a commitment aligned with EMPOWER business needs and are competitively priced. However, EMPOWER, as a subsidiary of MEC, will not sacrifice or dilute the 80-year commitment history serving the southern Virginia area for any contractor or vendor. New cable construction contractors become available on a regular basis – they are investigated and evaluated to determine worthiness of being added to the Bidders List. As EMPOWER continues to grow and expand, we will continue to evaluate the composition of our core business, certain aspects will be brought inhouse and others might be outsourced depending on the Organizational needs. Presently, Calix, Ciena and Cisco provide for our electronics needs – their pricing and support is competitive. Pixel Factory is a relatively new company, big enough to handle and support our present Internet access needs and MBC is of a similar southern Virginia spirit and commitment whose network makes it easy to get to the outside world economically. Both Pixel Factory and MBC maintain 7x24x365 NOC centers and have provided excellent service and have been responsive to our needs.

d) Describe how the applicant will comply with Commission performance measures for speed and latency. 12 The description should include whether the applicant plans to use the Measuring Broadband America (MBA) system, off-the-shelf testing mechanisms such as existing network management systems and network management tools, or provider-developed self-testing mechanisms.

Calix has developed a dynamic broadband performance testing solution to ensure service providers can easily leverage Calix Support Cloud (CSC) as a test controller and the EXOS-enabled GigaSpire systesm as the test client in an FCC-approved testing framework. This configuration gives CSC and EXOS-enabled GigaSpire Customers a turnkey-solutions that requires no standalone hardware or additional agents. CSC has the following enhancements:

- Enhanced Test Reporting: provides the ability to quickly identify FCC-compliant Ookla servers, including support for primary and secondary server selection (provided the CSP meets FCC test path requirements, CPE to Server), and record results for every test attempt in a new, visually appealing, easy to read report format.
- Increasing Testing Flexibility: Calix EXOS updates include testing and reporting capabilities that meet the latest FCC requirements, meaning tests can be run on any GigaSpire BLAST or GigaCenter system as well as on all TR-181 or TR-089 certified

third-party systems.

Further, EMPOWER will engage both Pixel Factory and MBC on a regular and ongoing basis to provide circuit traffic data, outage and latency numbers and will seek to continually to upgrade the acceptable baseline minimums necessary to remain competitive with similar providers.

The Ciena 5160 nodes have the capability to provide delay, jitter and loss data per ITU-T Y.1731 and also provide Connectivity Fault Management per IEEE 802.1ag.

¹¹ Widely used network level performance management techniques include traffic-engineering, Quality of Service, over-building/scalability, redundancy, load-balancing, equipment that easily allows upgrades and a variety of other techniques. Relevant information can include oversubscription ratios at all network levels, assumptions, specific calculations, and most importantly PEAK period impact. Lastly, the answer must provide and sufficiently describe the rules of thumb and effective corrective actions as requested for all three levels of the network (last-mile, middle-mile, and core/Internet-connections.

¹² See generally Connect America Fund, Order, 33 FCC Rcd 6509 (WCB/WTB/OET 2018) (CAF Performance Measures Order). Further modifications were made to the performance measures requirements in subsequent reconsideration orders. See Connect America Fund, Order on Reconsideration, 34 FCC Rcd 8081 (WCB/WTB/OET 2019) (CAF Performance Measures First Reconsideration Order); Connect America Fund, Order on Reconsideration, 34 FCC Rcd 10109 (2019) (CAF Performance Measures Second Reconsideration Order) (describing the methodologies for the Commission's performance measures).

- 4. Network Diagram. The network diagram must be certified by a professional engineer and should:
 - a) Identify all wireline and wireless segments of the proposed networks. This should include applicable middle-mile/backhaul and interconnection network infrastructure. These are also commonly referred to as "links" between the nodes. These descriptions should indicate the media/link technology, data-rate/speed, and topology if point-to-point, ring, etc.
 - b) Uniquely identify (i) major network nodes¹³ including their manufacturer and model, as well as their functions, locations, ¹⁴ and throughput/capacity; ¹⁵ (ii) access nodes or gateways, ¹⁶ including their technology, manufacturer and model, location, and throughput/capacity; and (iii) major inter-nodal links (not last mile), ¹⁷ and their throughput/capacity.
 - c) Indicate how many locations/consumers will be offered service from each access node or from each gateway, and which performance tier or tiers will be supported at each access node.
 - d) Indicate what parts of the network will be new deployment and what parts will use existing network facilities.
 - e) Identify specialized nodes used in providing voice service, such as SIP servers, PSTN gateways or voice OTT providers.
 - f) Explain how nodes or gateways are connected to the Internet backbone and Public Switched Telephone Network. Show redundancy, dual- or multi-homing configurations.

¹³ Major nodes include, but are not necessarily restricted to, routers, SIP Proxies, soft switches, and databases, e.g., DNS services, used to route Internet communications and voice calls; and Points of Interconnection with the Public Switched Telephone Network and the Internet core.

¹⁴ A long-form applicant should provide a reasonably descriptive label for where the node is located. For example, identify the city or town, village or suburb where the node is located. Street address and latitude/longitude are not required but can also be used.

¹⁵ Capacity should be measured in Gigabits per second for routers, calls per hour for SIP proxies and soft switches, queries per minute for databases, and appropriate units for other nodes.

¹⁶ An access node connects a customer's connection to the core of the network. Access nodes include wireless base stations, digital subscriber line access modules, cable modem termination systems, and optical line terminations, among others. Access nodes are sometimes referred to as aggregation nodes. When we reference gateways, we are referring to the gateway earth stations used by satellite providers.

¹⁷ Include links that connect access nodes to the network core, among other major inter-nodal links. Each internodal link should be identified by specifying the nodes at the ends of the link.

- 5. <u>Terrestrial Fixed Wireless</u>. A long-form applicant that proposes to use terrestrial fixed wireless technologies should: NOT APPLICABLE
 - a) Explain, with technical detail, how the proposed spectrum can meet or exceed the relevant performance requirements at peak usage periods. ¹⁸ Clearly identify the licensed and unlicensed spectrum that will be used.
 - b) Provide the calculations used, ¹⁹ for each performance tier and frequency band, to design the last mile link budgets in both the upload and download directions at the cell edge, ²⁰ using the technical specifications of the expected base station and customer premise equipment. Submit assumptions regarding fading statistics, cell edge probability of coverage, and cell loading for each relevant performance tier.
 - c) Provide coverage maps for the planned and/or existing networks that will be used to meet the Rural Digital Opportunity Fund public interest obligations, indicating where the upload and download speeds will meet or exceed the relevant performance tier speed(s). The coverage maps should be provided for each interim and final service milestone and should display the required service areas and target locations (or a representation thereof). 22

¹⁸ The justification should clearly define all relevant assumptions including, but not limited to, oversubscription ratio, number of locations, spectrum efficiency, bandwidth, peak periods required user data rate, and peak periods network loading.

¹⁹ This should include a description of all design assumptions, including, but not limited to, coverage reliability, fade margins, required frame error rate, required signal-to-noise ratio, and modulation/coding scheme associated with frame error rate and signal to noise ratio.

²⁰ The term cell edge is commonly used to describe the edge of the base station coverage area beyond which performance goals cannot be achieved. A support recipient cannot report a location as served in satisfaction of its Auction 904 deployment obligations until it is capable of providing a voice and broadband service meeting the relevant performance tier and latency public interest obligations to that location within 10 business days upon request. *Auction 904 Procedures Public Notice*, 35 FCC Rcd at 6084-85, para. 17.

²¹Typically, a coverage plot must demonstrate that service to a proposed location will meet or exceed the prerequisite broadband speed and voice service requirements. Unlike legacy technologies, current and future generation technologies typically use speed for such coverage plots.

²²Coverage map guidelines are provided in the wireless coverage maps data specification posted on the Auction 904 website under the "Education tab."

- d) Provide detailed radio access network (RAN) infrastructure information used to generate the coverage maps for each unique cell including longitude, latitude, antenna height, antenna orientation, antenna down-tilt, antenna model, antenna system configuration, ²³ effective radiated power, operating spectrum amount, operating spectrum type, and operating radio technology.
- e) Describe the underlying propagation model used to prepare the coverage maps and how the model incorporates the operating spectrum, antenna heights, distances, fading statistics, terrain resolution, and clutter resolution.²⁴
- f) Describe the underlying cell site and generally, radio frequency (RF) access network capacity management and traffic engineering models or concepts. 25 Also describe any adjunct carrier aggregation or spectrum sharing techniques and if the proposed system could accommodate these features, if needed.
- g) Describe, for each relevant performance tier and latency combination, the base station equipment that the long-form applicant plans to use.²⁶
- h) Describe the planned customer premise equipment configuration.²⁷

²³ For example, transmit diversity, multiple-in-multiple-out (MIMO) and beam switching.

²⁴ A long-form applicant should provide vendor references and publicly available publications for the utilized model, digital elevation, and clutter data.

²⁵ In order to fulfill this requirement, the long-form applicant could describe the concept and specific best practices the applicant currently follows or intends to implement.

²⁶ Such a description should include technology, speed, number of sectors, average number of subscribing locations per sector, frequency band, channel bandwidth, frequency reuse, antenna gain, diversity configuration, estimated losses, estimated height above ground, base station coordinate in NAD 83, and any other relevant information. A long-form applicant should also include vendor specification data sheets or other supporting documents.

²⁷ Such a description should include technology, applicable frequency band, speed options, antenna gain, diversity scheme and modem specifications. A long-form applicant should also include vendor specification data sheets or other supporting documents.

6. Satellite Technologies. A long-form applicant that proposes to use primarily satellite technologies should:²⁸ NOT APPLICABLE a) Describe how many satellites that are in view simultaneously from any specific location will be required to meet the relevant Rural Digital Opportunity Fund public interest obligations. b) Describe how many uplink and downlink gateway antenna beams will be required on each satellite, and the capacity of each beam in megabits per second. For each winning bid area/state to be served, provide both the uplink and downlink beams, provide the gateway call sign, beam ID, frequency bands used, and location (city/state). c) Describe how many uplink and downlink user antenna beams will be required on each satellite, and the capacity of each beam in megabits per second. d) Describe how the gateway capacity is connected to user beams on the satellite, in terms of beams and data capacity per beam. e) Describe how much satellite capacity (in gigabits per second) the applicant plans to reserve, by winning bid area/state, to serve the locations required under applicant's award and to achieve the required service milestones. f) Describe whether the capacity on the uplink and downlink beams would be able to be reallocated once a satellite commences operation, if the subscription rate is less than 70% in one beam but more than 70% in another beam. If there are circumstances in which such reallocation would not be possible, please describe those circumstances and the states impacted.

²⁸ This does not include long-form applicants that intend to use satellite technologies primarily for backhaul.

Attachment 19: Additional Narrative

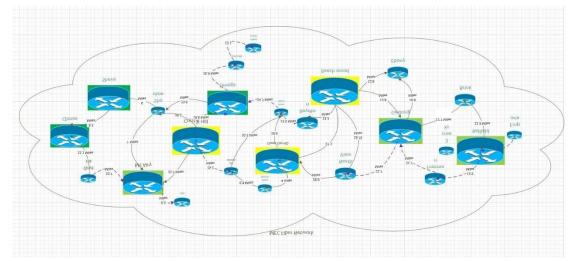
Narrative Information Tab

Question 8: Network Design

Last Mile service delivery will use Calix Customer Premise Equipment (CPE). The fiber drop will terminate at the Network Interface Device (NID) outside the premises. From there, single-mode fiber with Angled Physical Connectors (APC) will be used to connect to a Calix 844G, Calix U4, or Calix U6 Optical Network Terminal (ONT) device inside the premises. The 844G, U4, and U6 provide wired and Wi-Fi connections inside the location for internet service. These units provide Wi-Fi service using both 2.4 Ghz and 5.0 Ghz bands. The U4 and U6 devices provide WIFI 6 capabilities. Optional wireless mesh devices, the 804 or GigaSpire Mesh Extender, can be used in large homes or businesses to extend the range of the wireless service. Each ONT/Router also contains a voice port, which provides digital telephone services through the optional Voice over IP (VoIP) service.

The ONT is powered from either a standard AC wall outlet, or also can be connected to an optional lithium-ion battery back-up unit. The last mile network uses an overall tree and branch design for the access network. Each end customer has a fiber connection in the premises terminating at the ONT/Router. Layer_2 switching connects the end user back to a Calix E7-2 access device which transmits light on the fiber with a GPON small form-factor plug (SFP). E7 C+ SFP's have a 32-way split capable of reaching 32km, which puts all accounts within range of the serving area and is also the location of the E7-2's and an edge router. Layer 2 segments are trunked up to the edge router and then one of the centralized aggregation routers. Aggregation routers are centrally located at two different locations.

Aggregation routers are connected to a redundant Internet Data Provider using multiple 10Gb connections across a Mid-Atlantic Broadband (MBC) open-access network. The diagram below provides the physical infrastructure and connectivity design, showing the location of all major network nodes, creating a highly redundant network. Each of the nine (9) larger highlighted substations contain a major network node with a Layer 3 router that is locally ringed together with 10Gb fiber uplinks.



EMPOWER Broadband currently provides the following tasks to construct fiber:

- Engineering Design
- Fiber Network Design and Make Ready Work Design
- Make Ready Construction
- Construction of Outside Plant
- Drops, NID, ONT Customer Premise Installation
- Marketing/Billing

EMPOWER Broadband's network design makes **1Gbps down/1Gbps up** speed available to each home or business. By changing and adding electronics, sizeable gains in speed are obtainable for an incremental investment to accommodate the need of future families and businesses. This grant will serve as a continued investment for current and future internet needs. It should be further noted that fiber technology has no rivals and supersedes speeds delivered by any other technology, creating tremendous future proof value for our communities.

In response to the exponential growth of consumer demand for bandwidth, MEC / EMPOWER's existing electronics provider, Calix, delivers off the shelf next generation passive optical network (PON) technologies that provide 10Gbps symmetrical broadband over existing fiber cable. Additionally, Calix also produces NG-PON2 which can deliver 40 Gbps — with 80 Gbps possible in the future — all on a single fiber.

Question 16: Project Management

Name	Title	Project Role	Project Responsibilities
Deborah Gosney	Executive Director, Southside Planning District Commission	Project Liaison	Project Oversight and serves as a liaison with Halifax County
Scott Simpson	County Administrator, Halifax County	Project Liaison	Project Oversight and serves as a liaison with the Participating Counties
Daniel Whitt	County Administrator, Charlotte County	Project Liaison	Project Oversight and serves as a liaison with the Participating Counties
Wayne Carter	County Administrator, Mecklenburg County	Project Liaison	Project Oversight and serves as a liaison with the Participating Counties
Leslie Weddington	County Administrator, Brunswick County	Project Liaison	Project Oversight and serves as a liaison with the Participating Counties
Dr. Charlette Woolridge	County Administrator, Greensville County	Project Liaison	Project Oversight and serves as a liaison with the Participating Counties
John C. Lee, Jr.	President and CEO Mecklenburg Electric Cooperative (MEC) and EMPOWER Broadband	Corporate management	Manager of Overall Project
Dwayne Long	Vice President of Information Technology, MEC and COO EMPOWER Broadband	Project Manager	Monitor overall progress of project
David Lipscomb	Vice President of Member and Energy Services, MEC	Project Marketing	Advance Project Marketing Program
Carol Ann Jones	Vice President of Finance and Accounting, MEC	Grant Accounting	Tracks grant expenses and prepares reports
Sherry Harris	Administrative Assistant, EMPOWER Broadband, INC.	Administrative	Performs administrative tasks as necessary
Brian Woods	Director of Engineering, MEC	Engineering Coordinator	Coordinates engineering plans of fiber infrastructure for project

Robert	Director of Operations, MEC	Construction	Coordinates construction of
Lankford		Coordinator	fiber infrastructure for
			project
B. J. Seamans	Vice President of Engineering	Engineering &	Oversees all engineering and
	and Operations, MEC	Construction	construction duties for
		Manager	project

Question 19: Commonwealth Priorities

b continued: Critically important to a project of this magnitude is the confidence and support of the localities served by EMPOWER, all of whom have expressed their trust in EMPOWER's demonstrated ability to build and maintain a world-class fiber network. We value our long-term partnerships with Brunswick, Halifax, Mecklenburg, Charlotte, and Greensville counties which serve as the foundation for this application and facilitate their full support and assistance. Each county has also executed a MOU with Dominion Power, who is another partner in this project.

c continued: In addition to providing community hotspots throughout the five-county area, EMPOWER is also an active participant in the USAC Lifeline program. Lifeline is a federal program that lowers the monthly cost of phone and internet for consumers, intended to make communications services more affordable for low-income consumers. Lifeline provides subscribers with a discount on monthly telephone or internet service purchased from participating providers in the marketplace. EMPOWER also participates in the FCC's Affordable Connectivity Program that offers qualifying households up to \$30 a month towards internet service. Information on both programs is made available on EMPOWER's website.

e continued: Remote educational demand has also come to the forefront in recent years, as a result of the impact of COVID-19. Numerous families across our service territory contact us on a regular basis stressing the need for high-speed, reliable internet for their families to attend classes and complete their school activities. Being that many of our residents live in sparsely populated communities, community anchor institutions, such as local libraries, are often far enough away that they become a burden to travel back and forth to in an economical fashion.



2023 MARKETING PLAN

EMPOWER BROADBAND, INC. 11633 Hwy 92 West, Chase City, VA 23924

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I. Executive Summary

EMPOWER Broadband, Inc. (EMPOWER) is a wholly-owned subsidiary of Mecklenburg Electric Cooperative (MEC) created to bridge the digital divide in rural Southside Virginia by bringing ultra-high-speed fiber-to-the-premise (FTTP) to those unserved and underserved regions across MEC's service territory and its surrounding communities.

II. Marketing Plan Summary

1. The Business

Name: EMPOWER Broadband, Inc.

Structure: Wholly-owned subsidiary of Mecklenburg Electric Cooperative

Location: 11633 Hwy 92 West, Chase City, VA 23924

Incorporated: 2019

Owner: Mecklenburg Electric Cooperative

Experience: MEC was established in 1938, by the members, for the members, at a time when rural Southside Virginia did not have access to electricity. For over 80 years, MEC has provided power to the rural citizens across portions of nine southern Virginia counties and five northern North Carolina counties. MEC understands the needs of rural citizens and how to operate a successful business with limited funds and lower density per mile. MEC has the infrastructure in place to add fiber facilities and a workforce that can capably design and implement fiber deployment. The MEC team has significant experience in line and fiber construction — having already strung portions of fiber to the offices, substations and across portions of six counties already. Additionally, MEC's IT team has experience in network and fiber-to-the-premise broadband.

Products/Services: EMPOWER provides middle-mile capacity, retail high-speed internet service, as well as voice over IP telephony, high-speed data services, and advanced cloud-based solutions, to over 4,000 accounts in the cooperative's service territory in Southside Virginia and northern North Carolina

2. The Future

Vision Statement:

To further enhance the quality of life for the members and communities served by Mecklenburg Electric Cooperative by providing fiber-to-the-premise.

MEC continues planning fiber deployment to its remaining substations, as well as unserved and underserved routes extending from that backbone, while EMPOWER

seeks to secure funding for additional FTTP customers along and adjacent to those routes.

EMPOWER's long-term goal is to extend fiber throughout MEC's service territory and in surrounding communities.

3. The Market

EMPOWER's target market began with the members of MEC but has now expanded into areas served by Dominion Energy by utilizing their middle-mile fiber assets.

Currently, EMPOWER has the potential to serve nearly 10,000 customers throughout portions of Greensville, Brunswick, Mecklenburg, Charlotte, Halifax and Pittsylvania Counties. Current projects will increase that total to over 30,000 customers by 2025.

EMPOWER Broadband will utilize cost-saving measures by soliciting only prospective customers throughout the build. Items such as direct-mailers, brochures, yard signs, rack cards and door hangers will be used to contact members as fiber is being installed along those lines. Additionally, this targeted approach directly and specifically engages only those homes within the construction zone.

4. The Finances

Mecklenburg Electric Cooperative spent \$2.6 million dollars to build the fiber optic backbone across its utility infrastructure to connect its substations and district offices – creating a fiber ring. The cost to supply high-speed fiber optic cables to the entire MEC service area is estimated at \$85 million.

Additional funds have, and will continue to be, pursued with grant funding from organizations, such as the Virginia Tobacco Region Revitalization Commission (VTRRC), The Virginia Telecommunication Initiative (VATI), Rural Digital Opportunity Fund (RDOF) and the Federal Communications Commission's (FCC) Connect America Funds (CAF), which will be used to fund FTTP installations of EMPOWER Broadband accounts.

III. Business Overview

EMPOWER Broadband, Inc. provides middle-mile capacity, retail high-speed internet service, as well as voice over IP telephony, high-speed data services, and advanced cloud-based solutions, to over 4,000 accounts in the cooperative's service territory in Southside Virginia and northern North Carolina.

In April 2019, EMPOWER Broadband, Inc. joined forces with Buggs Island Telephone Cooperative, located in Bracey, Virginia, acquiring both its current telephone and broadband customers, who are mutual Mecklenburg Electric Cooperative members.

All broadband and telephone customers are now served by EMPOWER Broadband, Inc.

IV. The Future

1. Vision Statement:

To enhance Mecklenburg Electric Cooperative's grid with a communications network – with a redundant fiber optic backbone at its core – to enable metering, smart grid, distributed generation, and direct connectivity for smart home appliances.

To further enhance the quality of life for the members and communities served by Mecklenburg Electric Cooperative by providing fiber-to-the-premise.

2. Mission Statement:

To bridge the digital divide for MEC members and the surrounding communities by providing high-speed broadband to create jobs, attract new businesses, improve education and healthcare, and boost the local economy.

- Create Jobs/Attract Business By providing the local community with the necessary internet speeds to attract businesses to the area, job opportunities will increase.
- ➤ Education By providing students, teachers and administration with the necessary internet speeds, both teaching and learning will be transformed.
- ➤ Healthcare By helping bring physicians state-of-the-art equipment to the rural healthcare facilities of Southside Virginia with FTTP that will deliver world class opportunities for remote patient care in the home, and with bandwidth that will support video diagnosis and communication or data downloads from advanced medical equipment.
- Economic Development By having high-speed internet, rural Southside Virginia will become a hub for industry and growth.

3. Goals:

Short Term

Following the completion of the fiber backbone, which reaches 172 miles across MEC's service territory – connecting its substations, the three district offices (Emporia, Chase City and Gretna) and the headquarters' office, MEC and EMPOWER

will seek to secure additional funding sources to expand services from that initial backbone to serve our rural communities.

Contract deployment crews have been added to complete construction within the established schedule and strategic plan.

Long Term

EMPOWER Broadband, Inc. will extend fiber throughout MEC's service territory and/or local communities based on a take-rate approach.

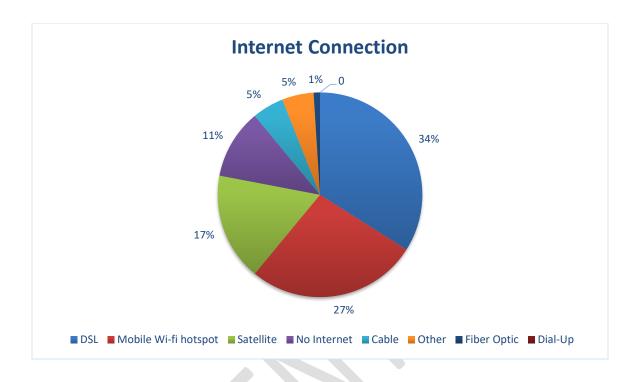
V. The Market

1. Unique Selling Position

Established in 1938, Mecklenburg Electric Cooperative is a not-for-profit, memberowned electric cooperative formed by the community for the sole purpose of providing electricity to the rural citizens of Southside Virginia. Over time, MEC has built a reputation of trust, commitment and service excellence among its membership. Today, the members of MEC are unable to acquire affordable, dependable, and sufficient high-speed internet services. MEC is uniquely situated in the unserved and underserved areas of Southside Virginia where high-speed internet is overpriced, unreliable and, in most cases, simply unavailable. Already having the infrastructure in place to easily add fiber assets, a skilled and capable workforce, an established potential customer base, and an established reputation for excellent service and commitment, EMPOWER is perfectly situated to provide retail internet services throughout the service territory of MEC.

2. Market Research

Currently, over 60 cooperatives across the nation have, or are in the process, of providing their rural members with high-speed fiber-optic internet. According to MEC's most recent Residential Energy Survey conducted by Olson, 83% of MEC members use their PC/Laptop to connect to the internet with the following internet connections:



Internet service from satellite and dial-up services are too slow, latency laden, and unreliable for modern applications while DSL is well oversubscribed. With only one percent of our rural members having access to fiber-optic internet service, it was imperative that MEC share with its membership high-speed internet using the fiber-optic cables installed along its system.

3. Target Market

Following the initial backbone phase, MEC has the potential to serve a minimum of 31,859 accounts across the following six counties, which MEC currently serves:

- * Pittsylvania 6,592
- * Halifax 6,021
- * Charlotte 1,135
- * Mecklenburg 10,070
- * Brunswick 3,705
- * Greensville 2,603

It should be further noted that, in partnership with Dominion Energy, EMPOWER has begun providing FTTP services to those outside of its service territory as well.

^{*}Totals as of January 2022

MEC/EMPOWER has deployed over 600 miles of fiber across portions of Brunswick, Charlotte, Halifax, Mecklenburg, Greensville, and Pittsylvania Counties in Virginia and in Warren County, North Carolina.

Over the course of three years, this total will increase to over 3,000 miles and pass over 30,000 homes by 2025 throughout these same counties.

4. Marketing Strategy

Marketing Activity	Person Responsible	Date of expected completion
Introduction Letter (services coming) Direct Mail to eligible members	Member & Energy Services Team	Mail once make-ready construction begins at location
Letter to include services and contract Direct Mail to eligible members	Member & Energy Services Team	Mail when make- ready work is complete
Postcards	Member & Energy Services Team	Mailed 3 weeks after contract letter
Door Hangers/Door to Door	Member & Energy Services Team	Used during installation phase
Yard Signs	Member & Energy Services Team	Displayed at property where services are connected & along fiber construction routes
Rack Cards	Member & Energy Services Team	Complete
Brochures	Member & Energy Services Team	Complete
Website	Member & Energy Services Team	Complete
Giveaway Items	Member & Energy Services Team	Complete
Branding Materials (shirts, tent, table cover, display stand)	Member & Energy Services Team	Complete
Promotional/Informational Events	Member & Energy Services Team	As Needed

VI. The Finances

1. Price

Residential pricing structures are as follows:



Commercial pricing structures are as follows:



2. Expected Sales

Per EMPOWER's VTRRC grant funding guidelines, MEC had to provide FTTP services to a minimum of 1,300 customers by March 2021, which is a 45.3% take rate. Those quidelines have been met and we continue to use those same projections for each additional projects. When combining current availability with future projects

expected throughout 2025, at an expected take rate of 45.3%, an anticipated 12,674 FTTP customer connections are projected in total over the next three years.

EMPOWER's market research, in addition to current EMPOWER FTTP averages, indicates the average take rate of 45.3% is both obtainable and reasonable.

3. Monitoring/Measurement Activities

EMPOWER Broadband will monitor early customer sign-ups per phase of fiber cable installed. If forecasts are not met with above marketing material, EMPOWER will take more aggressive measures to reach potential customers, i.e. door-to-door visits, phone calls, etc.

4. Crisis Management

During the event of unexpected and disruptive events, such as the ones experienced with COVID-19, both Mecklenburg Electric Cooperative and EMPOWER Broadband, Inc., will take the necessary precautions to ensure the safety of its employees, customers and the public -- first and foremost. With that said, we understand that dependable, high-speed internet access is needed more than ever for our community to thrive. Our crews, as well as contract crews, have continued to work around the clock and will continue to do so as long as government restrictions permit. Keeping in mind that utilities are "essential businesses," we must continue to perform daily work to ensure our members and customers have access to electricity and communications mediums during any crisis.

The following precautions will be put back into place for Mecklenburg Electric Cooperative and EMPOWER Broadband, Inc. should another pandemic arise:

- <u>NO ONE</u> except for MEC/EMPOWER employees and directors will be allowed in any of the cooperative's facilities, including family members.
- If anyone in an employee's home is sick or running a temperature, the direct supervisor must be notified, and the employee stays home until the person who is sick has been at least 24 hours without a fever.
- All employees must maintain the 6-foot social distancing standard and not congregate in close quarters.
- There is no gathering of more than 10 employees and only then if absolutely necessary. We recognize that outside employees work in the general vicinity of each other; and even then, employees must distance whenever possible.
- Avoid physical contact with co-workers.

- Cleaning services will be doubled at all four facilities with emphasis on disinfectant wipe downs on door knobs, push-bars and other areas that get heavy hand contact.
- All business travel requiring airlines will be prohibited. Personal travel is also strongly discouraged. Supervisor must be notified of all travel outside of region.
- Bottles of disinfecting hand cleaner are available throughout each district office.
 Employees are encouraged to use frequently.
- There will be limited interoffice travel and interaction among the districts and the EMPOWER Headquarters in Bracey.
- Lobbies are closed to all traffic and will remain closed until further notice.
- Employees are encouraged to bring their lunches and limit interaction with others at restaurants or food service establishments during lunch.
- Outside employees are to limit any interaction with others while in the field. If approached by a member/customer or other individual, employee will politely let them know that they must keep a safe distance and that they can contact the office by phone for assistance.
- Outside employees will avoid coming into the buildings whenever possible.
- Home fiber installs will continue at the discretion of the independent contractor. The contractor will pick up the equipment needed outside the back door, and return all paperwork using outside drop box.
- EMPOWER technicians are dispatched from home for new phone and internet installs and trouble calls and will pick up equipment in the same manner as the independent contractor.
- All deliveries to offices are to be delivered to outside dock and/or porch. No entry!
- Any employee experiencing pandemic related symptoms are to stay at home until symptoms have ceased or as per CDC guidelines.



Project

Code: AP430

Dear Resident,

Your account at 3021 BOXWOOD RD is part of an EMPOWER Broadband construction project to install a state-of-the-art fiber optic cable network. Best of all... sign-up fiber in an internet and home phone package by April 30, 2021 and the \$100 installation fee will be waived!

The days of settling for obsolete phone and slow internet are over! EMPOWER Broadband will bring you -- not just fast -- but THE FASTEST internet available with residential internet speeds starting at 50 Mbps! Our **unlimited** internet plans start at \$69.95 a month and you can add feature-packed crystal-clear telephone, including **unlimited** long distance, for just \$30 a month!

DON'T GET LEFT BEHIND!

Let's get started! Go to www.EMPOWERMEC.net, click on the box "Get Started" under "Check Availability and Register Your Interest!" Follow the online instructions to setup a SmartHub account and then we'll email you a link to complete the 2-year agreement. If you elect to receive phone service, complete the online Phone Number Porting Authorization Form and you can keep your current phone number. You may also submit the paper document that is enclosed.

Submit your application by **April 30**, **2021** and we'll proceed with building the fiber connection to your home while crews are working in the area. Fiber broadband construction is a multi-step process that will take several weeks to complete. Recognizing this, we want you to know that **the installation of main line fiber is scheduled for the end of third quarter**, **followed by drop construction and service to your home!**

Sign up today! Take advantage of these awesome new services! Don't hesitate to contact our business office at 833-787-2522 or e-mail empower@meckelec.org for more information.

Sincerely,

David Lipscomb

VP Marketing and Communications

NEED SERVICE FOR YOUR BUSINESS?

Call 1 (833)-RURALBB, today for customized solution to fit your business' needs!

EMPOWER BROADBAND IS AVAILABLE IN YOUR NEIGHBORHOOD.





P.O. Box 129 Bracey, VA 23919 1-833-RURALBB EMPOWER@meckelec.org

Residential Service Contract and Agreement of Terms & Conditions

Applicant Information:	Date:	Cu:	stomer # (office use only):
Home Phone:		Cell Phone:	Billing Email:
Print Full Name: (As acco	ount is to be	billed)	
Service Location Address	S:		
Street		City, State, Zip	County
Billing Address if different	t from Servic	e Location:	
If Owner of Service Local	tion is other	than Applicant, provide the following:	
Owner(s)Name:			Phone:
Address:			01.01.7
		Street	City, State, Zip
		Service(s) Requeste	ed
	FTTP Inte	rnet Service:	Add-On Telephone Service:
Premium Packa	ge (50/50 M	bps) Including Router, \$69.95 / month*	Residential Telephone, 2 Year Term
Ultra Package (100/100 Mbp	os), Including Router, \$119.95 / month*	\$30.00 monthly**
☐ Super Package	(300/300 Mb	ops), Including Router, \$199.95 / month*	l'd like to keep my phone number.
☐ Lightning Packa	ige (1 Gbps)	, Including Router, \$269.95 / month*	(Authorization on reverse side)
*Each Requires a Fibe	er Installatio	n Fee of \$100 and initial 24-month term	**Requires \$30 Activation Fee
***Please note, EMPOW and text notification.	ER's standa	d bill is delivered, at no charge, through	n the SmartHub App which includes the option for email
In addition to the stan	idard electi YES	ronic bill, I would like to receive a pa	per bill for an extra fee of \$15 per month.
The undersigned hereby carefully, as they are le		· · · · · · · · · · · · · · · · · · ·	he terms and conditions. <i>Please read the terms</i>
(Initial)	Conditions	eived, read and agree to the "Terms and of Service Agreement" can also be four w.empowermec.net/legal-information.	Conditions of Service Agreement". Full "Terms and at
(Initial)	address. mainline to home. I u	understand that this installation require the home, a small box to be mounted on derstand that I am responsible for mark	install Fiber Optic Cable and Equipment at my service is a fiber drop to be trenched, or aerially installed from the on the outside of my home and wire(s) to be run in my sting and identifying all private underground facilities prior mages to any underground facilities not identified by me.
Signatures PLEASE	SIGN FULL	NAME	
Applicant Signature:			Date:
Co-Applicant Signature:			Date:

Applicant's Signature - By signing this agreement, I agree to the terms of this application. I also confirm that I am the property owner, or I have permission from the property owner to have the Ordered Services installed.



Phone Number Porting Authorization

Dear Customer,

Current Service Provider: _

Phone Number

Thank you for choosing EMPOWER Broadband, Inc., as your telephone network carrier. You may continue to use your existing telephone number with EMPOWER Broadband, Inc. In order to transition your current telephone number to the EMPOWER Broadband, Inc. network, EMPOWER Broadband, Inc. must work with your previous service provider to ensure that your service is uninterrupted, and where applicable, to ensure that your number is transferred.

Your current provider requires this letter as proof that you have explicitly authorized and requested that your service and current telephone number be transferred to EMPOWER Broadband, Inc. By filling in all the information requested below and signing and dating this letter, you provide us with the authorization to initiate the process of transferring your service and telephone number to EMPOWER Broadband, Inc. You will then be able to use your old number with the EMPOWER Broadband, Inc. network.

Please ensure the following information EXACTLY matches information on your current local phone bill to prevent possible delays.

*Note: The Service address cannot be a PO BOX, and it may be different from your account mailing address.

Print Full Name: (As current phone account is billed)

Service Location Address:

Street City, State, Zip County

Billing Address if different from Service Location:

PLEASE DO NOT PLACE ANY NEW SERVICE ORDERS OR DISCONNECTS WITH YOUR CURRENT SERVICE PROVIDER ON THIS ACCOUNT, AS THIS WILL CAUSE A DELAY IN PORTING YOUR NUMBERS. EMPOWER WILL NEED A RECENT INVOICE COPY FROM YOUR CURRENT PROVIDER TO COMPLETE THE NUMBER PORTING PROCESS.

Phone Number

Telephone Number(s) to be Ported: *Note that all Telephone Numbers listed below must be associated with this Name.

By signing below, you authorize EMPOWER Broadband, Inc. to transfer your service from your current provider to EMPOWER Broadband, Inc. By signing below, you also authorize EMPOWER Broadband, Inc. to transfer your current telephone number used to provide service so that EMPOWER Broadband, Inc. may provide its network service to you. By signing below, you also authorize EMPOWER Broadband, Inc. to obtain billing information, customer service records, and other information required to provide you with service on the EMPOWER Broadband, Inc. network. Porting your current telephone number into the EMPOWER service area will require a one-time \$30.00 fee. If you are an existing EMPOWER telephone customer this fee will be waived. If a technician is required to come to the premise to connect phone lines additional fees will apply.

Note: Your current phone service provider will not allow the port of your numbers to EMPOWER Broadband, Inc. without authorized signature from an account owner or administrator shown in their records for this account. By filling in the Signature field above, you agree to use an electronic document and an electronic signature. You understand that electronic signatures are legally binding in the United States and other countries.

Signature	Date
OFFICE USE ONLY: Received Date:	By:
Installation Fee \$100 Other:	Phone Activation Fee: \$30 Dother:

EMPOWER YOUR FAMILY

WITH FIBER OPTIC INTERNET!

APPLY TODAY!

Plans Starting at \$69.95 per month No Phone Required



BROADBAND

833 - RURALBB (787-2522) - empowermec.net



AFFORDABLE, FAST, RELIABLE UNLIMITED DATA WITH EQUAL UPLOAD AND DOWNLOAD SPEEDS

Internet Plans



50/50 Mbps \$ 69.95 100/100 Mbps \$119.95

300/300 Mbps \$199.95

1/1 Gbps \$269.95

Add Digital Telephone Service

- unlimited long distance
- caller ID (name & number)
- call waiting
 - voicemail
- and much more for just \$30 monthly +tax

Visit empowermec.net and click Get Started or call 1-833-RURALBB (787-2522)

Internet Construction Zone

EMPOWER

BROADBAND

Internet Construction Zone

EMPOWER

BROADBAND

1 (833) RURALBB

"Having access to high-speed internet through the pandemic has been a life saver! For those who have not signed up — YOU WILL NOT BE DISAPPOINTED! GO FOR IT!"

> Amanda Roberson, Nathalie, VA Powered by MEC www.empowermec.net (434) 372-6244

> > EMPOWER Delivers!

Fiber has been well worth the wait. No more monthly quotas, modem fees, or waiting "forever" for downloads. No more having to dread storms or high winds and putting up with highly variable transfer speeds. No more "congestion" from neighbors' use. Plus, "Team Empower" is fantastic!

~ M. Connell







EMPOWER Delivers!

EMPOWER crews continue to work long days constructing fiber in numerous areas that are part of Coronavirus Aid, Relief, and Economic Security (CARES) projects. The crews seen above have been busy pulling fiber throughout the Clays Mill, Bethel and Sydnor Jennings communities. To see if your area is eligible and to sign-up for services, visit empowermec.net today

Building our way to your community!

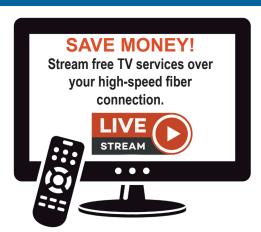
EMPOWER

BROADBAND Building Our Way To You!



EMPOWER Broadband is building state of the art fiber infrastructure to serve your area with the most advanced network for your internet and home-phone needs!

- **☞** Get the Fastest internet!
- No data limits!
- Add feature rich telephone too!



SIGN UP TODAY!

Visit empowermec.net

PREMIUM INTERNET PLAN



\$69.95 50 Mbps

ULTRA INTERNET PLAN



\$119.95 100 Mbps

SUPER INTERNET PLAN



\$199.95 300 Mbps

LIGHTNING INTERNET PLAN



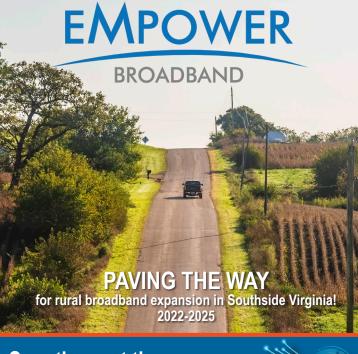
Add clear digital telephone ... including unlimited long distance, call waiting, caller ID, and voicemail for only \$30

per month!

If you need assistance please call (833) RURALBB (787-2522) or (434) 636-2274.



EMPOWER BROADBAND



Over the next three years

3,000 miles of fiber

passing 30,000 homes and businesses

To check availability, visit empowermec.net.

