

Application to DHCD Submitted through CAMS

Albemarle Broadband Authority

ABBA/CVEC VATI 2019

Application ID: 59810262018114923
Application Status: In Progress - DHCD
Program Name: Virginia Telecommunications Initiative 2019
Organization Name: Albemarle Broadband Authority
Organization Address: 401 Mcintire Road
Charlottesville, VA 22902
Profile Manager Name: Michael Culp
Profile Manager Phone: (434) 296-5891
Profile Manager Email: mculp@albemarle.org

Project Name: ABBA/CVEC VATI 2019
Project Contact Name: Michael Culp
Project Contact Phone: (434) 296-5891
Project Contact Email: mculp@albemarle.org
Project Location: 1415 Beacon Hill Rd
Afton, VA 22920-9600
Project Service Area: Albemarle County

Total Requested Amount: \$301,748.00

Required Annual Audit Status: Pending Review

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$301,748.00	\$1,152,975.00	\$1,454,723.00
Construction	\$301,748.00	\$1,081,475.00	\$1,383,223.00
Other: ABBA Contribution	\$0.00	\$71,500.00	\$71,500.00
Other: Tax Grant in Out Years \$71,500	\$0.00	\$0.00	\$0.00
Total:	\$301,748.00	\$1,152,975.00	\$1,454,723.00

Budget Narrative:

The Albemarle County Broadband Authority (ABBA) is contributing \$71,500 as a direct cash contribution. In addition, Albemarle County is issuing Tax Grants of up to \$71,500 for the new construction costs and infrastructure after the project is complete and spread over the first five years of operation. While this form of support does not provide up front project funding it is additional support from the county to CVEC in support of the project. CVEC will invoice ABBA for the construction costs and equipment costs, ABBA will verify and submit requests for payments from DHCD for the \$301,748.00.

Questions and Responses:

1. Project Area

Provide a map and description of the proposed geographic area including specific boundaries of the project area e.g.; street names, local and regional boundaries, etc. Explain why and how the project area(s) was selected. Attach a copy of your map(s).

Answer:

The Midway substation area of the CVEC electric distribution territory is a perfect location for the expansion of affordable, reliable gigabit speed broadband delivered over a world class fiber optic network. The map of the area is included in the attachment section and linked here:

<https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECMidwayMAP1213201842849.pdf> This area was chosen for many reasons; these are the top four:

1.The area is very poorly served for internet compared to nearby areas in the same county. Just to the east, Comcast and CenturyLink provide options up to 100mbps. To the north in Crozet residents may choose from service at up to 200mbps from Comcast. Into Nelson County to the west, fiber service is available along route 151. The students in this area attend Western Albemarle High School and its feeder elementary and middle schools*. The area has received national recognition for its education programs. Students in the Midway area without adequate internet connectivity compete daily with those who have much better internet access for homework and research. We worked with the Albemarle County Public School system and determined that 207 students are in the area; all of which require access to the internet to complete homework assignments.

2.The area is relatively needy. The area (spread among US census block group 2 and 3) typically has a lower

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average income and lower educational attainment than other areas of Albemarle County. The average age is higher than other areas of the same county, indicating that young people leave the area after high school and do not return to raise families, in part due to the lack of broadband.

3.The grant will provide a gateway expansion that will set the table for much greater future expansion of fiber availability in Albemarle County. The Midway area is a natural extension of the CVEC fiber network from an adjacent area in Nelson County being built out in early 2019. The extension into the Midway area allows for further future expansion into the western Albemarle area of White Hall and Free Union which also have no access to broadband internet, as well as an extension into the Red Hill area that has spotty availability of broadband service as well.

4.Albemarle County has shown a history of working to overcome the shortage of broadband in its rural areas, having worked to attract grant funds and private investment over a period of several years. The county not only has identified its needs, it actively seeks out and facilitates expansion by private providers to meet residents' needs.

The service area for this project begins at the Nelson County line and extends along Batesville Road and Craig Store Road toward Batesville in southwestern Albemarle County. The project map has major road names included to help identify the specific project area. The area has been designed to avoid overlap with current providers who reliably deliver internet service faster than 10mbps download and 1mbps upload. The project will extend fiber along existing overhead and underground distribution lines to lower the cost of installation as well as speed the construction.

A fiber infrastructure system extended through the area terrain of mountain peaks (i.e., Castle Rock 2374 ft elevation), rolling hills and low lying river banks (Mechums River, 620 ft) will provide reliable speeds regardless of weather, foliage, number of customers online and other factors that affect many other technologies. The establishment of fiber service in this area will also allow future growth outside of the CVEC system into areas of other electric providers where there is not adequate broadband service.

*Here is a breakdown of student counts in the service area:

Albemarle County Public Schools	# of students in project area
Western Albemarle High School	53
Monticello High School	2
Henley Middle School	45
Walton Middle School	0
Brownsville Elementary School	105
Red Hill Elementary School	2
TOTAL	207

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2.

Describe your outreach efforts to identify existing providers in the selected project area. Provide a map and list of all existing providers (fixed and wireless), and speeds offered within the project area. Provide a detailed explanation of how this information was compiled and the source(s).

Answer:

The incumbent telephone provider is CenturyLink (CTL). CTL received CAF II funding to deliver a level of up to 10Mbps download to some areas within the project area. CTL also extended infrastructure to deliver higher speeds nearby, but those areas have been excluded from the project area for this grant. CTL was contacted and the grant area coordinated to avoid overlap.

SCSBroadband (SCS) is a wireless provider in the area. When contacted SCS stated the area is covered with the ability to deliver 10Mbps download speeds. A survey done of homes and businesses in the area indicated that some residents contacted SCS and were told service was not available. There were responses from a small group of others indicating they did have wireless service from SCS and about half of those responses indicated they could not achieve 10Mbps on speed tests with their service. From the survey results it appears that SCS does not meet the requirements presently for delivering 10Mbps download and 1Mbps upload for 10 % of the potential customers in the proposed project area.

Both providers were contacted by email. The data they have reported to the FCC on Form 477 was reviewed. Residents were surveyed to provide actual service details. An advertisement listing the project was run in the local newspaper to allow these providers and any others to contact the applicant regarding overlap in service areas. The proposed service area maps were also provided to the other ISPs. The other providers did not provide accurate service area maps or clear delineation of where their service overlapped the proposed service area, making it impossible to provide a comprehensive map of service delivery in the area.

Highlights of customer survey responses from surveys (including speed test results) conducted by the Albemarle Broadband Authority in Oct. 2018 are included as well as an additional set of responses collected from a direct survey effort from CVEC to its members. The outreach for this project was well orchestrated and included a condensed and effective effort from citizens who attended an ABBA meeting in July 2018 and volunteered their time to help collect and sort through the results. An example of the ABBA Limited Broadband map/data collection tool and addresses who submitted more information is included in the optional attachment:

<https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECMemberCollectionandABBAdatacollection12132018120439.xlsx>

Citizens reported multiple efforts to obtain broadband, the fixed wireless speedtests and comments indicate that the availability of VATI minimum speeds is not being met on a consistent or in a reliable manner.

3. Project Need/Description

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 of 10 Mbps/1 Mbps or less, and with less than 10% service overlap within the project area. Describe the anticipated service overlap with current providers within the project

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area.

Answer:

The applicants and co-applicants used a number of methods to determine where service was available near and within the proposed project area. The FCC broadband map was reviewed as well as the Center for Innovative Technology Broadband Map for Virginia. Known providers were contacted. Residents of the area were surveyed. The co-applicant is confident the proposed service area includes less than 10% homes and businesses that have access to broadband service delivered reliably at speed exceeding 10 mbps download and 1 mbps upload.

Mapping existing providers is a difficult challenge. CenturyLink (CTL) covers most of the service area which probably equates to 80% of the area. Verizon covers the remaining area which is primarily the southwest portion of the project area. CTL does not provide service at speeds exceeding the 10/1 standard inside the service area to more than 10% of the homes and businesses.

Fixed wireless providers offer propagation studies to represent their service territories, but the studies are based on a number of assumptions and have proven to not be accurate based on the results of surveys of homeowners in the area who do not receive the speed promised from the provider. What service area lines to use for wireless providers is a quandary without a clear solution. SCS is the primary fixed wireless provider in the Midway area but the coverage inside the project area does not include more than 10% of the homes at the speed of 10mbps download based on the survey results from residents in the area.

Cell towers could be located but their coverage area is again hard to define. The providers generally do not like to provide the transmitter power specifications and their propagation varies significantly based on the power of the transmitter. Cell towers that cover the grant proposal area provide coverage and most residents use cell service for internet connectivity. These signals do not meet the 10/1 standard and often come with data caps, or speed slowdowns after certain amounts of data transfer.

Cable companies do not provide maps of their service areas in response to questions related to overlap. Comcast provides service nearby and was contacted about this project area. We coordinated removing units already served by Comcast in our application.

Surveys of homeowners provide some information on where service is available, but it also provides information about where the service is not available even though the service providers state that they have coverage.

4. Describe population both in terms of absolute numbers within the project area and the eligible users that will be served by the proposed project. Describe the basis for these projections.

Answer:

There are 341 accounts in the proposed project area. Homes in the area average 2.5 household members using an average of census blocks 2 and 3 from the most recent census data (censusreporter.org), indicating the broadband service will be made available 853 people. This output is included as an optional attachment linked here: <https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECMidwayAbsolutePopData1213201885007.pdf> If the assumption is made that 5% of the accounts can be served by wireless technology at the minimum level

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above 10/1 speeds, there will be 324 locations and 810 people served by the project.

5. Indicate the numbers of businesses and community anchor institutions the proposed project will pass in the project area.

Answer:

There are 39 electric business accounts in the area. The largest employer is Crown Orchards, which has transactions nationally and internationally. There are several towers with cell antennas and other antenna that will benefit from having fiber available to the tower. The other businesses tend to be smaller home businesses and farms. A lack of broadband availability limits the options for the healthcare industry, online retail startups, and many other businesses from considering the area as a location for expansion. There are business owners living in the area who do not have the option of working from home due to the lack of broadband availability. Henry Chiles, the owner of Crown Orchard, was contacted regarding the need for internet in the Midway area. He responded, "This area has very limited options for internet service. Having true broadband internet available at reliable high speeds would open many doorways for Crown Orchards as well as improving the quality of life for our employees and other local residents."

6. Provide the anticipated take rate for the proposed service within one year of project completion and describe the basis for the estimate. Also provide all actions to be implemented to reach the identified potential customers within the project area.

Answer:

The anticipated take rate is 40% in the first year with growth of another 5 to 10% in the second year as those with satellite contracts choose to take the fiber service instead of renewing contracts. In the years following, it is anticipated that connections will grow by 2% to 4% until saturation is reached around 70% to 75%. This is a conservative projection based on previous construction in 2018 in a similar rural area (Appomattox County) has resulted in a 40% take rate.

Potential customers will have three mailings and also be invited to a community meeting to provide information on the availability of service. All customers will be notified by CVEC when field engineering for the electrical make ready construction begins, and again when fiber construction crews move into the area to place fiber optic cable on the poles. They will then receive a letter from Firefly Fiber Broadband detailing the services available and offering free connections if they preregister for service. Door hangers detailing the offerings and providing contact information will be placed on all doors in the service area after the Firefly mailing goes out. The potential customers will also be invited to a community meeting for a question and answer session related to the services.

In addition, CVEC and Firefly will both use social media and their websites to notify potential customers of the project work in the area.

7. A statement whether the proposed project is targeting the "last mile," "middle mile," or "backbone" portion of the broadband infrastructure.

Answer:

CVEC will install a fiber to the home (FTTH) network. It is a last mile system that will make world class, gigabit speed service available to every home and business within the project area.

8. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Will the wireless co-applicant own or lease the radio mast, tower, or other raised structure onto which the wireless infrastructure will be installed?

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Answer:

NA - Fiber to the Premise Project

9. Provide a description of the broadband service to be provided, including estimated download and upload speeds, whether that speed is based on dedicated or shared bandwidth, and the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate.

Answer:

Internet service will be available at symmetrical gigabit level speed to every home and business. Firefly has a 10gbps backhaul connection from the network head end that can be easily expanded as necessary to assure each user will be able to transmit and receive at the 1gbps rate should they choose to. Some users may choose the 100mbps option, thereby leaving more capacity in the network. Diversity of data usage typically will allow a 10gbps connection to meet the needs of thousands of end users in systems offering gigabit level service. Network monitoring will assure there is never a slow down or lack of bandwidth for the users to access the internet at the speed (1gbps or 100mbps) for which they pay.

10. 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. Also describe specific advantages of using this technology. Provide a detailed explanation on how this information was compiled and source(s). For wireless projects, provide a propagation map including the proposed project.

Answer:

The project will utilize existing CVEC fiber from its connection at the Martins Store substation to connect the CVEC fiber backbone ring to the new communications hut set at the Midway substation. The network switching and routing gear will be placed in the hut and new fiber network cables will be extended from there to the individual homes, using overhead construction where there are presently overhead electric utilities and underground construction where there are existing underground utilities. The use of fiber optic cable provides a world class solution to deliver broadband internet service for now and for the foreseeable future to the rural residents. This technology provides the most reliable, highest speed service transfer of data in the marketplace.

A map of the service area is included showing the primary internet points of presence and network components.

The map is linked here:

<https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECMidwayMAP1213201842849.pdf>

11. Project Readiness

What is the current state of project development (i.e. planning, preliminary engineering, final design, etc.)? Prepare a detailed project timeline or construction schedule, which identifies specific tasks, staff, contractor responsible(s), collection of data, etc., and estimated start and completion dates. The timeline should include all activities being completed within 12 months of contract execution with DHCD.

Answer:

The Midway project has been included in the overall network preliminary plan developed by CVEC to eventually connect all of its members. The network plan provides for planning for the fiber backbone and loops. The preliminary design also included a plan for fiber to be placed on or adjacent to all electric distribution facilities,

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which provides an accurate estimate of overhead and underground miles and number of homes passed. All GIS data for each home and for the full path of the fiber from headend to the individual homes network interface devices (NIDs) is available from the CVEC mapping and information system.

The CVEC fiber building team will be able to begin design work within a month of the signing of the grant documents. The first step will be an automated preliminary design that provides a bill of materials to begin material procurement. Project management staff will begin applications for permits from VDOT, railroads and other agencies necessary for construction. Letters will be sent to each homeowner and business notifying them of the upcoming work that will require several contractors to work in the rights of way with different trucks and equipment.

Field technicians from Conexon then confirm the autodesign details and provide feedback to develop a final design. This effort will take approximately four weeks.

The fiber design will be provided to the contract make ready engineering and staking crews from Power Tech. These technicians will visit each pole and home to provide the design for modifications to the existing electric facilities to make room for the fiber. These technicians will also require 4 weeks to complete their work. The communications hut will be set during this month.

The design will be provided to Richardson Wayland Electric Company (RWEC), or another electric distribution live line contractor who will perform the make ready work. RWEC will bring in the necessary crews to accomplish all of their construction within 4 weeks.

Once the line is ready for fiber, S&N Communications, or another fiber construction company, will install the fiber from the hut to each home that signs up for service. Overhead crews will place strand then lash the fiber optic cable to it and bring the fiber down at splice and splitter enclosures on the poles. Underground crews will work in parallel placing underground duct and then pulling in fiber. Splicers will follow the crews, splicing the taps and then the final splices at the NIDs to have service ready to the homes. This work should take 4 to 6 weeks.

The CVEC subsidiary Firefly will then perform installs to place optical network terminals, routers and mesh extenders as necessary to provide service that can reach gigabit level speeds at each home and business. Installations will be completed within two weeks after the final fiber is placed.

From start to finish the project should take 20 weeks. If there are unusual weather delays the work should still be accomplished well within the one year time frame.

CVEC also has the ability to overlap work with projects in other substation areas, with fiber design field techs working in one substations while make ready engineering is in another area and make ready construction in another to allow for multiple projects to be underway at a single time and all schedules to be met for grant agreements in different localities.

Week 1 – Automated fiber design

Material ordering

Permitting

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Member contact

Week 2-5	Fiber design field verification and final design
Week 6-9	Make ready engineering
Week 10-13	Make ready construction
Week 14-18	Fiber construction
Week 17-20	Service installation

12. Matching funds: Provide a description of the matching funds the applicant and co-applicant will invest in the proposed project, (VATI funding cannot exceed 80% of total project cost). The Funding Sources Table should be completed.

i. For each element of matching funds in the description, indicate the type of match (cash, salary expense, or in-kind contribution).

ii. Identify whether the applicant or co-applicant is responsible for providing each element of the proposed matching funds.

iii. Include copies of vendor quotes or documented cost estimates supporting the proposed budget.

Answer:

- i. Matching funds from CVEC will be in the form of cash. CVEC will draw the funds from an approved loan from the Rural Utilities Service for \$66.5 million for fiber construction. The Virginia State Corporation Commission has approved this new debt for CVEC in case PUR-2018-00152. Related documents are included in attachment CVECCombinedFinancialsUSDAVA0029BD8.PDF
- ii. CVEC will provide the matching funds during construction. Albemarle County has entered into an agreement that will provide an incentive to CVEC for delivering broadband service in the area. This incentive will be the county's matching funds for the project. Albemarle will contribute up to 5% of the project cost returned over a five year period beginning the year after construction is complete based on continuing performance of CVEC in providing the service. This tax grant agreement is included in the attachment section as "CVEC EDA ABBA Tax Grant Agreement". The Albemarle Broadband Authority is also contributing \$71,500 cash to the project reflected in the cost estimates and funding table.
- iii. A copy of the Conexon feasibility study cost estimate assumptions is included as attachment CCVECCombinedFinancialsUSDAVA0029BD8.PDF. Actual charges from vendors for the construction completed in 2018 have verified the assumptions. Actual costs are not included due to protect proprietary pricing from vendors.

13. Identify key individuals, including name and title, who will be responsible for the management of the project. Describe their role and responsibilities for the project. Present this information in table format.

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Answer:

NAME	TITLE	Role/Responsibilities
Mike Culp	Albemarle Broadband Authority, Vice Chair	Coordination with County Officials, CVEC review, outreach, submittal of all CAMS reports
Gary E. Wood	President and CEO CVEC and Firefly Fiber Broadband	Project oversight and leadership
Bruce Maurhoff	Sr VP and COO CVEC and Firefly Fiber Broadband	Construction oversight
Tina Mallia	VP and CFO CVEC and Firefly Fiber Broadband	Financial records and oversight
Randy Klindt	Partner Conexon	Design and Project Management Oversight
Jesse Ward	Project Manager Conexon	Project management for fiber and electric make ready construction

14. Applicant and Co-Applicant: A description of the public-private partnership involved in the project. Detail the local government assistance: Local government co-applicants should demonstrate assistance to project that will lower overall cost and further assist in the timely completion of construction, including assistance with permits, rights of way, easement and other issues that may hinder or delay timely construction and increase cost.

i. If the partnership is formalized in a written agreement provide a copy of that agreement.

ii. If the partnership has not been formalized, provide a short description of the project management role, financial commitment, or other contribution to the project for the applicant and co-applicant and any additional partners.

Answer:

Albemarle has agreed to provide tax grant payments to CVEC and its subsidiary for the first five years after the internet service is made available to the county residents. This will provide up to 5% of the project cost essentially rebated in return for the continuing performance of having service available. This fully executed agreement is included as one of the optional attachments, "CVEC EDA ABBA Tax Grant Agreement".

Albemarle through its Broadband Authority ABBA, also is providing \$71,500 in matching funds for the Midway project to offset the cost of building the proposed project in the grant area.

ABBA also is providing guidance and administrative assistance during the grant application process. They also will provide assistance with permitting and public rights of way and easements to facilitate the construction of the project. They will provide the interface to DHCD for proof of construction and payment of the grant as well.

ABBA and CVEC have signed an agreement to work together on this grant project. A copy of the agreement has also been uploaded to the grant application site.

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15. Project Budget and Cost Appropriateness

Applicants shall provide a detailed budget as to how the grant funds will be utilized, including an itemization of equipment and construction costs and a justification of proposed expenses. Expenses should be substantiated by clear cost estimates.

Answer:

Cost estimates are based on a feasibility study performed for CVEC by Conexon in 2017. Conexon is a consulting and design firm which has been responsible for construction of tens of thousands of miles of fiber at electric cooperatives across the US. Their assumptions document provides details of their estimates for overhead and underground fiber construction; that document is attached as the Supporting Documentation of Cost Estimates:

<https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECSupportingDocofCostEstimatesFTTHMode11213201885758.pdf>

The detailed derivation of costs document also provides justification of the proposed expenses.

The grant funds will be processed by ABBA, ABBA will review invoices and validate as appropriate for payment, request reimbursement from DHCD, and then issue payment. The funds will be used for construction costs, engineering, and electronics as determined by ABBA and DHCD.

CVEC is well into construction of its first substation and has begun construction on its second substation. It has bid materials for almost 800 miles of construction and has negotiated proprietary pricing with vendors for communications huts, head end electronics and many other components of the system.

The pricing in the estimates for this project are based on the original estimates from Conexon, modified where necessary based on actual pricing from the ongoing CVEC fiber buildout.

CVEC and its subsidiary have partnered with Albemarle County in a number of meaningful ways to assure gigabit level broadband service is delivered in the rural areas of Albemarle County. Albemarle will provide the cooperative and its subsidiary an economic incentive equivalent to the amount of property tax paid by CVEC on its new infrastructure investments in the county for the first five years of service for any infrastructure built in the next four years with declining returns after that period. This agreement could provide over \$500,000 in incentive payments to CVEC and its subsidiary based on a buildout reaching all CVEC members in the county.

Grant funds will be used to offset costs on overhead construction. The proposal budget includes VATI funds paying for 29% of the labor for overhead construction as well as paying 100% for strand, overhead fiber, associated hardware costs and the communications hut. All other costs will be paid by CVEC and the ABBA direct grant. CVEC will also be responsible for all cost overruns in these categories or additional costs in the project.

16. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated. Finally, the three component scores are averaged together and converted to a 30 point scale to form a composite score.

Answer:

- i. State Share for the Total Project = \$301,748.00; this is 20.7% of the total cost of the project.

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- ii. 341 units will be passed = \$885.00 per unit State cost.
- iii. All units will be offered 1gbps.

17. A description of applicant and co-applicant's history or experience with managing grants and constructing broadband communications facilities in the Commonwealth of Virginia and elsewhere.

Answer:

CVEC has been building infrastructure in the rural central Virginia countryside for more than 80 years. This year it received an award from the Tobacco Regional Revitalization Commission for construction of a broadband project to serve over 1600 homes and businesses in Appomattox County. The project is under construction with completion expected in January 2019. The project not only met all project goals but has been expanded to include another 180 homes and businesses in an adjacent unserved area.

Albemarle County has worked with numerous state and federal agencies on many different types of Grants. Albemarle IT completed the Virginia Telecommunication Planning Initiative Grant with DCHD. Albemarle County and CenturyLink were awarded \$118,000 during the 2017 VATI and completed the project ahead of schedule and within budget. Albemarle County then submitted with Comcast for a 2018 VATI application and that project was awarded \$473,366. The project was completed on time and under budget.

18. Service

Describe the Internet service offerings to be provided after completion of this project and your price structure for these services. The service offerings should include all relevant tiers.

Answer:

There will be two options for internet service:

Firefly Light	100mbps symmetrical	\$49.99/mo.
Firefly Flash	1gbps symmetrical	\$79.99/mo.

There will also be an option for Voice over IP phone service. The VoIP service is \$34.99 if purchased standalone or \$29.99 if purchased with internet service.

Internet service is delivered as a managed wifi service without extra charge to the customer. There will be a Lifeline option for voice or broadband that will provide a \$10 monthly discount for the accounts which qualify under the FCC definitions of low and moderate income households.

19. Additional Information

Any other equitable factor that the applicant desires to include.

Answer:

The Albemarle and CVEC partnership project to deliver true broadband to the rural southwestern area of Albemarle County should be a priority for funding from the VATI program. Not only does the proposed project meet all requirements, but it provides the highest level of speeds available in the world at extremely competitive prices. It leverages the electric distribution system infrastructure already in place, and it is based on a technology that is as future proof as any known in the communications field today. The grant funds request is also well below

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50% of the project cost, providing a much higher match and an excellent return on investment for the state grant dollars.

The project will make 1gbps speed available to each home or business. By changing the electronics at the communications hut with a different card in the electronics chassis, the same fiber can deliver 10gbps today. At Ozarks Electric in Arkansas, the same vendor used in this project (Calix) is testing a new laser with theoretical limits of 80gbps over the same type of fiber and same distribution design. The system has been in place and testing at speeds over 50gbps for several months in the early stages of the testing. The fiber optic system provides a long term solution to the exponential growth in data transfer required in broadband systems.

The project also provides peripheral benefits to the community and state. Contractors use local businesses for meals, gas and lodging giving a nice bump to the economy during construction. CVEC is presently employing contractors headquartered in Virginia for its two largest labor contracts on the fiber projects, allowing all of the contract employees' earnings to be spent with other Virginia businesses and multiplying the benefits of the investment through the state. The final infrastructure will be a long term asset to members of CVEC, providing a high speed network that will allow new technologies to improve efficiency, improve reliability and lower power costs. The new plant investment will also increase the tax base in Albemarle County, providing tax revenues through its utility tax on an annual basis.

The financial benefits also are returned to the state and to the county, because CVEC is a not for profit electric cooperative owned by its members. All profits that Firefly Fiber Broadband will realize will be returned to its parent company, Central Virginia Electric Cooperative and its members helping to reduce the cost of electricity for the cooperative members. The combination of the best technology and fastest speed, service from a local company at a very competitive price, with almost all benefits during and after construction going to the community and state, differentiate this project. With Albemarle County's strong commitment in dollars and time, the county has also stepped forward to make a clear statement of the importance of solving the rural broadband problems in their locality. There is no other combination of public and private partnership that will provide the same level of benefits for the amount of grant dollars requested.

Attachments:

Derivation of Cost (Project Budget)

[CVECCostAlbemarleMidway1213201851718.xlsx](#)

Project Management Plan

[CVECProjectManagementPlanAlbemarleMidway1214201831334.docx](#)

Supporting documentation for costs estimates

[CVECSupportingDocofCostEstimatesFTTHModel1213201885758.pdf](#)

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Map(s) of project area, including proposed infrastructure

CVECMidwayMAP1213201842849.pdf

Map(s) or schematic of existing broadband providers (inventory of existing assets)

cvecexistingprovidersattachment512132018100114.pdf

Documentation of relationship between applicant and co-applicant (formal or informal)

CVECABBAVATIMOU1213201842900.pdf

Two most recent Form 477 submitted to FCC

cvec4771213201893342.pdf

Documentation for in-kind contributions, including value(s)

CVECInKindABBAContribution1212201841922.pdf

Documentation supporting project costs (i.e. vendor quotes)

cvecattachment912132018103723.pdf

Documentation of source of match funding

CVECCombinedFinancialsUSDAVA0029BD81211201811639.pdf

Documentation that proposed project area is unserved based on VATI criteria

cvecattachment1112132018100649.pdf

Documentation that proposed project area is not designated for Connect America Funding (CAF)

cvecattachment1212132018101431.pdf

Funding Sources Table

cvecAbbaVATIFundingSourcesTable1213201861932.docx

(Optional) || CVEC Midway Population Data

CVECMidwayAbsolutePopData1213201885007.pdf

Application to DHCD Submitted through CAMS

Albemarle Broadband Authority

ABBA/CVEC VATI 2019

(Optional) || CVEC ABBA Survey Instrument and Results Example

CVECMemberCollectionandABBAdatcollection12132018120439.xlsx

(Optional) || CVEC EDA ABBA Tax Grant Agreement

CVECABBAEDATaxGrantBroadbandAgrmnt1214201825850.pdf

CDBG Derivation of Cost

Product			Total	VATI	Non-VATI	Source of Estimate	Date
EXAMPLE							
<u>Construction</u>							
200 LF of fiber @\$150/LF			\$30,000	\$15,000	\$15,000	Company A	9/5/2016
Tower			\$100,000	\$80,000	\$20,000	Company B	9/5/2016
Engineering			\$20,000	\$0	\$20,000	ABC Engineering Firm	9/5/2016

30000

Product	Units	Cost per unit	Total	VATI	Non-VATI	Source of Estimate	Date
Overhead labor	36.21	9240	\$ 334,580	\$ 97,028	\$ 237,552	Conexon consultant Confirmed with 2018 project	12/10/2018
Steel strand	36.21	1109	\$ 40,157	\$ 40,157	\$ -	Conexon consultant Confirmed with 2018 project	12/10/2018
Overhead fiber	36.21	2640	\$ 95,594	\$ 95,594	\$ -	Conexon consultant Confirmed with 2018 project	12/10/2018
Hardware	36.21	800	\$ 28,968	\$ 28,968	\$ -	Conexon consultant Confirmed with 2018 project	12/10/2018
Splicing (not including taps and splitters)	36.21	1100	\$ 39,831	\$ -	\$ 39,831	Conexon consultant Confirmed with 2018 project	12/10/2018
Fiber design and field confirmation (OH)	36.21	1200	\$ 43,452	\$ -	\$ 43,452	Conexon consultant Confirmed with 2018 project	12/10/2018
Construction management (OH)	36.21	827	\$ 29,946	\$ -	\$ 29,946	Conexon consultant Confirmed with 2018 project	12/10/2018
Overhead electric make ready construction	36.21	4500	\$ 162,945	\$ -	\$ 162,945	CVEC based on 2018 project	12/10/2018
Underground labor	6.82	47,520	\$ 324,086	\$ -	\$ 324,086	Conexon consultant Confirmed with 2018 project	12/10/2018
Underground conduit	6.82	2957	\$ 20,167	\$ -	\$ 20,167	Conexon consultant Confirmed with 2018 project	12/10/2018
Underground fiber	6.82	2140	\$ 14,595	\$ -	\$ 14,595	Conexon consultant Confirmed with 2018 project	12/10/2018
Pedestals and vaults	6.82	2640	\$ 18,005	\$ -	\$ 18,005	Conexon consultant Confirmed with 2018 project	12/10/2018
Hardware	6.82	250	\$ 1,705	\$ -	\$ 1,705	Conexon consultant Confirmed with 2018 project	12/10/2018
Splicing (not including taps and splitters)	6.82	900	\$ 6,138	\$ -	\$ 6,138	Conexon consultant Confirmed with 2018 project	12/10/2018

CDBG Derivation of Cost

Fiber design and field confirmation (UG)	6.82	1200	\$ 8,184	\$ -	\$ 8,184	Conexon consultant Confirmed with 2018 project	12/10/2018
Construction management (UG)	6.82	3874	\$ 26,421	\$ -	\$ 26,421	Conexon consultant Confirmed with 2018 project	12/10/2018
Outside plant splitters	341	159	\$ 54,219	\$ -	\$ 54,219	Conexon consultant Confirmed with 2018 project	12/10/2018
Service drop cost	136	550	\$ 74,800	\$ -	\$ 74,800	Conexon consultant Confirmed with 2018 project	12/10/2018
Communications hut (10x24 with A/C & power)	1	50,000	\$ 40,000	\$ 40,000	\$ -	CVEC based on 2018 project	12/10/2018
Communications hut installation	1	10,000	\$ 10,000	\$ -	\$ 10,000	CVEC based on 2018 project	12/10/2018
Communications hut electronics and inverters	1	80,930	\$ 80,930	\$ -	\$ 80,930	CVEC based on 2018 project	12/10/2018
						ABBA Contribution as Non-VATI \$71,500	
Totals			\$1,454,723	\$301,748	\$1,152,975		

CVEC ABBA Midway VATI 2019 Project Management Plan

Task	Responsible Person	Responsible Entity	Proposed Timeline							
			January	February	March	April	May	June	July	August
Accept VATI Funds	Mike Culp	ABBA								
Complete Midway Design	Network Engineer	CVEC								
Procure Equipment	Purchaser	CVEC								
Coordinate with DHCD	Project Managers	CVEC and ABBA								
Schedule Crews	Project Manager	CVEC								
Monitor Deployments and Test	Project Manager	CVEC								
Notify Members of New Service	Project Managers	CVEC and ABBA								

CVEC intends to manage the grant project using the same team and same approach that it has established for building out a fiber to the home network passing 9356 homes and businesses between August 2018 and July 2019. The one year effort will result in the construction of three substation areas that will total 556 miles of overhead fiber and 216 miles of underground plus three communication huts. All of the homes and businesses who sign up for service will also have drops installed and service connected within the year.

CVEC developed a team of business partners that provide the experience and resources necessary to design and build fiber along the rural electric distribution lines at a pace of 15 miles per week on average. The team is committed to the full first year buildout, after which CVEC may choose to rebid portions of the construction work or continue with the same partners.

CVEC has made the fiber construction project a priority within the cooperative. The internal project management team includes the three company officers: Gary Wood, CEO; Bruce Maurhoff, COO and Tina Mallia, CFO. The inclusion of the executive team assures that the project will receive the attention necessary to meet the aggressive schedule.

The CEO serves as executive project manager with the COO leading the internal CVEC operations and overseeing contractor liaisons. Conexon serves as the design contractor and also provides contract project management for make ready construction and fiber construction. Conexon uses a combination of office based design with field positions dedicated to the CVEC project to provide the necessary design and project oversight. Conexon also coordinates permits as required with VDOT, railroads and any other agencies. Conexon reviews invoices from construction partners, compares to design and material purchases, and reconciles differences before recommending them to CVEC for payment.

CVEC procures the material, and is using Graybar on a contract basis to provide material management for the fiber materials. The cooperative also provides GIS data on the existing electric system, handles customers contact and questions about the various contractors working in the rights of way, and provides a full time contractor liaison in the field to expedite resolutions to field encountered problems.

PowerTech provides contracting staking and field engineering resources as necessary (typically 8 to 12 employees) to meet schedules for field engineering every mile of overhead line and prepare staking sheets showing the necessary changes at each pole to prepare for the fiber installation.

Richardson Wayland Electrical Company (RVEC) provides electric line contracting to perform the make ready construction to prepare the poles for the fiber installation. When necessary, CVEC has used a second contractor and has added internal crews to assure the work stays on schedule regardless of weather issues. Typically there will be 8 to 12 crews daily working on make ready modifications to the poles.

S&N Communications performs all fiber construction, overhead and underground, as well as placing the service drops to the individual homes. On a typical day, S&N might have as many as 8 to 10 overhead crews and a similar number of underground crews on the project.

Project schedules are coordinated between the parties. Weekly project meetings review status and schedule as well as provide opportunities for issue identification and resolution.

General Assumptions

GPON fiber to the home
 16:2:1 split (utilizing 2:1 headend split and distributed taps or 16:1 effective field splitters)
 Calix E7 access equipment
 Installations capitalized as short term asset
 Battery backup installed on ONT at subscriber's expense
 Heavy reliance on contractors for construction, installation, maintenance
 Redundant 10 gigabit paths to internet
 All passive network (no remote active cabinets)
 No email offering
 Strand and lash construction in power zone when necessary to avoid make ready
 Partner to provide voice

Construction Assumptions

Miles main line distribution plant		3,474
% aerial		79%
Drops success based		Yes
Base cost per mile - underground	\$	61,480
Labor per mile	\$	47,520
Conduit	\$	2,957
Fiber	\$	2,140
Design and walkout	\$	1,200
Peds and Vaults	\$	2,640
Hardware	\$	250
Splicing (not including taps/splitters)	\$	900
Construction management	\$	3,874
Materials management	\$	-
Base cost per mile - aerial	\$	16,546
Labor per mile	\$	9,240
Strand material cost per mile	\$	739
Fiber average cost per mile	\$	2,640
Design and walkout	\$	1,200
Hardware	\$	800
Splicing (not including taps/splitters)	\$	1,100
Construction management	\$	827
Materials management	\$	-
Make ready cost per mile (direct fiber)	\$	3,000
Average OSP splitter cost per port (passing)	\$	159
Cost per service drop	\$	550
Homes and small businesses passed		36,633
Large businesses and cell towers passed		600
Initial res/bus customer take rate		35%

Initial large business take rate		10%
Customer ramp period (months)		24
Churn rate (per month)		0.2%
New homes per year (%)		1.6%
Penetration growth rate per year (after construction)		3.0%
Maximum penetration		60.0%
Interest rate on loans		3.8%
Loan term in years		30
Startup costs (legal, compliance, contracts, permitting)	\$	250,000
Property taxes (% of NBV of property)		0.75%
Maintenance per mile	\$	50.00
Maintenance capex (% of distribution plant)		0.3%
Annual expense increases		3.0%
Long term depreciation (years)		30
Mid term depreciation		10
Short term depreciation		5
Fiber lease charged to OE rate per mile per year	\$	3,100
Lease rate charged to OE per service drop per year	\$	58.30
Lease rate annual escalator		3%
Fiber lease rate per mile during construction	\$	3,000
Lease rate per service drop during construction	\$	40.00

Operating Entity Assumptions

Video headend (if selected)	\$	-
Routers, back office, marginal head-end and licenses	\$	700,000
OLT electronics cost per splitter port	\$	66.89
Blended video rate (includes equip)	\$	84.07
Blended data rate	\$	60.57
Blended telephone rate	\$	38.14
Percent taking video		0%
Percent taking data		100%
Percent taking a phone service		35%
Video takerate annual decline		-1%
Phone takerate annual decline		-1%
Blended bundle discount per connect	\$	-
Large customer retail rate (blended)	\$	350.00
Annual increase - retail (not video)		0.0%
Fee per installation (contribution)	\$	100
Annual increase - video rates		4.0%
Potential annual CAF Subsidy	\$	-
Blended Video Cost	\$	66.70
Blended telephone cost	\$	9.22
Annual video rate increases		4.0%
Tech support fees - per subscriber	\$	1.75

Annual telephone increases		0.0%
Head end and electronics maintenance per year as % of value		2.0%
Base bandwidth, data and video transport per month	\$	12,000
Base bandwidth capacity (Mbps)		4,096
Over subscription ratio N:1		250
Reserved bandwidth per large commercial data cust		20
Cost per incremental Mbps	\$	2.00
Growth rate of cost per Mbps		-0.5%
Annual bandwidth growth per customer		3.0%
Interest rate on loans		3.9%
Term in years		20
Years of loan that are interest only		1
Increase in install fee after const	\$	50.00
Introductory promotion monthly value	\$	-
Introductory promotion period in months (MAX 12)		0
Startup costs (legal, compliance, contracts, permitting)	\$	150,000.00
Property taxes (% of NBV of property)		1%
Marketing per new passing	\$	25.00
Bad debt (% of revenue)		0.5%
Utilities (per month)	\$	3,000
Average new vehicle price	\$	60,000.00
Vehicle life in years		6
Vehicle repairs/fuel (each/month)	\$	600.00
Annual expense increases		2.0%
Other operating expense (% revenue)		0.3%
Maintenance capex (% of distribution plant)		0.3%
Long term depreciation (years)		30.00
Mid term depreciation		10.00
Short term depreciation		5.00
Expected income tax rate (federal, state, and local)		39%
Average installation cost per connect	\$	140
Set top box - HD - cost per box	\$	-
Set top box - HD/DVR - cost per box	\$	-
Set top box - HD - boxes per video customer	\$	-
Set top box - HD/DVR - boxes per home	\$	-
Head end license fee per subscriber	\$	-
Install materials (in-house) - per install	\$	50
ONT cost	\$	205
Annual price increases		0.0%
Technical average annual salary	\$	65,000
Marketing average annual salary	\$	65,000
Average number of subscribers per technician		2500
Average technician salary	\$	45,000
Average number of subscribers per CSR		2500
Average CSR salary	\$	35,000

Administrative positions in year 1		5
Capex per new employee	\$	5,000
Travel expenses (per administrative position)	\$	5,000



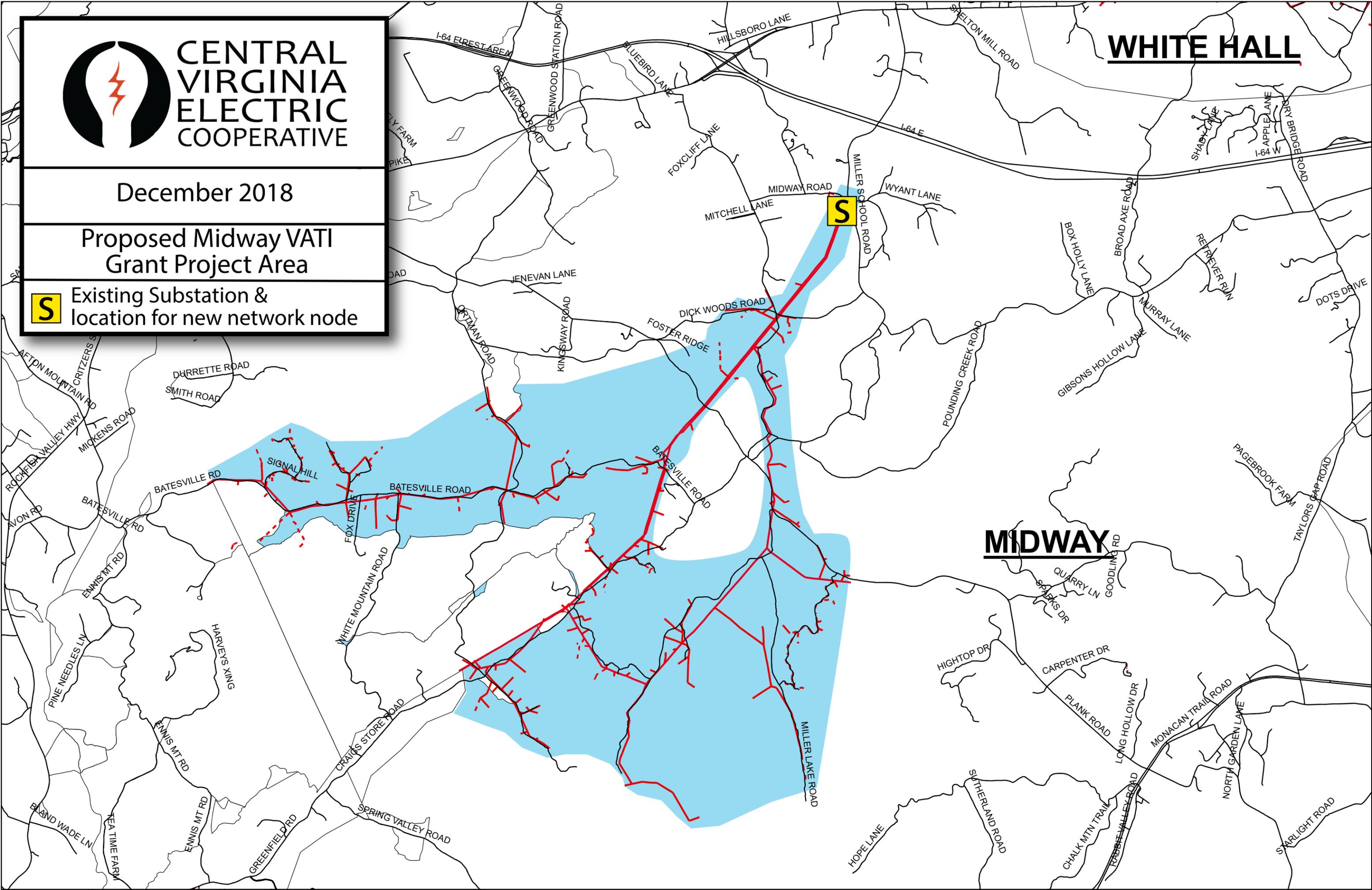
**CENTRAL
VIRGINIA
ELECTRIC
COOPERATIVE**

December 2018

**Proposed Midway VATI
Grant Project Area**



Existing Substation &
location for new network node



Dec. 13, 2018

CVEC/CVSI Existing Providers for Albemarle VATI 2019 Attachment 5

Attachment 5 – existing providers

Mapping existing providers is a difficult challenge. There is an existing telephone provider, CenturyLink, who covers most of the service area which probably equates to 80% of the area. Verizon covers the remaining area which is primarily the southwest portion of the project area. CenturyLink does not provide service at speeds exceeding the 10/1 standard inside the service area to more than 10% of the homes and businesses.

Fixed wireless providers offer propagation studies to represent their service territories, but the studies are based on a number of assumptions and have proven to not be accurate based on the results of surveys of homeowners in the area who do not receive the speed promised from the provider. What service area lines to use for wireless providers is a quandary without a clear solution. SCS Broadband is the primary fixed wireless provider in the Midway area but the coverage inside the project area does not include more than 10% of the homes at the speed of 10 mbps download based on the survey results from residents in the area.

Cell towers could be located but their coverage area is again hard to define. The providers generally do not like to provide the transmitter power specifications and their propagation varies significantly based on the power of the transmitter. Cell towers that cover the grant proposal area provide coverage and most residents use cell service for internet connectivity. These signals do not meet the 10/1 standard and often come with data caps, or speed slowdowns after certain amounts of data transfer.

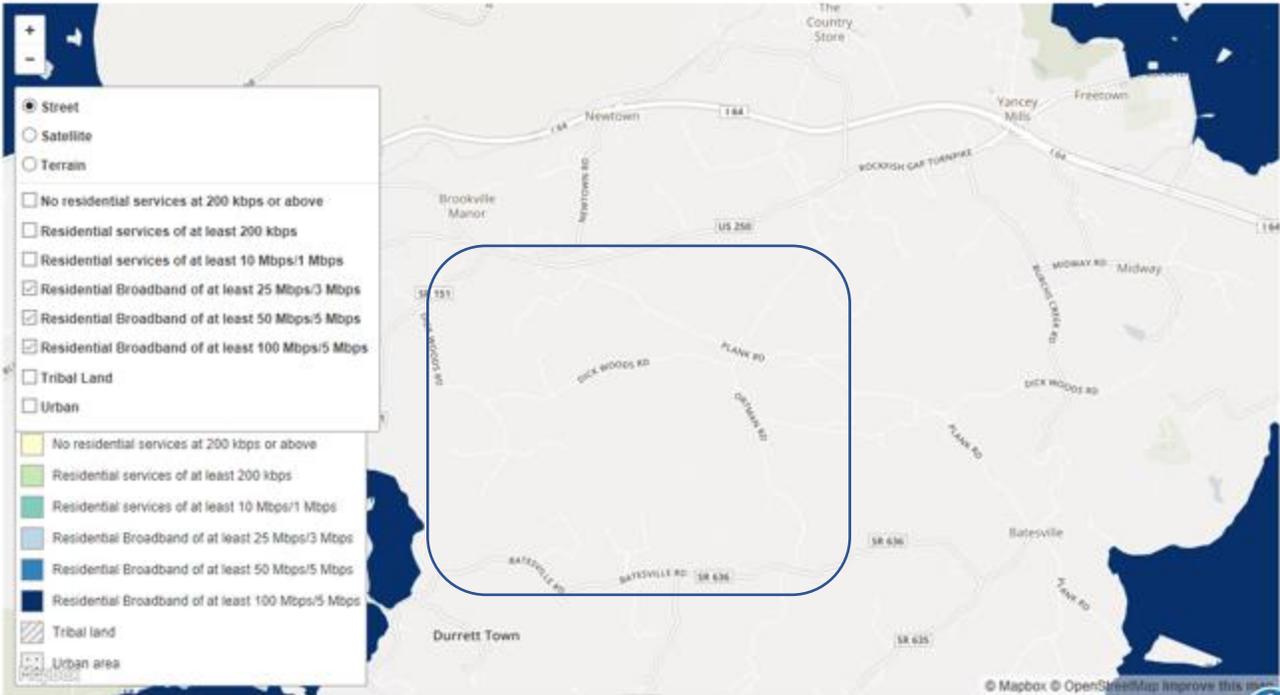
Cable companies do not provide maps of their service areas in response to questions related to overlap.

Surveys of homeowners provide some information on where service is available, but it also provides information about where the service is not available even though the service providers state that they have coverage.

The co-applicants contacted Comcast, CenturyLink, and SCS Broadband about the project area. With the extraction of the Comcast and CenturyLink served areas; we are reducing the overall L.U. to avoid the 10% overlap. An in person meeting with Nathan Daugherty of Comcast, reviewing the map indicated agreement. E-mail exchanges between CenturyLink Network Design required a reduction of the proposed area which CVEC performed.

A service map from the FCC is included as an Attachment. It shows that our project area east of Route 151 in Nelson County and before the urban ring of Charlottesville – shows a lack of speeds at the VATI threshold (turning off the 10/1 service layer shows nothing at the 25/3 speeds) Our efforts will exceed the 25/3 speeds and fill in this unserved area.

Address - Afton, 22920, Virginia, United States



This map shows the availability of fixed residential broadband services by speed in an area. Enter your address to find the speed of services in your area. Tribal lands and urban areas can be displayed by clicking the appropriate box in the legend. Click on the symbol in the upper left hand corner next to + and - to change the view from a street view to a satellite or a terrain view. Areas without any population are shown in white. Yellow indicates areas without residential services of at 200 kbps or above. Click each box to see the minimum top residential speed in your area. Zoom out to see the speed of service in the neighboring areas.

For more information, visit <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report>.

MEMORANDUM OF UNDERSTANDING
INFORMATION IN SUPPORT OF FIREFLY FIBER BROADBAND
RESPONSE TO VATI RFP

Documentation of relationship between applicant and co-applicant (formal or informal).

Firefly Fiber Broadband, a division of Central Virginia Services, Inc. (CVSI), and the Albemarle Broadband Authority are working on a formal agreement to make review of work and processing of payments as efficient as possible. Firefly Fiber Broadband is considering submitting one invoice upon project completion. The partners have agreed in principle on the following responsibilities:

The Albemarle Broadband Authority (ABBA) intends to partner with Firefly Fiber Broadband as a co-applicant for Virginia Telecommunication Initiative funding (VATI) to extend broadband service to unserved areas of Albemarle County.

ABBA would complete the grant application (with Firefly Fiber Broadband assistance); submit the completed application(s) to the Virginia Department of Housing and Community Development (DHCD); and manage the processing of work payments. Because ABBA will be the funded applicant in the event of award, it would timely process through its fiscal agent, Albemarle County, all VATI related Firefly Fiber Broadband invoices that applied directly to the approved work plans, design, and statement of work. Any delays in completing the work as planned would be negotiated with DHCD as partners.

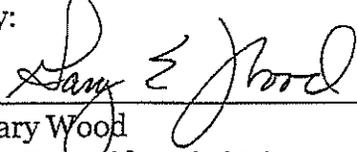
ABBA also would provide services and support for any necessary citizen engagement activities, including but not limited to: processing applications for right of way in a manner consistent with all local, state, and federal laws; advocating and describing the benefits of the project to those affected; and working with Firefly Fiber Broadband and other partner agencies (e.g. VDOT) and private industry (e.g. Central Virginia Electric Cooperative, Dominion Power) to help coordinate construction and/or pole attachments.

Firefly Fiber Broadband would provide accurate VATI construction plans; associated material and work invoices to match the construction plans; detailed descriptions of necessary right of way or pole attachments; and timely notice of other needs to ABBA.

This general agreement proceeds from the notice of VATI award to the completion of the projects.

FIREFLY FIBER BROADBAND,
a Division of CVSI

By:

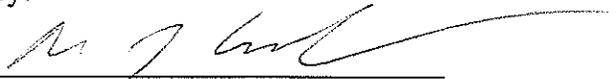


Gary Wood
CVSI President & CEO

13 December 2018
Date

ALBEMARLE BROADBAND
AUTHORITY

By:



Michael Culp
Vice Chair

13 December 2018
Date

Dec. 13, 2018

CVEC/CVSI Form 477 Documentation for Albemarle VATI 2019

CVEC is submitting recent financial information and form 7 reporting to indicate compliance with the DHCD VATI request for the Two most recent Form 477 submitted to FCC

The following attachments are to be considered as adherence to the requirement.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 15 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION
VA0029

PERIOD ENDED December, 2016

BORROWER NAME
Central Virginia Electric Cooperative

INSTRUCTIONS - See help in the online application.

This information is analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. You are required by contract and applicable regulations to provide the information. The information provided is subject to the Freedom of Information Act (5 U.S.C. 552)

CERTIFICATION

We recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Section 1001.

We hereby certify that the entries in this report are in accordance with the accounts and other records of the system and reflect the status of the system to the best of our knowledge and belief.

ALL INSURANCE REQUIRED BY PART 1788 OF 7 CFR CHAPTER XVII, RUS, WAS IN FORCE DURING THE REPORTING PERIOD AND RENEWALS HAVE BEEN OBTAINED FOR ALL POLICIES DURING THE PERIOD COVERED BY THIS REPORT PURSUANT TO PART 1718 OF 7 CFR CHAPTER XVII

(check one of the following)

All of the obligations under the RUS loan documents have been fulfilled in all material respects.

There has been a default in the fulfillment of the obligations under the RUS loan documents. Said default(s) is/are specifically described in Part D of this report.

Gary Wood

4/3/2017

DATE

PART A. STATEMENT OF OPERATIONS

ITEM	YEAR-TO-DATE			THIS MONTH (d)
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
1. Operating Revenue and Patronage Capital	84,826,746	84,594,302	84,739,135	8,767,686
2. Power Production Expense	24,051	16,503	31,445	278
3. Cost of Purchased Power	55,403,052	51,509,611	51,447,686	4,698,903
4. Transmission Expense	157,544	118,983	95,370	10,387
5. Regional Market Expense				
6. Distribution Expense - Operation	3,719,098	3,680,607	4,029,858	389,450
7. Distribution Expense - Maintenance	5,395,770	5,891,547	5,262,714	461,825
8. Customer Accounts Expense	1,859,104	2,104,565	2,054,436	184,424
9. Customer Service and Informational Expense	237,012	158,357	224,178	15,154
10. Sales Expense				
11. Administrative and General Expense	5,891,843	5,964,843	6,492,079	743,273
12. Total Operation & Maintenance Expense (2 thru 11)	72,687,474	69,445,016	69,637,766	6,503,694
13. Depreciation and Amortization Expense	6,234,168	6,486,413	6,901,556	536,976
14. Tax Expense - Property & Gross Receipts				
15. Tax Expense - Other				
16. Interest on Long-Term Debt	4,898,816	4,471,215	4,379,327	365,520
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	27,319	122,925	27,312	43,242
19. Other Deductions	(32,866)	2,163,283		2,163,283
20. Total Cost of Electric Service (12 thru 19)	83,814,911	82,688,852	80,945,961	9,612,715
21. Patronage Capital & Operating Margins (1 minus 20)	1,011,835	1,905,450	3,793,174	(845,029)
22. Non Operating Margins - Interest	136,562	33,749	32,400	2,662
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	3,542	(114,656)	211,800	(62,444)
26. Generation and Transmission Capital Credits				
27. Other Capital Credits and Patronage Dividends	119,939	187,014		(5,568)
28. Extraordinary Items				
29. Patronage Capital or Margins (21 thru 28)	1,271,878	2,011,557	4,037,374	(910,379)

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION

BORROWER DESIGNATION

VA0029

PERIOD ENDED

December, 2016

INSTRUCTIONS - See help in the online application.

PART B. DATA ON TRANSMISSION AND DISTRIBUTION PLANT

ITEM	YEAR-TO-DATE		ITEM	YEAR-TO-DATE	
	LAST YEAR (a)	THIS YEAR (b)		LAST YEAR (a)	THIS YEAR (b)
1. New Services Connected	351	595	5. Miles Transmission	68.32	68.32
2. Services Retired	69	75	6. Miles Distribution – Overhead	3,312.90	3,309.43
3. Total Services in Place	37,570	38,201	7. Miles Distribution - Underground	1,265.53	1,293.28
4. Idle Services (Exclude Seasonals)	1,880	1,966	8. Total Miles Energized (5 + 6 + 7)	4,646.75	4,671.03

PART C. BALANCE SHEET

ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Total Utility Plant in Service	224,625,385	30. Memberships	0
2. Construction Work in Progress	6,658,040	31. Patronage Capital	48,328,213
3. Total Utility Plant (1 + 2)	231,283,425	32. Operating Margins - Prior Years	0
4. Accum. Provision for Depreciation and Amort.	68,459,783	33. Operating Margins - Current Year	1,905,450
5. Net Utility Plant (3 - 4)	162,823,642	34. Non-Operating Margins	106,107
6. Non-Utility Property (Net)	0	35. Other Margins and Equities	4,359,311
7. Investments in Subsidiary Companies	0	36. Total Margins & Equities (30 thru 35)	54,699,081
8. Invest. in Assoc. Org. - Patronage Capital	943,701	37. Long-Term Debt - RUS (Net)	0
9. Invest. in Assoc. Org. - Other - General Funds	0	38. Long-Term Debt - FFB - RUS Guaranteed	63,521,671
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	1,275,352	39. Long-Term Debt - Other - RUS Guaranteed	0
11. Investments in Economic Development Projects	0	40. Long-Term Debt Other (Net)	40,913,764
12. Other Investments	956,135	41. Long-Term Debt - RUS - Econ. Devel. (Net)	0
13. Special Funds	0	42. Payments – Unapplied	0
14. Total Other Property & Investments (6 thru 13)	3,175,188	43. Total Long-Term Debt (37 thru 41 - 42)	104,435,435
15. Cash - General Funds	1,682,902	44. Obligations Under Capital Leases - Noncurrent	0
16. Cash - Construction Funds - Trustee	1	45. Accumulated Operating Provisions and Asset Retirement Obligations	2,086,902
17. Special Deposits	0	46. Total Other Noncurrent Liabilities (44 + 45)	2,086,902
18. Temporary Investments	0	47. Notes Payable	9,000,000
19. Notes Receivable (Net)	0	48. Accounts Payable	5,318,438
20. Accounts Receivable - Sales of Energy (Net)	10,586,242	49. Consumers Deposits	1,578,484
21. Accounts Receivable - Other (Net)	503,386	50. Current Maturities Long-Term Debt	4,490,958
22. Renewable Energy Credits	0	51. Current Maturities Long-Term Debt - Economic Development	0
23. Materials and Supplies - Electric & Other	2,320,705	52. Current Maturities Capital Leases	0
24. Prepayments	208,855	53. Other Current and Accrued Liabilities	1,328,861
25. Other Current and Accrued Assets	8,037	54. Total Current & Accrued Liabilities (47 thru 53)	21,716,741
26. Total Current and Accrued Assets (15 thru 25)	15,310,128	55. Regulatory Liabilities	0
27. Regulatory Assets	0	56. Other Deferred Credits	2,067,824
28. Other Deferred Debits	3,697,025	57. Total Liabilities and Other Credits (36 + 43 + 46 + 54 thru 56)	185,005,983
29. Total Assets and Other Debits (5+14+26 thru 28)	185,005,983		

<p style="text-align: center;">UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION</p>	<p>BORROWER DESIGNATION VA0029</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED December, 2016</p>
<p>PART D. NOTES TO FINANCIAL STATEMENTS</p>	

<p>UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE</p> <p>FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION</p>	<p>BORROWER DESIGNATION</p> <p>VA0029</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED</p> <p>December, 2016</p>
<p>PART D. CERTIFICATION LOAN DEFAULT NOTES</p>	
<p> </p>	

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0029

PERIOD ENDED December, 2016

INSTRUCTIONS - See help in the online application.

PART E. CHANGES IN UTILITY PLANT

PLANT ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFERS (d)	BALANCE END OF YEAR (e)
1. Distribution Plant	180,910,472	11,215,634	6,127,203		185,998,903
2. General Plant	15,949,111	6,073,247	7,597,857		14,424,501
3. Headquarters Plant	7,820,430		1,663		7,818,767
4. Intangibles	2,126,286	0	0	0	2,126,286
5. Transmission Plant	14,256,929	0	0	0	14,256,929
6. Regional Transmission and Market Operation Plant					
7. All Other Utility Plant	0				0
8. Total Utility Plant in Service (1 thru 7)	221,063,228	17,288,881	13,726,723	0	224,625,386
9. Construction Work in Progress	7,406,922	(748,883)			6,658,039
10. Total Utility Plant (8 + 9)	228,470,150	16,539,998	13,726,723	0	231,283,425

PART F. MATERIALS AND SUPPLIES

ITEM	BALANCE BEGINNING OF YEAR (a)	PURCHASED (b)	SALVAGED (c)	USED (NET) (d)	SOLD (e)	ADJUSTMENT (f)	BALANCE END OF YEAR (g)
1. Electric	2,175,212	2,456,645	180,661	2,480,720	11,093		2,320,705
2. Other	0						0

PART G. SERVICE INTERRUPTIONS

ITEM	AVERAGE MINUTES PER CONSUMER BY CAUSE				TOTAL (e)
	POWER SUPPLIER (a)	MAJOR EVENT (b)	PLANNED (c)	ALL OTHER (d)	
1. Present Year	110.000	62.000	8.000	205.000	385.000
2. Five-Year Average	89.000	1,130.000	12.000	214.000	1,445.000

PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS

1. Number of Full Time Employees	102	4. Payroll - Expensed	5,397,056
2. Employee - Hours Worked - Regular Time	212,163	5. Payroll - Capitalized	2,733,091
3. Employee - Hours Worked - Overtime	11,593	6. Payroll - Other	55,297

PART I. PATRONAGE CAPITAL

ITEM	DESCRIPTION	THIS YEAR (a)	CUMULATIVE (b)
1. Capital Credits - Distributions	a. General Retirements	1,070,446	15,265,884
	b. Special Retirements	527,042	5,971,730
	c. Total Retirements (a + b)	1,597,488	21,237,614
2. Capital Credits - Received	a. Cash Received From Retirement of Patronage Capital by Suppliers of Electric Power		
	b. Cash Received From Retirement of Patronage Capital by Lenders for Credit Extended to the Electric System	123,637	
	c. Total Cash Received (a + b)	123,637	

PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE

1. Amount Due Over 60 Days	\$ 215,549	2. Amount Written Off During Year	\$ 259,243
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ENERGY EFFICIENCY AND CONSERVATION LOAN PROGRAM

1. Anticipated Loan Delinquency %		4. Anticipated Loan Default %	
2. Actual Loan Delinquency %		5. Actual Loan Default %	
3. Total Loan Delinquency Dollars YTD	\$	6. Total Loan Default Dollars YTD	\$

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
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INSTRUCTIONS - See help in the online application	PERIOD ENDED December, 2016
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PART K. kWh PURCHASED AND TOTAL COST

No	ITEM	SUPPLIER CODE	RENEWABLE ENERGY PROGRAM NAME	RENEWABLE FUEL TYPE	kWh PURCHASED	TOTAL COST	AVERAGE COST (Cents/kWh)	INCLUDED IN TOTAL COST - FUEL COST ADJUSTMENT	INCLUDED IN TOTAL COST - WHEELING AND OTHER CHARGES
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Southeastern Power Admin	29304	Hydro Electric	Hydro	27,672,779	1,785,803	6.45		
2	PJM Interconnection (PA)	800468				16,762,398	0.00		
3	*Miscellaneous	700000				1,205,594	0.00		
4	*Miscellaneous	700000			720,369,986	31,755,816	4.41		
	Total				748,042,765	51,509,611	6.89		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
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INSTRUCTIONS - See help in the online application	PERIOD ENDED December, 2016
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PART K. kWh PURCHASED AND TOTAL COST

No	Comments
1	
2	
3	
4	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		BORROWER DESIGNATION VA0029	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2016	
PART L. LONG-TERM LEASES			
No	NAME OF LESSOR (a)	TYPE OF PROPERTY (b)	RENTAL THIS YEAR (c)
	TOTAL		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		BORROWER DESIGNATION VA0029	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2016	
PART M. ANNUAL MEETING AND BOARD DATA			
1. Date of Last Annual Meeting 6/22/2016	2. Total Number of Members 30,901	3. Number of Members Present at Meeting 90	4. Was Quorum Present? Y
5. Number of Members Voting by Proxy or Mail 1,220	6. Total Number of Board Members 9	7. Total Amount of Fees and Expenses for Board Members \$ 237,292	8. Does Manager Have Written Contract? N

RUS Financial and Operating Report Electric Distribution

Revision Date 2014

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2016

PART N. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS

No	ITEM	BALANCE END OF YEAR (a)	INTEREST (Billed This Year) (b)	PRINCIPAL (Billed This Year) (c)	TOTAL (Billed This Year) (d)
1	Rural Utilities Service (Excludes RUS - Economic Development Loans)				
2	National Rural Utilities Cooperative Finance Corporation	37,468,327	1,710,982	2,540,386	4,251,368
3	CoBank, ACB	3,445,437	151,236	116,648	267,884
4	Federal Financing Bank	63,521,671	2,608,997	1,904,108	4,513,105
5	RUS - Economic Development Loans				
6	Payments Unapplied				
7	Principal Payments Received from Ultimate Recipients of IRP Loans				
8	Principal Payments Received from Ultimate Recipients of REDL Loans				
9	Principal Payments Received from Ultimate Recipients of EE Loans				
	TOTAL	104,435,435	4,471,215	4,561,142	9,032,357

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2016

PART O. POWER REQUIREMENTS DATABASE - ANNUAL SUMMARY

CLASSIFICATION	CONSUMER SALES & REVENUE DATA	DECEMBER (a)	AVERAGE NO. CONSUMERS SERVED (b)	TOTAL YEAR TO DATE (c)
1. Residential Sales (excluding seasonal)	a. No. Consumers Served	32,611	32,423	
	b. kWh Sold			487,370,132
	c. Revenue			62,606,907
2. Residential Sales - Seasonal	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
3. Irrigation Sales	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
4. Comm. and Ind. 1000 KVA or Less	a. No. Consumers Served	3,854	3,803	
	b. kWh Sold			124,697,306
	c. Revenue			13,473,710
5. Comm. and Ind. Over 1000 KVA	a. No. Consumers Served	14	13	
	b. kWh Sold			126,413,710
	c. Revenue			7,076,648
6. Public Street & Highway Lighting	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
7. Other Sales to Public Authorities	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
8. Sales for Resale - RUS Borrowers	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
9. Sales for Resale - Other	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
10. Total No. of Consumers (lines 1a thru 9a)		36,479	36,239	
11. Total kWh Sold (lines 1b thru 9b)				738,481,148
12. Total Revenue Received From Sales of Electric Energy (lines 1c thru 9c)				83,157,265
13. Transmission Revenue				
14. Other Electric Revenue				1,437,036
15. kWh - Own Use				1,262,249
16. Total kWh Purchased				748,042,765
17. Total kWh Generated				192,904
18. Cost of Purchases and Generation				51,645,097
19. Interchange - kWh - Net				
20. Peak - Sum All kW Input (Metered) Non-coincident <input checked="" type="checkbox"/> Coincident <input type="checkbox"/>				222,885

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0029

PERIOD ENDED December, 2016

INSTRUCTIONS - See help in the online application.

PART P. ENERGY EFFICIENCY PROGRAMS

CLASSIFICATION	ADDED THIS YEAR			TOTAL TO DATE		
	No. of Consumers (a)	Amount Invested (b)	Estimated MMBTU Savings (c)	No. of Consumers (d)	Amount Invested (e)	Estimated MMBTU Savings (f)
1. Residential Sales (excluding seasonal)						
2. Residential Sales - Seasonal						
3. Irrigation Sales						
4. Comm. and Ind. 1000 KVA or Less						
5. Comm. and Ind. Over 1000 KVA						
6. Public Street and Highway Lighting						
7. Other Sales to Public Authorities						
8. Sales for Resale – RUS Borrowers						
9. Sales for Resale – Other						
10. Total						

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029 PERIOD ENDED December, 2016
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INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

PART Q. SECTION I. INVESTMENTS (See Instructions for definitions of Income or Loss)

No	DESCRIPTION (a)	INCLUDED (\$) (b)	EXCLUDED (\$) (c)	INCOME OR LOSS (\$) (d)	RURAL DEVELOPMENT (e)
2	Investments in Associated Organizations				
	CFC PATRONAGE		775,619		
	CFC CAPITAL TERM CERTIFICATE		1,130,340		
	CFC MEMBER CAPITAL CERTIFICATE		25,000		
	COBANK		168,082		
	OTHER PATRONAGE		24,315		
	FEDERATED		95,697		
	Totals		2,219,053		
4	Other Investments				
	UNITED UTILITY		5,231		
	ERMCO		169,434		
	NRTC		17,512		
	INSURANCE POLICY		763,958		
	Totals		956,135		
6	Cash - General				
	BBT	1,492,706			
	COLLECTING BANKS		188,096		
	WORKING FUNDS		2,100		
	Totals	1,492,706	190,196		
9	Accounts and Notes Receivable - NET				
	MISC ACCOUNTS RECEIVABLE		503,386		
	Totals		503,386		
11	TOTAL INVESTMENTS (1 thru 10)	1,492,706	3,868,770		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029 PERIOD ENDED December, 2016
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INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

PART Q. SECTION II. LOAN GUARANTEES

No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
	TOTAL				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029
	PERIOD ENDED December, 2016

INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

SECTION III. RATIO

RATIO OF INVESTMENTS AND LOAN GUARANTEES TO UTILITY PLANT [Total of Included Investments (Section I, 11b) and Loan Guarantees - Loan Balance (Section II, 5d) to Total Utility Plant (Line 3, Part C) of this report]	0.64 %
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SECTION IV. LOANS

No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
	TOTAL				

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 15 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION
VA0029

PERIOD ENDED December, 2017

BORROWER NAME
Central Virginia Electric Cooperative

INSTRUCTIONS - See help in the online application.

This information is analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. You are required by contract and applicable regulations to provide the information. The information provided is subject to the Freedom of Information Act (5 U.S.C. 552)

CERTIFICATION

We recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Section 1001.

We hereby certify that the entries in this report are in accordance with the accounts and other records of the system and reflect the status of the system to the best of our knowledge and belief.

ALL INSURANCE REQUIRED BY PART 1788 OF 7 CFR CHAPTER XVII, RUS, WAS IN FORCE DURING THE REPORTING PERIOD AND RENEWALS HAVE BEEN OBTAINED FOR ALL POLICIES DURING THE PERIOD COVERED BY THIS REPORT PURSUANT TO PART 1718 OF 7 CFR CHAPTER XVII

(check one of the following)

All of the obligations under the RUS loan documents have been fulfilled in all material respects.

There has been a default in the fulfillment of the obligations under the RUS loan documents. Said default(s) is/are specifically described in Part D of this report.

Gary Wood

3/23/2018

DATE

PART A. STATEMENT OF OPERATIONS

ITEM	YEAR-TO-DATE			THIS MONTH (d)
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
1. Operating Revenue and Patronage Capital	84,594,302	79,903,997	83,716,592	9,068,375
2. Power Production Expense	16,503	6,125	33,987	299
3. Cost of Purchased Power	51,509,611	47,957,406	49,480,043	4,731,632
4. Transmission Expense	118,983	132,514	121,698	9,314
5. Regional Market Expense				
6. Distribution Expense - Operation	3,680,607	3,815,358	4,105,998	694,615
7. Distribution Expense - Maintenance	5,891,547	5,375,212	5,572,315	460,957
8. Customer Accounts Expense	2,104,565	1,935,920	2,200,026	59,862
9. Customer Service and Informational Expense	158,357	117,041	148,709	7,060
10. Sales Expense				
11. Administrative and General Expense	5,964,843	6,324,249	6,667,922	441,584
12. Total Operation & Maintenance Expense (2 thru 11)	69,445,016	65,663,825	68,330,698	6,405,323
13. Depreciation and Amortization Expense	6,486,413	6,753,402	6,625,532	580,761
14. Tax Expense - Property & Gross Receipts				
15. Tax Expense - Other				
16. Interest on Long-Term Debt	4,471,215	4,725,711	4,865,095	405,673
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	122,925	79,942	29,496	20,354
19. Other Deductions	2,163,283	(30,391)	0	(30,391)
20. Total Cost of Electric Service (12 thru 19)	82,688,852	77,192,489	79,850,821	7,381,720
21. Patronage Capital & Operating Margins (1 minus 20)	1,905,450	2,711,508	3,865,771	1,686,655
22. Non Operating Margins - Interest	33,749	76,832	204,366	7,767
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	(114,656)	42,988	1,800	(67,761)
26. Generation and Transmission Capital Credits				
27. Other Capital Credits and Patronage Dividends	187,014	316,902	210,000	17,500
28. Extraordinary Items				
29. Patronage Capital or Margins (21 thru 28)	2,011,557	3,148,230	4,281,937	1,644,161

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION

VA0029

PERIOD ENDED

December, 2017

INSTRUCTIONS - See help in the online application.

PART B. DATA ON TRANSMISSION AND DISTRIBUTION PLANT

ITEM	YEAR-TO-DATE		ITEM	YEAR-TO-DATE	
	LAST YEAR (a)	THIS YEAR (b)		LAST YEAR (a)	THIS YEAR (b)
1. New Services Connected	595	522	5. Miles Transmission	68.32	68.32
2. Services Retired	75	36	6. Miles Distribution – Overhead	3,309.43	3,306.74
3. Total Services in Place	38,201	38,448	7. Miles Distribution - Underground	1,293.28	1,306.86
4. Idle Services (Exclude Seasonals)	1,966	1,814	8. Total Miles Energized (5 + 6 + 7)	4,671.03	4,681.92

PART C. BALANCE SHEET

ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Total Utility Plant in Service	242,030,103	30. Memberships	0
2. Construction Work in Progress	4,281,786	31. Patronage Capital	48,515,030
3. Total Utility Plant (1 + 2)	246,311,889	32. Operating Margins - Prior Years	0
4. Accum. Provision for Depreciation and Amort.	71,798,926	33. Operating Margins - Current Year	3,028,410
5. Net Utility Plant (3 - 4)	174,512,963	34. Non-Operating Margins	119,820
6. Non-Utility Property (Net)	0	35. Other Margins and Equities	4,907,633
7. Investments in Subsidiary Companies	0	36. Total Margins & Equities (30 thru 35)	56,570,893
8. Invest. in Assoc. Org. - Patronage Capital	1,025,934	37. Long-Term Debt - RUS (Net)	0
9. Invest. in Assoc. Org. - Other - General Funds	0	38. Long-Term Debt - FFB - RUS Guaranteed	81,118,421
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	1,303,125	39. Long-Term Debt - Other - RUS Guaranteed	0
11. Investments in Economic Development Projects	0	40. Long-Term Debt Other (Net)	38,116,267
12. Other Investments	1,030,129	41. Long-Term Debt - RUS - Econ. Devel. (Net)	0
13. Special Funds	0	42. Payments – Unapplied	1,186,527
14. Total Other Property & Investments (6 thru 13)	3,359,188	43. Total Long-Term Debt (37 thru 41 - 42)	118,048,161
15. Cash - General Funds	818,162	44. Obligations Under Capital Leases - Noncurrent	0
16. Cash - Construction Funds - Trustee	41,335	45. Accumulated Operating Provisions and Asset Retirement Obligations	2,018,565
17. Special Deposits	0	46. Total Other Noncurrent Liabilities (44 + 45)	2,018,565
18. Temporary Investments	0	47. Notes Payable	3,000,000
19. Notes Receivable (Net)	0	48. Accounts Payable	5,695,605
20. Accounts Receivable - Sales of Energy (Net)	11,032,415	49. Consumers Deposits	1,977,978
21. Accounts Receivable - Other (Net)	505,012	50. Current Maturities Long-Term Debt	4,612,857
22. Renewable Energy Credits	0	51. Current Maturities Long-Term Debt - Economic Development	0
23. Materials and Supplies - Electric & Other	2,199,489	52. Current Maturities Capital Leases	0
24. Prepayments	170,405	53. Other Current and Accrued Liabilities	2,143,498
25. Other Current and Accrued Assets	7,726	54. Total Current & Accrued Liabilities (47 thru 53)	17,429,938
26. Total Current and Accrued Assets (15 thru 25)	14,774,544	55. Regulatory Liabilities	0
27. Regulatory Assets	0	56. Other Deferred Credits	2,760,259
28. Other Deferred Debits	4,181,121	57. Total Liabilities and Other Credits (36 + 43 + 46 + 54 thru 56)	196,827,816
29. Total Assets and Other Debits (5+14+26 thru 28)	196,827,816		

<p style="text-align: center;">UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION</p>	<p>BORROWER DESIGNATION VA0029</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED December, 2017</p>
<p>PART D. NOTES TO FINANCIAL STATEMENTS</p>	

<p style="text-align: center;">UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION</p>	<p>BORROWER DESIGNATION VA0029</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED December, 2017</p>
<p>PART D. CERTIFICATION LOAN DEFAULT NOTES</p>	

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0029

PERIOD ENDED December, 2017

INSTRUCTIONS - See help in the online application.

PART E. CHANGES IN UTILITY PLANT

PLANT ITEM	BALANCE BEGINNING OF YEAR (a)	ADDITIONS (b)	RETIREMENTS (c)	ADJUSTMENTS AND TRANSFERS (d)	BALANCE END OF YEAR (e)
1. Distribution Plant	185,998,903	15,654,376	2,366,421		199,286,858
2. General Plant	14,424,501	1,896,204	610,371		15,710,334
3. Headquarters Plant	7,818,767	2,833,081			10,651,848
4. Intangibles	2,126,286				2,126,286
5. Transmission Plant	14,256,929		2,152		14,254,777
6. Regional Transmission and Market Operation Plant					
7. All Other Utility Plant	0				0
8. Total Utility Plant in Service (1 thru 7)	224,625,386	20,383,661	2,978,944		242,030,103
9. Construction Work in Progress	6,658,039	(2,376,253)			4,281,786
10. Total Utility Plant (8 + 9)	231,283,425	18,007,408	2,978,944		246,311,889

PART F. MATERIALS AND SUPPLIES

ITEM	BALANCE BEGINNING OF YEAR (a)	PURCHASED (b)	SALVAGED (c)	USED (NET) (d)	SOLD (e)	ADJUSTMENT (f)	BALANCE END OF YEAR (g)
1. Electric	2,320,705	3,791,559	114,873	4,020,958	7,036	346	2,199,489
2. Other	0						0

PART G. SERVICE INTERRUPTIONS

ITEM	AVERAGE MINUTES PER CONSUMER BY CAUSE				TOTAL (e)
	POWER SUPPLIER (a)	MAJOR EVENT (b)	PLANNED (c)	ALL OTHER (d)	
1. Present Year	87.000	0.000	9.600	143.000	239.600
2. Five-Year Average	100.600	648.400	11.180	199.200	959.380

PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS

1. Number of Full Time Employees	104	4. Payroll - Expensed	5,571,451
2. Employee - Hours Worked - Regular Time	215,319	5. Payroll - Capitalized	2,714,643
3. Employee - Hours Worked - Overtime	10,931	6. Payroll - Other	130,222

PART I. PATRONAGE CAPITAL

ITEM	DESCRIPTION	THIS YEAR (a)	CUMULATIVE (b)
1. Capital Credits - Distributions	a. General Retirements	1,484,358	16,750,242
	b. Special Retirements	278,158	6,249,888
	c. Total Retirements (a + b)	1,762,516	23,000,130
2. Capital Credits - Received	a. Cash Received From Retirement of Patronage Capital by Suppliers of Electric Power		
	b. Cash Received From Retirement of Patronage Capital by Lenders for Credit Extended to the Electric System	156,069	
	c. Total Cash Received (a + b)	156,069	

PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE

1. Amount Due Over 60 Days	\$ 145,011	2. Amount Written Off During Year	\$ 174,839
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ENERGY EFFICIENCY AND CONSERVATION LOAN PROGRAM

1. Anticipated Loan Delinquency %		4. Anticipated Loan Default %	
2. Actual Loan Delinquency %		5. Actual Loan Default %	
3. Total Loan Delinquency Dollars YTD	\$	6. Total Loan Default Dollars YTD	\$

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
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INSTRUCTIONS - See help in the online application	PERIOD ENDED December, 2017
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PART K. kWh PURCHASED AND TOTAL COST

No	ITEM	SUPPLIER CODE	RENEWABLE ENERGY PROGRAM NAME	RENEWABLE FUEL TYPE	kWh PURCHASED	TOTAL COST	AVERAGE COST (Cents/kWh)	INCLUDED IN TOTAL COST - FUEL COST ADJUSTMENT	INCLUDED IN TOTAL COST - WHEELING AND OTHER CHARGES
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Southeastern Power Admin	29304	Hydro Electric	Hydro	16,084,905	1,167,300	7.26		
2	PJM Interconnection (PA)	800468				14,122,442	0.00		
3	*Miscellaneous	700000			751,289,463	32,667,664	4.35		
	Total				767,374,368	47,957,406	6.25		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		BORROWER DESIGNATION VA0029
INSTRUCTIONS - See help in the online application		PERIOD ENDED December, 2017
PART K. kWh PURCHASED AND TOTAL COST		
No	Comments	
1		
2		
3		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		BORROWER DESIGNATION VA0029	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2017	
PART L. LONG-TERM LEASES			
No	NAME OF LESSOR (a)	TYPE OF PROPERTY (b)	RENTAL THIS YEAR (c)
	TOTAL		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		BORROWER DESIGNATION VA0029	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2017	
PART M. ANNUAL MEETING AND BOARD DATA			
1. Date of Last Annual Meeting 6/14/2017	2. Total Number of Members 36,011	3. Number of Members Present at Meeting 77	4. Was Quorum Present? Y
5. Number of Members Voting by Proxy or Mail 1,566	6. Total Number of Board Members 8	7. Total Amount of Fees and Expenses for Board Members \$ 226,415	8. Does Manager Have Written Contract? N

RUS Financial and Operating Report Electric Distribution

Revision Date 2014

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2017

PART N. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS

No	ITEM	BALANCE END OF YEAR (a)	INTEREST (Billed This Year) (b)	PRINCIPAL (Billed This Year) (c)	TOTAL (Billed This Year) (d)
1	Rural Utilities Service (Excludes RUS - Economic Development Loans)				
2	National Rural Utilities Cooperative Finance Corporation	34,887,865	1,605,303	2,634,933	4,240,236
3	CoBank, ACB	3,228,402	188,787	204,846	393,633
4	Federal Financing Bank	81,118,421	2,931,621	1,239,071	4,170,692
5	RUS - Economic Development Loans				
6	Payments Unapplied	1,186,527			
7	Principal Payments Received from Ultimate Recipients of IRP Loans				
8	Principal Payments Received from Ultimate Recipients of REDL Loans				
9	Principal Payments Received from Ultimate Recipients of EE Loans				
	TOTAL	118,048,161	4,725,711	4,078,850	8,804,561

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION	BORROWER DESIGNATION VA0029
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2017

PART O. POWER REQUIREMENTS DATABASE - ANNUAL SUMMARY

CLASSIFICATION	CONSUMER SALES & REVENUE DATA	DECEMBER (a)	AVERAGE NO. CONSUMERS SERVED (b)	TOTAL YEAR TO DATE (c)
1. Residential Sales (excluding seasonal)	a. No. Consumers Served	32,855	32,780	
	b. kWh Sold			469,673,560
	c. Revenue			58,585,576
2. Residential Sales - Seasonal	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
3. Irrigation Sales	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
4. Comm. and Ind. 1000 KVA or Less	a. No. Consumers Served	3,961	3,908	
	b. kWh Sold			124,418,050
	c. Revenue			12,908,382
5. Comm. and Ind. Over 1000 KVA	a. No. Consumers Served	17	14	
	b. kWh Sold			130,450,848
	c. Revenue			7,121,430
6. Public Street & Highway Lighting	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
7. Other Sales to Public Authorities	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
8. Sales for Resale - RUS Borrowers	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
9. Sales for Resale - Other	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
10. Total No. of Consumers (lines 1a thru 9a)		36,833	36,702	
11. Total kWh Sold (lines 1b thru 9b)				724,542,458
12. Total Revenue Received From Sales of Electric Energy (lines 1c thru 9c)				78,615,388
13. Transmission Revenue				
14. Other Electric Revenue				1,288,609
15. kWh - Own Use				1,337,324
16. Total kWh Purchased				767,374,368
17. Total kWh Generated				0
18. Cost of Purchases and Generation				48,096,045
19. Interchange - kWh - Net				
20. Peak - Sum All kW Input (Metered) Non-coincident <input checked="" type="checkbox"/> Coincident <input type="checkbox"/>				253,373

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0029

PERIOD ENDED December, 2017

INSTRUCTIONS - See help in the online application.

PART P. ENERGY EFFICIENCY PROGRAMS

CLASSIFICATION	ADDED THIS YEAR			TOTAL TO DATE		
	No. of Consumers <i>(a)</i>	Amount Invested <i>(b)</i>	Estimated MMBTU Savings <i>(c)</i>	No. of Consumers <i>(d)</i>	Amount Invested <i>(e)</i>	Estimated MMBTU Savings <i>(f)</i>
1. Residential Sales (excluding seasonal)						
2. Residential Sales - Seasonal						
3. Irrigation Sales						
4. Comm. and Ind. 1000 KVA or Less						
5. Comm. and Ind. Over 1000 KVA						
6. Public Street and Highway Lighting						
7. Other Sales to Public Authorities						
8. Sales for Resale – RUS Borrowers						
9. Sales for Resale – Other						
10. Total						

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029 PERIOD ENDED December, 2017
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INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

PART Q. SECTION I. INVESTMENTS (See Instructions for definitions of Income or Loss)

No	DESCRIPTION (a)	INCLUDED (\$) (b)	EXCLUDED (\$) (c)	INCOME OR LOSS (\$) (d)	RURAL DEVELOPMENT (e)
1	Non-Utility Property (NET)				
	Totals				
2	Investments in Associated Organizations				
	CFC PATRONAGE		858,601		
	CFC CAPITAL TERM CERTIFICATE		1,126,146		
	CFC MEMBER CAPITAL CERTIFICATE		25,000		
	COBANK		167,333		
	FEDERATED		123,237		
	OTHER PATRONAGE		28,742		
	Totals		2,329,059		
4	Other Investments				
	UNITED UTILITY		5,231		
	ERMCO		203,846		
	NRTC		26,702		
	INSURANCE POLICY		794,349		
	Totals		1,030,128		
6	Cash - General				
	BBT	683,011			
	COLLECTING BANKS		133,051		
	WORKING FUNDS		2,100		
	Totals	683,011	135,151		
9	Accounts and Notes Receivable - NET				
	MISC ACCOUNTS RECEIVABLE		505,012		
	Totals		505,012		
11	TOTAL INVESTMENTS (1 thru 10)	683,011	3,999,350		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029
	PERIOD ENDED December, 2017

INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

PART Q. SECTION II. LOAN GUARANTEES

No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
	TOTAL				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	BORROWER DESIGNATION VA0029
	PERIOD ENDED December, 2017

INSTRUCTIONS - Reporting of investments is required by 7 CFR 1717, Subpart N. Investment categories reported on this Part correspond to Balance Sheet items in Part C. Identify all investments in Rural Development with an 'X' in column (e). Both 'Included' and 'Excluded' Investments must be reported. See help in the online application.

SECTION III. RATIO

RATIO OF INVESTMENTS AND LOAN GUARANTEES TO UTILITY PLANT [Total of Included Investments (Section I, 11b) and Loan Guarantees - Loan Balance (Section II, 5d) to Total Utility Plant (Line 3, Part C) of this report]	0.28 %
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SECTION IV. LOANS

No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
1	Employees, Officers, Directors				
2	Energy Resources Conservation Loans				
	TOTAL				



Rural Development

Rural Utilities Service

1400 Independence
Ave SW, Room 5135
Stop 1510
Washington, DC
20250

Voice 202.720.9540

Mr. H. T. Brown, Jr.
Chair
Central Virginia Electric Cooperative
P.O. Box 247
Lovingsston, Virginia 22949-0247

SEP 06 2018

Dear Mr. Brown:

We are pleased to advise you that a loan guarantee commitment in the amount of \$66,545,000 has been approved for Central Virginia Electric Cooperative (Central Virginia Electric Coop) by the Rural Utilities Service (RUS). Under this commitment, RUS will guarantee a loan of \$66,545,000 to Central Virginia Electric Coop from the Federal Financing Bank (FFB) under the terms and conditions set forth in the Note Purchase Commitment and Servicing Agreement dated as of January 1, 1992, as amended, between RUS and FFB. The proceeds of the guaranteed loan, designated "BD8", are to be used by Central Virginia Electric Coop to finance only the system extensions and additions described in the RUS Form 740c, Cost Estimates and Loan Budget for Electric Borrowers, dated May 23, 2018, enclosed and made a part hereof. Written approval by RUS must be obtained prior to the advancement of any loan proceeds for use for system extensions and additions that are not specifically listed on the enclosed RUS Form 740c.

The "BD8" Loan Contract and related documents, together with instructions, will be forwarded in the future for execution. The "BD8" loan is approved with the understanding that the loan documents will be authorized and executed by your organization and returned to us by the date set forth in the letter transmitting the documents.

Please note that this letter does not constitute an approval to advance the loan proceeds. Proceeds are eligible for advancement on the "BD8" loan after all conditions below have been met and the proper advance request documentation has been submitted to RUS:

1. RUS has entered into a contract of guarantee with Central Virginia Electric Coop and the FFB has agreed, with RUS approval, to make Central Virginia Electric Coop a guaranteed loan of \$66,545,000 to finance the system extensions and additions described on the enclosed RUS Form 740c;
2. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that the conditions in the contract of guarantee have been satisfied to the extent and in the manner prescribed by the Administrator;
3. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that Central Virginia Electric Coop has duly authorized, executed, and has delivered to the Administrator the RUS Loan Contract, the FFB Note and the Reimbursement Note in the manner prescribed by the Administrator; and

- 4. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that Central Virginia Electric Coop has duly authorized, executed, delivered, recorded, and filed a mortgage or other security instrument, if required, which is in form and substance satisfactory to the Administrator.

Please note that the approval of this loan guarantee commitment is an offer to Central Virginia Electric Cooperative of the "BD8" guaranteed loan. Your acknowledgement and acceptance of the "BD8" guaranteed loan is subject to the specified terms and conditions identified above.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2016, P.L. 114-113, Division E, Title VII, Sections 745 and 746, as amended and/or subsequently enacted for USDA agencies and offices regarding corporate felony convictions and corporate federal tax delinquencies. Please see the attached certification for compliance with these requirements.

Your acknowledgement and acceptance must be received by RUS, by signature, within 14 calendar days from the date of this letter; otherwise the commitment will be VOID. The Chairman or the Board President authorized by your organization to execute the loan documents must execute, date, and return this commitment and the attached Felony Form (AD-3031) via an E-Mail attachment to:

Karen Hargrove
E-Mail Address: LoanCommitment@wdc.usda.gov

If E-Mail is not possible, the signed document can be faxed to 1-844-875-8076. The original executed and dated commitment will remain in your files.

Sincerely,



Christopher A. McLean
Administrator
Rural Utilities Service

ACKNOWLEDGED AND ACCEPTED BY:

Name: _____

Title: _____

Date: _____

Enclosures RUS Form 740c
AD-3031

AD-3031

**U.S. Department of Agriculture
ASSURANCE REGARDING FELONY CONVICTION
OR TAX DELINQUENT STATUS FOR CORPORATE APPLICANTS**

NOTE: *The following statement is made in accordance with the Privacy Act of 1974 (5 USC 552(a)–as amended). The authority for requesting the following information for USDA agencies and offices is in sections 745 and 746 of the Consolidated Appropriations Act, 2016, Pub. L. 114-113, as amended and/or subsequently enacted. The information will be used to document compliance with appropriations restrictions.*

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 0505-0025. The time required to complete this information collection is estimated to average 3 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud, privacy, and other statutes may be applicable to the information provided.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2016, Pub. L. 114-113, Division E, Title VII, sections 745 and 746, as amended and/or subsequently enacted for U.S. Department of Agriculture (USDA) agencies and offices regarding corporate felony convictions and corporate federal tax delinquencies.

Accordingly, by accepting this award the corporation recipient acknowledges: (1) that it does not have a Federal tax delinquency, meaning that it is not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, **and** (2) that it has not been convicted of a felony criminal violation under any Federal law within 24 months preceding the award, unless a suspending and debarring official of the USDA has considered suspension or debarment of the recipient corporation based on these convictions and/or tax delinquencies and determined that suspension or debarment is not necessary to protect the interests of the Government. If the recipient fails to comply with these provisions, the agency will annul this agreement and may recover any funds the recipient has expended in violation of the above cited statutory provisions.

APPLICANT'S SIGNATURE (BY)

TITLE/RELATIONSHIP OF THE INDIVIDUAL IF SIGNING IN A REPRESENTATIVE CAPACITY

BUSINESS NAME

DATE SIGNED (MM-DD-YYYY)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This data will be used by RUS to review your financial situation. Your response is required (7 USC 901 et seq.) and is not confidential.

USDA-RUS COST ESTIMATES AND LOAN BUDGET FOR ELECTRIC BORROWERS To: U.S. Dept. of Agriculture, RUS, Washington, D. C. 20250 INSTRUCTIONS <i>See tabs "Pg1 Instr" through "Pg4 Instr"</i>	Form Approved OMB No. 0572-0032 BORROWER AND LOAN DESIGNATION Virginia 29 BD8 Nelson COST ESTIMATES AS OF: (Month, Year) Apr-18 LOAN PERIOD <u>3</u> YEARS CWP PERIOD <u>2018-2027</u> ← (W/ AMENDMENTS)																																																																																																																																																																																																							
SECTION A. COST ESTIMATES																																																																																																																																																																																																								
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New Line: (Excluding Tie-Lines) <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;"></td> <td style="width:15%; text-align: center;"><u>Construction</u></td> <td style="width:15%; text-align: center;"><u>Consumers</u></td> <td style="width:15%; text-align: center;"><u>Miles</u></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> <tr> <td>101</td> <td>Underground</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.00</td> <td></td> <td style="text-align: center;">\$0</td> </tr> <tr> <td>102</td> <td>Overhead</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.00</td> <td></td> <td style="text-align: center;">0</td> </tr> <tr> <td></td> <td>Total Consumers:</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.00</td> <td>Total Miles</td> <td style="text-align: center;">0.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Less Contributions</td> <td style="text-align: center;">0</td> </tr> <tr> <td></td> <td colspan="4"><i>Subtotal (New Line - code 100).</i></td> <td style="text-align: center;">\$0</td> </tr> </table> 200 b. New Tie-Lines <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;"></td> <td style="width:45%; text-align: center;"><u>Line Designation</u></td> <td style="width:15%; text-align: center;"><u>Miles</u></td> <td style="width:15%;"></td> <td style="width:15%;"></td> </tr> <tr><td>201</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">\$0</td></tr> <tr><td>202</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td>203</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td>204</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td>205</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td>206</td><td>_____</td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td></td><td><i>Subtotal Code 200 from page 1A</i></td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">0</td></tr> <tr><td></td><td><i>Subtotal Code 200 (Includes subtotals from pages 1A)</i></td><td style="text-align: center;">0.00</td><td></td><td style="text-align: center;">\$0</td></tr> </table> 300 c. 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SECTION A. COST ESTIMATES (cont.)

500 e. Substation, Switching Station, Metering Point Changes

Station Designation	Description of Changes
501	
502	
503	
504	
505	
506	
507	
508	
509	
Subtotal From Page 2A	
Subtotal	

BORROWER'S COST ESTIMATES	RUS USE ONLY
\$0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
\$0	

600 f. Miscellaneous Distribution Equipment

601 Transformers and Meters

Construction	Overhead	Underground
Transformers	0 \$0	0 \$0
Meters	0 \$0	
Meters - AMR/AMI	0 \$0	
Subtotal code 601 (included in total of all 600 codes below)		

\$0	
0	
0	
0	
\$0	

602 (2) Sets of Service Wires to increase Capacity	
603 (3) Sectionalizing Equipment	
604 (4) Regulators	
605 (5) Capacitors	
606 (6) Pole Replacements	
607 (7) Conductor Replacements	
608 (8) Miscellaneous Replacements	
609 (9) Miscellaneous Plant Additions	
610 (10) Road Moves	
611 (11) Line Relocations	
612 (12) Step Up/Down Transformers	
613 (13) Min/Max Meters	
614 (14) Storm Damage	
615 (15) Communications	
Subtotal ALL 600 codes	

0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
66,545,200	
\$66,545,200	

700 g. Other Distribution Items

701 (1) Engineering Fees	
702 (2) Security Lights	
703 (3) Reimbursement of General Fund Consumers 0 Miles 0.00	
704 (4) Load Management & SCADA	
705 (5) Automated Meter Reading Equip.	
706 (6) Broadband over Power line (BPL)	
Subtotal	

\$0	
0	
0	
0	
0	
0	
0	
\$0	

TOTAL DISTRIBUTION

\$66,545,200

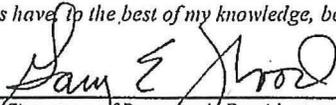
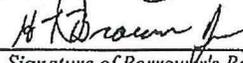
800 2. Transmission

a. New Line

Line Designation	Voltage	Wire Size	Miles
801			
802			
803			
804			
805			
806			
807			
808			
809			
810			
Subtotal Code 800 From Page 2A			0.00
Subtotal Code 800 (includes subtotals from Page 2)			0.00

\$0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
\$0	

SECTION A. COST ESTIMATES (cont.)			BORROWER'S COST ESTIMATES	RUS USE ONLY
900	b. New Substation, Switching Station, etc.			
	<u>Station Designation</u>	<u>kVA</u>	<u>kV TO kV</u>	
901	_____	_____	_____	\$0
902	_____	_____	_____	0
903	_____	_____	_____	0
904	_____	_____	_____	0
905	_____	_____	_____	0
906	_____	_____	_____	0
907	_____	_____	_____	0
908	_____	_____	_____	0
	<i>Subtotal Code 900 From Page 3A</i>			0
	<i>Subtotal Code 900</i>			\$0
1000	c. Line and Station Changes			
	<u>Line/Station Designation</u>	<u>Description of Changes</u>		
1001	_____	_____		\$0
1002	_____	_____		0
1003	_____	_____		0
1004	_____	_____		0
1005	_____	_____		0
1006	_____	_____		0
1007	_____	_____		0
1008	_____	_____		0
1009	_____	_____		0
	<i>Subtotal Code 1000 From page 3B</i>			0
	<i>Subtotal Code 1000</i>			\$0
1100	d. Other Transmission Items			
1101	(1) R/W Procurement	_____		\$0
1102	(2) Engineering Fees	_____		0
1103	(3) Reimbursement of General Funds	Miles	<u>0.00</u>	0
1104	(4) _____	_____		0
	<i>Subtotal</i>			\$0
	TOTAL TRANSMISSION.....			\$0
1200	3. GENERATION (including Step-up Station at Plant)			
1201	a Fuel _____	Nameplate Rating _____	kW	\$0
1202	b. _____	_____		0
	TOTAL GENERATION.....			\$0
1300	4. HEADQUARTERS FACILITIES			
1301	a. New or additional Facilities	(Attach RUS Form 740g) _____		\$0
1302	b. _____	_____		0
	TOTAL HEADQUARTERS FACILITIES			\$0

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	
		Virginia 29 BD8 Nelson	
SECTION A. COST ESTIMATES (cont.)		BORROWER'S COST ESTIMATES	RUS USE ONLY
1400	5. ACQUISITIONS		
1401	a. _____ Consumers _____ Miles	\$0	
1402	b. _____	0	
	TOTAL ACQUISITIONS.....	\$0	
1500	6. ALL OTHER		
1501	a. GIS Computer Hardware	\$0	
1502	b. GIS Computer Software	0	
1503	c. Initial Data Collection Field Inventory Costs	0	
1504	d. Improvements to HVAC Systems (on consumer premises)	0	
1505	e. Ground Source Heat Pump System	0	
1506	f. Appliance Replacements	0	
1507	g. Building Envelope Improvements	0	
1508	h. Load Modifiers	0	
1509	i. Water Heater Upgrades	0	
1510	j. Consumer Contolled Home Energy Networks & Devices	0	
1511	k. Soft Costs	0	
1512	l. Miscellaneous/All Other	0	
	TOTAL ALL OTHER.....	\$0	
SECTION B. SUMMARY OF AMOUNTS AND SOURCES OF FINANCING			
1. GRAND TOTAL - ALL COSTS		\$66,545,200	
2. FUNDS AND MATERIALS AVAILABLE FOR FACILITIES			
a. Loan Funds		\$0	
b. Materials and Special Equipment		0	
c. General Funds			
Purpose 1		\$200	
Purpose 2		\$0	
Purpose 3		\$0	
Purpose 4		\$0	
Purpose 5		\$0	
Purpose 6		\$0	
Total General Funds Applied		\$200	
d. Total Available Funds and Materials		\$200	
3. NEW FINANCING REQUESTED FOR FACILITIES		\$66,545,000	
4. RUS LOAN REQUESTED FOR FACILITIES.....		100%	
5. TOTAL SUPPLEMENTAL LOAN REQUESTED		\$0	
National Rural Utilities Cooperative Finance Corporation			
Name of Supplemental Lender			
6. CAPITAL TERM CERTIFICATE PURCHASES (CFC Loan only) ..		0%	\$0
7. SUPPLEMENTAL LOAN REQUESTED FOR FACILITIES.....		0%	\$0
8. 100% SUPPLEMENTAL LOANS (SEE RUS Bulletin 20-14)*			\$0
* Identify in section A by budget purpose and separate subtotals.			
SECTION C. CERTIFICATION			
We, the undersigned, certify that:			
1. Upon completion of the electrical facilities contained herein and any others uncompleted at this time but for which financing is available, the system will be capable of adequately and dependably serving the projected load for the loan period as contained in our current RUS approved Power Requirement Study and Construction Work Plan.			
2. Negotiations have been or will be initiated with our power supplier, where necessary, to obtain new delivery points and/or additional capacity at existing ones to adequately supply the projected load upon which this loan application is based.			
3. The data contained herein and all supporting documents have to the best of my knowledge, been prepared correctly and in accordance with 7 CFR 1710.401(a)(3)			
<u>23 May 2018</u> Date		 Signature of Borrower's President and CEO	
<u>May 23, 2018</u> Date		 Signature of Borrower's Board Chair	
Central Virginia Electric Cooperative Corporate Name of Borrower			
GFR Initials <u>KS</u>			

Attachment to 740c
Virginia 29 BD8 Nelson
Borrower and Loan Designation

STATEMENT

Statement certifying that at least 90% of the Loan funds are for facilities with a useful life of 33 years or longer as required by 7 CFR 1710.115.

To facilitate the determination of the final maturity for this RUS Loan,
Central Virginia Electric Cooperative
does hereby certify that:

- At least 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer.
- Less than 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer. A schedule has been attached to this statement listing the facilities with an anticipated useful life of less than 33 years, the anticipated useful life of those facilities and the associated cost estimates (see attached).

24 May 2018
Date

Title:


President and CEO

Power Supply Contracts

Application Id: 3005631 | Borrower Name: CENTRAL VIRGINIA ELECTRIC COOPERATIVE

Source of Supply

Power Purchase Contract or Other Source of Power Supply	Contract Date	Expiration Date	Comments
EXELON	08/20/2010	05/20/2022	10 MW 7X24
MACQUARIE	12/21/2012	12/21/2019	10 MW 7X24
MORGAN STANLEY	02/07/2014	12/07/2024	10 MW 7X24
MACQUARIE	05/18/2015	12/31/2018	4.1 MW 7X24
SHELL	05/18/2015	12/31/2018	2.3 MW 5X16
CONSTELLATION/EXELON	11/23/2015	12/31/2018	3.6 MW 7X24
MERCURIA	11/23/2015	12/31/2018	2.5 MW 5X16
BP	11/23/2015	12/31/2018	5.0 MW 7X24 JAN,FEB AND DEC 2018
MORGAN STANLEY	11/23/2015	08/31/2018	3.3 MW 5X16 JUNE THRU AUGUST 2018
EDF	05/12/2016	12/31/2018	30.4 MW 7X24 JAN, FEB AND DEC 2018
TRANSALTA	05/12/2016	12/31/2019	6.2 MW 7X24
MORGAN STANLEY	06/30/2016	12/31/2021	14 MW 7X24 CY 2020-2021
CITI (AMP)	06/30/2016	12/31/2025	21 MW 7X24 CY 2022-2025
EDF	10/26/2016	08/31/2018	16.4 MW 7X24 JUNE - AUGUST 2018
EDF	10/26/2016	12/31/2019	6.3 MW 7X24 CY 2019
MORGAN STANLEY	06/30/2017	12/31/2019	26.8 MW 7X24 JAN, FEB AND DEC 2019
SHELL	06/30/2017	12/31/2018	LOAD SHAPE AEP
BP	06/30/2017	12/31/2018	LOAD SHAPE DOM
AEPEP	10/19/2017	12/31/2019	5.9 MW 7X24 JAN, FEB AND DEC 2019
MORGAN STANLEY	10/19/2017	08/31/2019	5.5 MW 5X16 JUNE -AUG 2019
MORGAN STANLEY	10/19/2001	12/31/2025	5 MW 7X24 JUNE 2022-DEC 2025
MORGAN STANLEY	10/20/2017	12/31/2020	6.4 MW 7X24 CY 2020
MORGAN STANLEY	10/20/2017	08/31/2019	7.0 MW 5X16 JUNE - AUGUST 2019
DOSWELL LIMITED PARTNERSHIP	01/27/2014	06/04/2018	30 MW CAPACITY

OFFICIAL

AMP FREEMONT ENERGY CENTER	07/01/2011	12/31/2050	27.982 MW GENERATION
BLUE CREEK WIND	04/01/2012	06/30/2022	4 MW GENERATION
SEPA HYDRO	10/01/1998	12/31/2099	7.956 MW GENERATION ONGOING CONTRACT
MARTIN SOLAR CENTER	04/01/2016	12/31/2043	5 MW SOLAR GENERATION
PALMER SOLAR CENTER	08/01/2016	12/31/2043	5 MW SOLAR GENERATION

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
AT RICHMOND, DECEMBER 3, 2018

SEC-CLERK'S OFFICE
DOCUMENT CONTROL CENTER

2018 DEC -3 P 2: 57

181210022

JOINT APPLICATION OF

CENTRAL VIRGINIA ELECTRIC COOPERATIVE

CASE NO. PUR-2018-00152

and

CENTRAL VIRGINIA SERVICES, INC.

For approval pursuant to Chapter 3 and
Chapter 4 of Title 56 of the Code of Virginia

FINAL ORDER

On September 12, 2018, Central Virginia Electric Cooperative ("CVEC") and Central Virginia Services, Inc. ("CVSI") (collectively, "Applicants"), filed a joint application ("Application") with the State Corporation Commission ("Commission") under Chapters 3¹ and 4² of Title 56 of the Code of Virginia ("Code") for authority: (1) to incur long-term debt from the United States Department of Agriculture Rural Utilities Service; (2) to issue a letter of credit through the Cooperative Finance Corporation ("CFC"); (3) for CVEC to provide a guarantee for a lease between CVSI and CoBank; (4) for CVEC to allocate to CVSI \$200,000 of its credit card limit with the CFC One Card Program ("Credit Card Allocation"); and (5) for CVEC to obtain a letter of credit from CFC on behalf of CVSI (collectively, "Fiber Support"). According to the Applicants, the financing and other arrangements described in this Application will assist CVEC

¹ Code § 56-55 *et seq.* ("Chapter 3").

² Code § 56-76 *et seq.* ("Affiliates Act").

and CVSI in implementing the fiber project described in the application filed by CVEC and CVSI in Case No. PUR-2018-00113.³

On October 3, 2018, the Commission issued an Extension Order pursuant to Code § 56-61 to extend the 25-day review period applicable to the Application an additional 30 days, through November 6, 2018.

On October 11, 2018, Nelson County Cablevision Corporation ("Nelson Cable") filed motions, comments, and a request for expedited consideration of its filings ("Nelson Cable Filings"), in which Nelson Cable requested that the Commission: (a) permit Nelson Cable to participate as a respondent in this docket addressing the Application; (b) appoint a Hearing Examiner to rule on any discovery matters that may arise during the course of this proceeding, including any motions related to the protective treatment of confidential information; (c) shorten the discovery response time to five business days; and (d) permit Nelson Cable to file additional comments.

On October 15, 2018, the Commission issued a Procedural Order establishing certain filing dates. Pursuant thereto, on October 17, 2018, the Applicants filed a response to the Nelson Cable Filings, and on October 19, 2018, Nelson Cable filed a reply.

On October 25, 2018, the Commission issued an Order addressing the Nelson Cable Filings and the responses thereto ("October 25 Order"). Pursuant to the October 25 Order, the Commission, in its discretion and based on the specific circumstances of this particular

³On October 23, 2018, the Commission issued a Final Order in Case No. PUR-2018-00113 granting approval of the proposed affiliate arrangements subject to certain requirements adopted therein. *See Application of Central Virginia Electric Cooperative and Central Virginia Services, Inc., For approval of affiliate arrangements*, Case No. PUR-2018-00113, Doc. Con. Cen. No. 181050207, Final Order (Oct. 23, 2018).

proceeding,⁴ granted Nelson Cable's motion to participate as a respondent in this proceeding on the condition that such participation did not prevent the Commission from meeting the statutory deadline in this matter. Accordingly, the Commission established a schedule that directed the filing of a report by the Staff ("Staff Report"), additional comments by Nelson Cable ("Additional Comments"), and a reply to the Staff Report and Additional Comments by the Applicants ("Reply"); assigned a Hearing Examiner to address discovery matters and establish expedited procedures for handling discovery; and extended the statutory review period to December 11, 2018, the maximum permitted under the Code § 56-77.⁵

On November 5, 2018, the Staff Report was filed in which the Staff summarized the results of its investigation of the Application. The Staff determined that: (i) the Fiber Support arrangements described in this Application appear to be in the public interest and reflect market based rates, and (ii) the intended uses of the proceeds from the financing arrangements are consistent with the purposes set out in Chapter 3.⁶ Accordingly, the Staff recommended that the Commission approve the Fiber Support arrangements, subject to the requirements outlined in the Appendix to the Staff Report.⁷ Staff's recommended requirements are as follows:

1. The duration of the Commission's approval of the Credit Card Allocation should be limited to five (5) years from the date of the Order in this case. Should the Applicants wish to continue the Credit Card Allocation after that date, separate Commission approval should be required.

⁴ See October 25 Order at 4 (noting, for example, that there are specific statutes and rules – that only apply to cooperatives – addressing behavior among a cooperative, its affiliates, and nonaffiliated third parties. *See, e.g.*, Code § 56-231.34:1 and 20 VAC 5-203-10 *et seq.*).

⁵ See October 25 Order at 2-5.

⁶ See Code § 56-58.

⁷ Staff Report at 8.

2. The Commission's approval of the Fiber Support should be limited to those transactions specifically identified in the agreements. Should the Applicants wish to modify the terms and conditions of any Fiber Support transaction, separate Commission approval should be required.
3. The approval granted in this case should have no accounting or ratemaking implications.
4. The Applicants should be required to maintain records demonstrating that CVSI bears the full cost of any Fiber Support transaction on its behalf. Such records should be available for Staff review upon request. CVEC should bear the burden of proving, in any rate proceeding, that it charged the higher of cost or market for all Fiber Support provided to CVSI.
5. The approval granted in this case should not preclude the Commission from exercising its authority under [the Affiliates Act] hereafter.
6. The Commission should reserve the right to examine the books and records of any affiliate in connection with the approval granted in this case, whether or not such affiliate is regulated by this Commission.
7. The Applicants should file an executed copy of the approved Fiber Support agreements within ninety (90) days of their execution.
8. CVEC should be required to include all transactions associated with the Fiber Support agreements in its Annual Report of Affiliate Transactions ("ARAT") submitted to the Commission's Director of the Division of Utility Accounting and Finance ("UAF Director") on May 1 of each year, subject to administrative extension by the UAF Director. The ARAT should include: (a) [t]he case number in which the Fiber Support was approved; (b) [t]he names of all direct and indirect affiliated parties to the Fiber Support; and (c) [a] calendar year annual schedule showing each Fiber Support agreement's transactions by month, FERC account, and amount as they are recorded in CVEC's books.
9. CVEC should file with the Commission within 90 days of the date of this [Order] documentation showing the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 of the Commission's regulations are being met with regard to the Fiber Support agreements.

On November 5, 2018, Nelson Cable filed its Additional Comments, which noted that the Commission had entered a Final Order in Case No. PUR-2018-00113, and requested that the

Applicants and the Commission provide guidance to it by answering seven questions set out therein.⁸

On November 13, 2018, the Applicants filed their Reply to the Staff Report and Nelson Cable's Additional Comments. As to the Staff Report, the Applicants stated that they do not object to the requirements recommended by Staff.⁹ The Applicants also described their plan to comply with the requirement for documentation showing that the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 will be met.¹⁰ As to Nelson Cable's Additional Comments, the Applicants asserted in part that Nelson Cable failed to address the specific financing and other arrangements described in this Application, and that given that there are no specific arguments or facts in the record of this proceeding that support denying the Application, requested that the Commission approve the Application consistent with the recommendations in the Staff Report.¹¹ The Applicants' Reply also addressed Nelson Cable's request for guidance.¹²

NOW THE COMMISSION, upon consideration hereof, is of the opinion and finds that the Fiber Support arrangements described in this Application are in the public interest and, therefore, should be approved for purposes of Chapter 3 and the Affiliates Act subject to certain requirements set forth in the Appendix attached hereto.

⁸ See Nelson Cable's Additional Comments at 2-4.

⁹ Applicants' Reply at 5.

¹⁰ *Id.*

¹¹ *Id.* at 4-6.

¹² *Id.* at 6-12.

Accordingly, IT IS ORDERED THAT:

(1) Pursuant to Chapter 3 and the Affiliates Act, the Applicants hereby are granted approval to enter into the Fiber Support arrangements described in this Application subject to the requirements set forth in the Appendix attached to this Final Order.

(2) This case hereby is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to:

Timothy E. Biller, Esquire, Hunton Andrews Kurth LLP, Riverfront Plaza, East Tower, 951 East Byrd Street, Richmond, Virginia 23219; Louis R. Monacell, Esquire, Peter E. Broadbent, Jr., Esquire, and Cliona Mary Robb, Esquire, Christian & Barton, L.L.P., 909 East Main Street, Suite 1200, Richmond, Virginia 23219-3095; and C. Meade Browder, Jr., Senior Assistant Attorney General, Division of Consumer Counsel, Office of the Attorney General, 202 N. 9th Street, 8th Floor, Richmond, Virginia 23219-3424. A copy also shall be delivered to the Commission's Office of General Counsel and Divisions of Utility Accounting and Finance and Public Utility Regulation.

APPENDIX

1. The duration of the Commission's approval of the Credit Card Allocation shall be limited to five (5) years from the date of the Order in this case. Should the Applicants wish to continue the Credit Card Allocation after that date, separate Commission approval shall be required.
2. The Commission's approval of the Fiber Support shall be limited to those transactions specifically identified in the agreements. Should the Applicants wish to modify the terms and conditions of any Fiber Support transaction, separate Commission approval shall be required.
3. The approval granted in this case shall have no accounting or ratemaking implications.
4. The Applicants shall be required to maintain records demonstrating that CVSI bears the full cost of any Fiber Support transaction on its behalf. Such records shall be available for Staff review upon request. CVEC shall bear the burden of proving, in any rate proceeding, that it charged the higher of cost or market for all Fiber Support provided to CVSI.
5. The approval granted in this case shall not preclude the Commission from exercising its authority under the Affiliates Act hereafter.
6. The Commission reserves the right to examine the books and records of any affiliate in connection with the approval granted in this case, whether or not such affiliate is regulated by this Commission.
7. The Applicants shall file an executed copy of the approved Fiber Support agreements within ninety (90) days of their execution.
8. CVEC shall be required to include all transactions associated with the Fiber Support agreements in its ARAT submitted to the UAF Director on May 1 of each year, subject to administrative extension by the UAF Director. The ARAT shall include: (a) the case number in which the Fiber Support was approved; (b) the names of all direct and indirect affiliated parties to the Fiber Support; and (c) a calendar year annual schedule showing each Fiber Support agreement's transactions by month, FERC account, and amount as they are recorded in CVEC's books.
9. CVEC shall file with the Commission within 90 days of the date of this Order documentation showing the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 of the Commission's regulations are being met with regard to the Fiber Support agreements.



COUNTY OF ALBEMARLE
Albemarle Broadband Authority
401 McIntire Road
Charlottesville, Virginia 22902-4596
(434) 296-5891

December 12, 2018

As Vice Chair of the Albemarle Broadband Authority (ABBA), I affirm that the current assets as reflected in the Albemarle County, Virginia CAFR for year end June 30, 2018 are available for use as contributions toward 2019 VATI applications.

The funding designated as available in the 2018 CAFR is available as to my knowledge; no other expenses have incurred during ABBA's performance year. The agreement to dedicate these funds for offered VATI grants was unanimously approved by the ABBA Board on their meeting held on December 11, 2018. The total designated contribution toward VATI projects does not exceed available ABBA budget.

The current ABBA assets are documented in the attachment, a Copy of the Albemarle County 2018 CAFR (year end June 30, 2018) Exhibit 38: Combining Statement of Changes in Assets and Liabilities Agency Funds. The ABBA assets are found on page 3.

ABBA is committing \$71,500 cash as in kind contribution toward the completion of the CVEC VATI 2019 project for Albemarle County if VATI funds are offered and accepted.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Culp".

Mike Culp, Vice Chairman
Albemarle Broadband Authority

Attachment

Attachment A – Copy of the Albemarle County 2018 CAFR (year end June 30, 2018) Exhibit 38: Combining Statement of Changes in Assets and Liabilities Agency Funds

COUNTY OF ALBEMARLE, VIRGINIA

Exhibit 38

Page 1 of 3

Combining Statement of Changes in Assets and Liabilities
Agency Funds
Year Ended June 30, 2018

	Balance July 1, 2017	Additions	Deletions	Balance June 30, 2018
Special Welfare Fund:				
Assets:				
Cash and investments	\$ 74,283	\$ 118,556	\$ 111,431	\$ 81,408
Liabilities:				
Amounts held for others	\$ 74,283	\$ 118,556	\$ 111,431	\$ 81,408
Drug Fund:				
Assets:				
Cash and investments	\$ 151,358	\$ 69,201	\$ 15,476	\$ 205,083
Liabilities:				
Amounts held for others	\$ 151,358	\$ 69,201	\$ 15,476	\$ 205,083
Payroll Suspense Fund:				
Assets:				
Cash and investments	\$ 661,388	\$ 629,890	\$ 661,388	\$ 629,890
Accounts receivable	8,806	5,433	8,806	5,433
Total assets	\$ 670,194	\$ 635,323	\$ 670,194	\$ 635,323
Liabilities:				
Accounts payable	\$ 670,194	\$ 635,323	\$ 670,194	\$ 635,323
HUD Family Self Sufficiency Fund:				
Assets:				
Cash and investments	\$ 24,127	\$ -	\$ -	\$ 24,127
Liabilities:				
Amounts held for others	\$ 24,127	\$ -	\$ -	\$ 24,127
County Contribution Fund:				
Assets:				
Cash and investments	\$ 46,682	\$ 29,969	\$ 15,000	\$ 61,651
Total assets	\$ 46,682	\$ 29,969	\$ 15,000	\$ 61,651
Liabilities:				
Amounts held for others	\$ 46,682	\$ 29,969	\$ 15,000	\$ 61,651
Ace Contribution Fund:				
Assets:				
Cash and investments	\$ 20,511	\$ 223	\$ -	\$ 20,734
Liabilities:				
Amounts held for others	\$ 20,511	\$ 223	\$ -	\$ 20,734

Combining Statement of Changes in Assets and Liabilities

Agency Funds

Year Ended June 30, 2018 (Continued)

	<u>Balance July 1, 2017</u>	<u>Additions</u>	<u>Deletions</u>	<u>Balance June 30, 2018</u>
Firearms Range Operating Fund:				
Assets:				
Cash and investments	\$ 100,389	\$ 243,410	\$ 166,370	\$ 177,429
Accounts receivable	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total assets	<u>\$ 100,389</u>	<u>\$ 243,410</u>	<u>\$ 166,370</u>	<u>\$ 177,429</u>
Liabilities:				
Accounts payable	<u>\$ 100,389</u>	<u>\$ 243,410</u>	<u>\$ 166,370</u>	<u>\$ 177,429</u>
CATEC Fund:				
Assets:				
Cash and investments	\$ (288,822)	\$ 2,010,099	\$ 1,874,353	\$ (153,076)
Accounts receivable	<u>429,386</u>	<u>279,817</u>	<u>429,386</u>	<u>279,817</u>
Total assets	<u>\$ 140,564</u>	<u>\$ 2,289,916</u>	<u>\$ 2,303,739</u>	<u>\$ 126,741</u>
Liabilities:				
Accounts payable	<u>\$ 140,564</u>	<u>\$ 2,289,916</u>	<u>\$ 2,303,739</u>	<u>\$ 126,741</u>
Appeal Bond Fund:				
Assets:				
Cash and investments	<u>\$ 4,500</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,500</u>
Liabilities:				
Amounts held for others	<u>\$ 4,500</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,500</u>
Sheriff Reserve Fund:				
Assets:				
Cash and investments	<u>\$ 1,541</u>	<u>\$ 787</u>	<u>\$ 240</u>	<u>\$ 2,088</u>
Liabilities:				
Amounts held for others	<u>\$ 1,541</u>	<u>\$ 787</u>	<u>\$ 240</u>	<u>\$ 2,088</u>
Performance Bond Fund:				
Assets:				
Cash and investments	<u>\$ 5,351,970</u>	<u>\$ 1,867,409</u>	<u>\$ 1,501,942</u>	<u>\$ 5,717,437</u>
Liabilities:				
Amounts held for others	<u>\$ 5,351,970</u>	<u>\$ 1,867,409</u>	<u>\$ 1,501,942</u>	<u>\$ 5,717,437</u>
Natural Heritage Fund:				
Assets:				
Cash and investments	<u>\$ 1,091</u>	<u>\$ 14</u>	<u>\$ -</u>	<u>\$ 1,105</u>
Liabilities:				
Amounts held for others	<u>\$ 1,091</u>	<u>\$ 14</u>	<u>\$ -</u>	<u>\$ 1,105</u>
Economic Development Authority Fund:				
Assets:				
Cash and investments	\$ 392,237	\$ 146,816	\$ 37,021	\$ 502,032
Accounts receivable	<u>128,237</u>	<u>126,987</u>	<u>128,237</u>	<u>126,987</u>
Total assets	<u>\$ 520,474</u>	<u>\$ 273,803</u>	<u>\$ 165,258</u>	<u>\$ 629,019</u>
Liabilities:				
Amounts held for others	<u>\$ 520,474</u>	<u>\$ 273,803</u>	<u>\$ 165,258</u>	<u>\$ 629,019</u>

Combining Statement of Changes in Assets and Liabilities

Agency Funds

Year Ended June 30, 2018 (Continued)

	Balance July 1, 2017	Additions	Deletions	Balance June 30, 2018
Commonwealth Attorney Commission Fund:				
Assets:				
Cash and investments	\$ 190,321	\$ 103,990	\$ 117,482	\$ 176,829
Accounts receivable	2,282	-	2,282	-
Total assets	\$ 192,603	\$ 103,990	\$ 119,764	\$ 176,829
Liabilities:				
Amounts held for others	\$ 192,603	\$ 103,990	\$ 119,764	\$ 176,829
Public Recreation Facility Authority:				
Assets:				
Cash and investments	\$ 145,707	\$ 42,108	\$ 402	\$ 187,413
Liabilities:				
Amounts held for others	\$ 145,707	\$ 42,108	\$ 402	\$ 187,413
Courts Escrow Fund:				
Assets:				
Cash and investments	\$ 7,807	\$ -	\$ -	\$ 7,807
Liabilities:				
Amounts held for others	\$ 7,807	\$ -	\$ -	\$ 7,807
Albemarle Broadband Authority:				
Assets:				
Cash and investments	\$ -	\$ 200,308	\$ -	\$ 200,308
Total assets	\$ -	\$ 200,308	\$ -	\$ 200,308
Liabilities:				
Amounts held for others	\$ -	\$ 200,308	\$ -	\$ 200,308
Totals--All Agency Funds:				
Assets:				
Cash and investments	\$ 6,885,090	\$ 5,462,780	\$ 4,501,105	\$ 7,846,765
Accounts receivable	568,711	412,237	568,711	412,237
Total assets	\$ 7,453,801	\$ 5,875,017	\$ 5,069,816	\$ 8,259,002
Liabilities:				
Accounts payable	\$ 911,147	\$ 3,168,649	\$ 3,140,303	\$ 939,493
Amounts held for others	6,542,654	2,706,368	1,929,513	7,319,509
Total liabilities	\$ 7,453,801	\$ 5,875,017	\$ 5,069,816	\$ 8,259,002

Dec. 13, 2018

CVEC/CVSI for Albemarle VATI 2019 Attachment 9 - Vendor Quotes

The vendors providing equipment to CVEC, from consulting companies to material vendors, have private contracts and proprietary pricing agreements in place with the cooperative. The cost estimates are based on the pricing from these documents, but CVEC cannot disclose the confidential pricing directly.

Cost estimates for the project are linked here:

<https://dmz1.dhcd.virginia.gov/CAMSPortal/UploadDocuments/CVECSupportingDocofCostEstimatesFTTHModel1213201885758.pdf>

Supporting documentation for costs estimates.



Rural Development

Rural Utilities Service

1400 Independence
Ave SW, Room 5135
Stop 1510
Washington, DC
20250

Voice 202.720.9540

Mr. H. T. Brown, Jr.
Chair
Central Virginia Electric Cooperative
P.O. Box 247
Lovingsston, Virginia 22949-0247

SEP 06 2018

Dear Mr. Brown:

We are pleased to advise you that a loan guarantee commitment in the amount of \$66,545,000 has been approved for Central Virginia Electric Cooperative (Central Virginia Electric Coop) by the Rural Utilities Service (RUS). Under this commitment, RUS will guarantee a loan of \$66,545,000 to Central Virginia Electric Coop from the Federal Financing Bank (FFB) under the terms and conditions set forth in the Note Purchase Commitment and Servicing Agreement dated as of January 1, 1992, as amended, between RUS and FFB. The proceeds of the guaranteed loan, designated "BD8", are to be used by Central Virginia Electric Coop to finance only the system extensions and additions described in the RUS Form 740c, Cost Estimates and Loan Budget for Electric Borrowers, dated May 23, 2018, enclosed and made a part hereof. Written approval by RUS must be obtained prior to the advancement of any loan proceeds for use for system extensions and additions that are not specifically listed on the enclosed RUS Form 740c.

The "BD8" Loan Contract and related documents, together with instructions, will be forwarded in the future for execution. The "BD8" loan is approved with the understanding that the loan documents will be authorized and executed by your organization and returned to us by the date set forth in the letter transmitting the documents.

Please note that this letter does not constitute an approval to advance the loan proceeds. Proceeds are eligible for advancement on the "BD8" loan after all conditions below have been met and the proper advance request documentation has been submitted to RUS:

1. RUS has entered into a contract of guarantee with Central Virginia Electric Coop and the FFB has agreed, with RUS approval, to make Central Virginia Electric Coop a guaranteed loan of \$66,545,000 to finance the system extensions and additions described on the enclosed RUS Form 740c;
2. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that the conditions in the contract of guarantee have been satisfied to the extent and in the manner prescribed by the Administrator;
3. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that Central Virginia Electric Coop has duly authorized, executed, and has delivered to the Administrator the RUS Loan Contract, the FFB Note and the Reimbursement Note in the manner prescribed by the Administrator; and

- 4. Central Virginia Electric Coop has submitted evidence, in form and substance satisfactory to the Administrator, that Central Virginia Electric Coop has duly authorized, executed, delivered, recorded, and filed a mortgage or other security instrument, if required, which is in form and substance satisfactory to the Administrator.

Please note that the approval of this loan guarantee commitment is an offer to Central Virginia Electric Cooperative of the "BD8" guaranteed loan. Your acknowledgement and acceptance of the "BD8" guaranteed loan is subject to the specified terms and conditions identified above.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2016, P.L. 114-113, Division E, Title VII, Sections 745 and 746, as amended and/or subsequently enacted for USDA agencies and offices regarding corporate felony convictions and corporate federal tax delinquencies. Please see the attached certification for compliance with these requirements.

Your acknowledgement and acceptance must be received by RUS, by signature, within 14 calendar days from the date of this letter; otherwise the commitment will be VOID. The Chairman or the Board President authorized by your organization to execute the loan documents must execute, date, and return this commitment and the attached Felony Form (AD-3031) via an E-Mail attachment to:

Karen Hargrove
E-Mail Address: LoanCommitment@wdc.usda.gov

If E-Mail is not possible, the signed document can be faxed to 1-844-875-8076. The original executed and dated commitment will remain in your files.

Sincerely,



Christopher A. McLean
Administrator
Rural Utilities Service

ACKNOWLEDGED AND ACCEPTED BY:

Name: _____

Title: _____

Date: _____

Enclosures RUS Form 740c
AD-3031

AD-3031

**U.S. Department of Agriculture
ASSURANCE REGARDING FELONY CONVICTION
OR TAX DELINQUENT STATUS FOR CORPORATE APPLICANTS**

NOTE: *The following statement is made in accordance with the Privacy Act of 1974 (5 USC 552(a)–as amended). The authority for requesting the following information for USDA agencies and offices is in sections 745 and 746 of the Consolidated Appropriations Act, 2016, Pub. L. 114-113, as amended and/or subsequently enacted. The information will be used to document compliance with appropriations restrictions.*

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number of this information collection is 0505-0025. The time required to complete this information collection is estimated to average 3 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud, privacy, and other statutes may be applicable to the information provided.

This award is subject to the provisions contained in the Consolidated Appropriations Act, 2016, Pub. L. 114-113, Division E, Title VII, sections 745 and 746, as amended and/or subsequently enacted for U.S. Department of Agriculture (USDA) agencies and offices regarding corporate felony convictions and corporate federal tax delinquencies.

Accordingly, by accepting this award the corporation recipient acknowledges: (1) that it does not have a Federal tax delinquency, meaning that it is not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, **and** (2) that it has not been convicted of a felony criminal violation under any Federal law within 24 months preceding the award, unless a suspending and debarring official of the USDA has considered suspension or debarment of the recipient corporation based on these convictions and/or tax delinquencies and determined that suspension or debarment is not necessary to protect the interests of the Government. If the recipient fails to comply with these provisions, the agency will annul this agreement and may recover any funds the recipient has expended in violation of the above cited statutory provisions.

APPLICANT'S SIGNATURE (BY)

TITLE/RELATIONSHIP OF THE INDIVIDUAL IF SIGNING IN A REPRESENTATIVE CAPACITY

BUSINESS NAME

DATE SIGNED (MM-DD-YYYY)

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This data will be used by RUS to review your financial situation. Your response is required (7 USC 901 et seq.) and is not confidential.

USDA-RUS COST ESTIMATES AND LOAN BUDGET FOR ELECTRIC BORROWERS To: U.S. Dept. of Agriculture, RUS, Washington, D. C. 20250 INSTRUCTIONS <i>See tabs "Pg1 Instr" through "Pg4 Instr"</i>	Form Approved OMB No. 0572-0032 BORROWER AND LOAN DESIGNATION Virginia 29 BD8 Nelson COST ESTIMATES AS OF: (Month, Year) Apr-18 LOAN PERIOD <u>3</u> YEARS CWP PERIOD <u>2018-2027</u> ← (W/ AMENDMENTS)																																																																																																																																																																																															
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1. DISTRIBUTION 100 a. New Line: (Excluding Tie-Lines) <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:15%;"></th> <th style="width:15%; text-align:center;"><u>Construction</u></th> <th style="width:15%; text-align:center;"><u>Consumers</u></th> <th style="width:15%; text-align:center;"><u>Miles</u></th> <th style="width:15%;"></th> <th style="width:15%;"></th> </tr> </thead> <tbody> <tr> <td>101</td> <td>Underground</td> <td style="text-align:center;">0</td> <td style="text-align:center;">0.00</td> <td></td> <td style="text-align:right;">\$0</td> </tr> <tr> <td>102</td> <td>Overhead</td> <td style="text-align:center;">0</td> <td style="text-align:center;">0.00</td> <td></td> <td style="text-align:right;">0</td> </tr> <tr> <td></td> <td>Total Consumers</td> <td style="text-align:center;">0</td> <td style="text-align:center;">0.00</td> <td>Total Miles</td> <td style="text-align:right;">0.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>Less Contributions</td> <td style="text-align:right;">0</td> </tr> <tr> <td></td> <td colspan="4"><i>Subtotal (New Line - code 100)</i></td> <td style="text-align:right;">\$0</td> </tr> </tbody> </table> 200 b. 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SECTION A. COST ESTIMATES (cont.)

500 e. Substation, Switching Station, Metering Point Changes

Station Designation	Description of Changes
501	
502	
503	
504	
505	
506	
507	
508	
509	
Subtotal From Page 2A	
Subtotal	

BORROWER'S COST ESTIMATES	RUS USE ONLY
\$0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
\$0	

600 f. Miscellaneous Distribution Equipment

601 Transformers and Meters

Construction	Overhead	Underground
Transformers	0 \$0	0 \$0
Meters	0 \$0	
Meters - AMR/AMI	0 \$0	
Subtotal code 601 (included in total of all 600 codes below)		

\$0	
0	
0	
0	
\$0	

602 (2) Sets of Service Wires to increase Capacity	
603 (3) Sectionalizing Equipment	
604 (4) Regulators	
605 (5) Capacitors	
606 (6) Pole Replacements	
607 (7) Conductor Replacements	
608 (8) Miscellaneous Replacements	
609 (9) Miscellaneous Plant Additions	
610 (10) Road Moves	
611 (11) Line Relocations	
612 (12) Step Up/Down Transformers	
613 (13) Min/Max Meters	
614 (14) Storm Damage	
615 (15) Communications	
Subtotal ALL 600 codes	

0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
66,545,200	
\$66,545,200	

700 g. Other Distribution Items

701 (1) Engineering Fees	
702 (2) Security Lights	
703 (3) Reimbursement of General Fund Consumers 0 Miles 0.00	
704 (4) Load Management & SCADA	
705 (5) Automated Meter Reading Equip.	
706 (6) Broadband over Power line (BPL)	
Subtotal	

\$0	
0	
0	
0	
0	
0	
0	
\$0	

TOTAL DISTRIBUTION

\$66,545,200	
--------------	--

800 2. Transmission

a. New Line

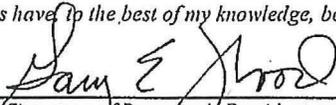
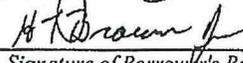
Line Designation	Voltage	Wire Size	Miles
801			
802			
803			
804			
805			
806			
807			
808			
809			
810			

\$0	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	

Subtotal Code 800 From Page 2A	0.00
Subtotal Code 800 (includes subtotals from Page 2)	0.00

0	
\$0	

SECTION A. COST ESTIMATES (cont.)			BORROWER'S COST ESTIMATES	RUS USE ONLY
900	b. New Substation, Switching Station, etc.			
	<u>Station Designation</u>	<u>kVA</u>	<u>kV TO kV</u>	
901	_____	_____	_____	\$0
902	_____	_____	_____	0
903	_____	_____	_____	0
904	_____	_____	_____	0
905	_____	_____	_____	0
906	_____	_____	_____	0
907	_____	_____	_____	0
908	_____	_____	_____	0
	<i>Subtotal Code 900 From Page 3A</i>			0
	<i>Subtotal Code 900</i>			\$0
1000	c. Line and Station Changes			
	<u>Line/Station Designation</u>	<u>Description of Changes</u>		
1001	_____	_____		\$0
1002	_____	_____		0
1003	_____	_____		0
1004	_____	_____		0
1005	_____	_____		0
1006	_____	_____		0
1007	_____	_____		0
1008	_____	_____		0
1009	_____	_____		0
	<i>Subtotal Code 1000 From page 3B</i>			0
	<i>Subtotal Code 1000</i>			\$0
1100	d. Other Transmission Items			
1101	(1) R/W Procurement	_____		\$0
1102	(2) Engineering Fees	_____		0
1103	(3) Reimbursement of General Funds	Miles	<u>0.00</u>	0
1104	(4) _____	_____		0
	<i>Subtotal</i>			\$0
	TOTAL TRANSMISSION.....			\$0
1200	3. GENERATION (including Step-up Station at Plant)			
1201	a Fuel	Nameplate Rating	_____ kW	\$0
1202	b. _____	_____		0
	TOTAL GENERATION.....			\$0
1300	4. HEADQUARTERS FACILITIES			
1301	a. New or additional Facilities	(Attach RUS Form 740g) _____		\$0
1302	b. _____	_____		0
	TOTAL HEADQUARTERS FACILITIES			\$0

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	
		Virginia 29 BD8 Nelson	
SECTION A. COST ESTIMATES (cont.)		BORROWER'S COST ESTIMATES	RUS USE ONLY
1400	5. ACQUISITIONS		
1401	a. _____ Consumers _____ Miles	\$0	
1402	b. _____	0	
	TOTAL ACQUISITIONS.....	\$0	
1500	6. ALL OTHER		
1501	a. GIS Computer Hardware	\$0	
1502	b. GIS Computer Software	0	
1503	c. Initial Data Collection Field Inventory Costs	0	
1504	d. Improvements to HVAC Systems (on consumer premises)	0	
1505	e. Ground Source Heat Pump System	0	
1506	f. Appliance Replacements	0	
1507	g. Building Envelope Improvements	0	
1508	h. Load Modifiers	0	
1509	i. Water Heater Upgrades	0	
1510	j. Consumer Contolled Home Energy Networks & Devices	0	
1511	k. Soft Costs	0	
1512	l. Miscellaneous/All Other	0	
	TOTAL ALL OTHER.....	\$0	
SECTION B. SUMMARY OF AMOUNTS AND SOURCES OF FINANCING			
1. GRAND TOTAL - ALL COSTS		\$66,545,200	
2. FUNDS AND MATERIALS AVAILABLE FOR FACILITIES			
a. Loan Funds		\$0	
b. Materials and Special Equipment		0	
c. General Funds			
Purpose 1		\$200	
Purpose 2		\$0	
Purpose 3		\$0	
Purpose 4		\$0	
Purpose 5		\$0	
Purpose 6		\$0	
Total General Funds Applied		\$200	
d. Total Available Funds and Materials		\$200	
3. NEW FINANCING REQUESTED FOR FACILITIES		\$66,545,000	
4. RUS LOAN REQUESTED FOR FACILITIES.....		100%	
5. TOTAL SUPPLEMENTAL LOAN REQUESTED		\$0	
National Rural Utilities Cooperative Finance Corporation			
Name of Supplemental Lender			
6. CAPITAL TERM CERTIFICATE PURCHASES (CFC Loan only) ..		0%	\$0
7. SUPPLEMENTAL LOAN REQUESTED FOR FACILITIES.....		0%	\$0
8. 100% SUPPLEMENTAL LOANS (SEE RUS Bulletin 20-14)*			\$0
* Identify in section A by budget purpose and separate subtotals.			
SECTION C. CERTIFICATION			
We, the undersigned, certify that:			
1. Upon completion of the electrical facilities contained herein and any others uncompleted at this time but for which financing is available, the system will be capable of adequately and dependably serving the projected load for the loan period as contained in our current RUS approved Power Requirement Study and Construction Work Plan.			
2. Negotiations have been or will be initiated with our power supplier, where necessary, to obtain new delivery points and/or additional capacity at existing ones to adequately supply the projected load upon which this loan application is based.			
3. The data contained herein and all supporting documents have to the best of my knowledge, been prepared correctly and in accordance with 7 CFR 1710.401(a)(3)			
<u>23 May 2018</u> Date		 Signature of Borrower's President and CEO	
<u>May 23, 2018</u> Date		 Signature of Borrower's Board Chair	
Central Virginia Electric Cooperative Corporate Name of Borrower			
GFR Initials <u>KS</u>			

Attachment to 740c
Virginia 29 BD8 Nelson
Borrower and Loan Designation

STATEMENT

Statement certifying that at least 90% of the Loan funds are for facilities with a useful life of 33 years or longer as required by 7 CFR 1710.115.

To facilitate the determination of the final maturity for this RUS Loan,
Central Virginia Electric Cooperative
does hereby certify that:

- At least 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer.
- Less than 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer. A schedule has been attached to this statement listing the facilities with an anticipated useful life of less than 33 years, the anticipated useful life of those facilities and the associated cost estimates (see attached).

24 May 2018
Date

Title: 
President and CEO

Power Supply Contracts

Application Id: 3005631 | Borrower Name: CENTRAL VIRGINIA ELECTRIC COOPERATIVE

Source of Supply

Power Purchase Contract or Other Source of Power Supply	Contract Date	Expiration Date	Comments
EXELON	08/20/2010	05/20/2022	10 MW 7X24
MACQUARIE	12/21/2012	12/21/2019	10 MW 7X24
MORGAN STANLEY	02/07/2014	12/07/2024	10 MW 7X24
MACQUARIE	05/18/2015	12/31/2018	4.1 MW 7X24
SHELL	05/18/2015	12/31/2018	2.3 MW 5X16
CONSTELLATION/EXELON	11/23/2015	12/31/2018	3.6 MW 7X24
MERCURIA	11/23/2015	12/31/2018	2.5 MW 5X16
BP	11/23/2015	12/31/2018	5.0 MW 7X24 JAN,FEB AND DEC 2018
MORGAN STANLEY	11/23/2015	08/31/2018	3.3 MW 5X16 JUNE THRU AUGUST 2018
EDF	05/12/2016	12/31/2018	30.4 MW 7X24 JAN, FEB AND DEC 2018
TRANSALTA	05/12/2016	12/31/2019	6.2 MW 7X24
MORGAN STANLEY	06/30/2016	12/31/2021	14 MW 7X24 CY 2020-2021
CITI (AMP)	06/30/2016	12/31/2025	21 MW 7X24 CY 2022-2025
EDF	10/26/2016	08/31/2018	16.4 MW 7X24 JUNE - AUGUST 2018
EDF	10/26/2016	12/31/2019	6.3 MW 7X24 CY 2019
MORGAN STANLEY	06/30/2017	12/31/2019	26.8 MW 7X24 JAN, FEB AND DEC 2019
SHELL	06/30/2017	12/31/2018	LOAD SHAPE AEP
BP	06/30/2017	12/31/2018	LOAD SHAPE DOM
AEPEP	10/19/2017	12/31/2019	5.9 MW 7X24 JAN, FEB AND DEC 2019
MORGAN STANLEY	10/19/2017	08/31/2019	5.5 MW 5X16 JUNE -AUG 2019
MORGAN STANLEY	10/19/2001	12/31/2025	5 MW 7X24 JUNE 2022-DEC 2025
MORGAN STANLEY	10/20/2017	12/31/2020	6.4 MW 7X24 CY 2020
MORGAN STANLEY	10/20/2017	08/31/2019	7.0 MW 5X16 JUNE - AUGUST 2019
DOSWELL LIMITED PARTNERSHIP	01/27/2014	06/04/2018	30 MW CAPACITY

OFFICIAL

AMP FREEMONT ENERGY CENTER	07/01/2011	12/31/2050	27.982 MW GENERATION
BLUE CREEK WIND	04/01/2012	06/30/2022	4 MW GENERATION
SEPA HYDRO	10/01/1998	12/31/2099	7.956 MW GENERATION ONGOING CONTRACT
MARTIN SOLAR CENTER	04/01/2016	12/31/2043	5 MW SOLAR GENERATION
PALMER SOLAR CENTER	08/01/2016	12/31/2043	5 MW SOLAR GENERATION

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
AT RICHMOND, DECEMBER 3, 2018

SEC-CLERK'S OFFICE
DOCUMENT CONTROL CENTER
2018 DEC -3 P 2: 57

181210022

JOINT APPLICATION OF

CENTRAL VIRGINIA ELECTRIC COOPERATIVE

CASE NO. PUR-2018-00152

and

CENTRAL VIRGINIA SERVICES, INC.

For approval pursuant to Chapter 3 and
Chapter 4 of Title 56 of the Code of Virginia

FINAL ORDER

On September 12, 2018, Central Virginia Electric Cooperative ("CVEC") and Central Virginia Services, Inc. ("CVSI") (collectively, "Applicants"), filed a joint application ("Application") with the State Corporation Commission ("Commission") under Chapters 3¹ and 4² of Title 56 of the Code of Virginia ("Code") for authority: (1) to incur long-term debt from the United States Department of Agriculture Rural Utilities Service; (2) to issue a letter of credit through the Cooperative Finance Corporation ("CFC"); (3) for CVEC to provide a guarantee for a lease between CVSI and CoBank; (4) for CVEC to allocate to CVSI \$200,000 of its credit card limit with the CFC One Card Program ("Credit Card Allocation"); and (5) for CVEC to obtain a letter of credit from CFC on behalf of CVSI (collectively, "Fiber Support"). According to the Applicants, the financing and other arrangements described in this Application will assist CVEC

¹ Code § 56-55 *et seq.* ("Chapter 3").

² Code § 56-76 *et seq.* ("Affiliates Act").

and CVSI in implementing the fiber project described in the application filed by CVEC and CVSI in Case No. PUR-2018-00113.³

On October 3, 2018, the Commission issued an Extension Order pursuant to Code § 56-61 to extend the 25-day review period applicable to the Application an additional 30 days, through November 6, 2018.

On October 11, 2018, Nelson County Cablevision Corporation ("Nelson Cable") filed motions, comments, and a request for expedited consideration of its filings ("Nelson Cable Filings"), in which Nelson Cable requested that the Commission: (a) permit Nelson Cable to participate as a respondent in this docket addressing the Application; (b) appoint a Hearing Examiner to rule on any discovery matters that may arise during the course of this proceeding, including any motions related to the protective treatment of confidential information; (c) shorten the discovery response time to five business days; and (d) permit Nelson Cable to file additional comments.

On October 15, 2018, the Commission issued a Procedural Order establishing certain filing dates. Pursuant thereto, on October 17, 2018, the Applicants filed a response to the Nelson Cable Filings, and on October 19, 2018, Nelson Cable filed a reply.

On October 25, 2018, the Commission issued an Order addressing the Nelson Cable Filings and the responses thereto ("October 25 Order"). Pursuant to the October 25 Order, the Commission, in its discretion and based on the specific circumstances of this particular

³On October 23, 2018, the Commission issued a Final Order in Case No. PUR-2018-00113 granting approval of the proposed affiliate arrangements subject to certain requirements adopted therein. *See Application of Central Virginia Electric Cooperative and Central Virginia Services, Inc., For approval of affiliate arrangements*, Case No. PUR-2018-00113, Doc. Con. Cen. No. 181050207, Final Order (Oct. 23, 2018).

proceeding,⁴ granted Nelson Cable's motion to participate as a respondent in this proceeding on the condition that such participation did not prevent the Commission from meeting the statutory deadline in this matter. Accordingly, the Commission established a schedule that directed the filing of a report by the Staff ("Staff Report"), additional comments by Nelson Cable ("Additional Comments"), and a reply to the Staff Report and Additional Comments by the Applicants ("Reply"); assigned a Hearing Examiner to address discovery matters and establish expedited procedures for handling discovery; and extended the statutory review period to December 11, 2018, the maximum permitted under the Code § 56-77.⁵

On November 5, 2018, the Staff Report was filed in which the Staff summarized the results of its investigation of the Application. The Staff determined that: (i) the Fiber Support arrangements described in this Application appear to be in the public interest and reflect market based rates, and (ii) the intended uses of the proceeds from the financing arrangements are consistent with the purposes set out in Chapter 3.⁶ Accordingly, the Staff recommended that the Commission approve the Fiber Support arrangements, subject to the requirements outlined in the Appendix to the Staff Report.⁷ Staff's recommended requirements are as follows:

1. The duration of the Commission's approval of the Credit Card Allocation should be limited to five (5) years from the date of the Order in this case. Should the Applicants wish to continue the Credit Card Allocation after that date, separate Commission approval should be required.

⁴ See October 25 Order at 4 (noting, for example, that there are specific statutes and rules – that only apply to cooperatives – addressing behavior among a cooperative, its affiliates, and nonaffiliated third parties. *See, e.g.*, Code § 56-231.34:1 and 20 VAC 5-203-10 *et seq.*).

⁵ See October 25 Order at 2-5.

⁶ See Code § 56-58.

⁷ Staff Report at 8.

2. The Commission's approval of the Fiber Support should be limited to those transactions specifically identified in the agreements. Should the Applicants wish to modify the terms and conditions of any Fiber Support transaction, separate Commission approval should be required.
3. The approval granted in this case should have no accounting or ratemaking implications.
4. The Applicants should be required to maintain records demonstrating that CVSI bears the full cost of any Fiber Support transaction on its behalf. Such records should be available for Staff review upon request. CVEC should bear the burden of proving, in any rate proceeding, that it charged the higher of cost or market for all Fiber Support provided to CVSI.
5. The approval granted in this case should not preclude the Commission from exercising its authority under [the Affiliates Act] hereafter.
6. The Commission should reserve the right to examine the books and records of any affiliate in connection with the approval granted in this case, whether or not such affiliate is regulated by this Commission.
7. The Applicants should file an executed copy of the approved Fiber Support agreements within ninety (90) days of their execution.
8. CVEC should be required to include all transactions associated with the Fiber Support agreements in its Annual Report of Affiliate Transactions ("ARAT") submitted to the Commission's Director of the Division of Utility Accounting and Finance ("UAF Director") on May 1 of each year, subject to administrative extension by the UAF Director. The ARAT should include: (a) [t]he case number in which the Fiber Support was approved; (b) [t]he names of all direct and indirect affiliated parties to the Fiber Support; and (c) [a] calendar year annual schedule showing each Fiber Support agreement's transactions by month, FERC account, and amount as they are recorded in CVEC's books.
9. CVEC should file with the Commission within 90 days of the date of this [Order] documentation showing the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 of the Commission's regulations are being met with regard to the Fiber Support agreements.

On November 5, 2018, Nelson Cable filed its Additional Comments, which noted that the Commission had entered a Final Order in Case No. PUR-2018-00113, and requested that the

Applicants and the Commission provide guidance to it by answering seven questions set out therein.⁸

On November 13, 2018, the Applicants filed their Reply to the Staff Report and Nelson Cable's Additional Comments. As to the Staff Report, the Applicants stated that they do not object to the requirements recommended by Staff.⁹ The Applicants also described their plan to comply with the requirement for documentation showing that the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 will be met.¹⁰ As to Nelson Cable's Additional Comments, the Applicants asserted in part that Nelson Cable failed to address the specific financing and other arrangements described in this Application, and that given that there are no specific arguments or facts in the record of this proceeding that support denying the Application, requested that the Commission approve the Application consistent with the recommendations in the Staff Report.¹¹ The Applicants' Reply also addressed Nelson Cable's request for guidance.¹²

NOW THE COMMISSION, upon consideration hereof, is of the opinion and finds that the Fiber Support arrangements described in this Application are in the public interest and, therefore, should be approved for purposes of Chapter 3 and the Affiliates Act subject to certain requirements set forth in the Appendix attached hereto.

⁸ See Nelson Cable's Additional Comments at 2-4.

⁹ Applicants' Reply at 5.

¹⁰ *Id.*

¹¹ *Id.* at 4-6.

¹² *Id.* at 6-12.

18121022

Accordingly, IT IS ORDERED THAT:

(1) Pursuant to Chapter 3 and the Affiliates Act, the Applicants hereby are granted approval to enter into the Fiber Support arrangements described in this Application subject to the requirements set forth in the Appendix attached to this Final Order.

(2) This case hereby is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to:

Timothy E. Biller, Esquire, Hunton Andrews Kurth LLP, Riverfront Plaza, East Tower, 951 East Byrd Street, Richmond, Virginia 23219; Louis R. Monacell, Esquire, Peter E. Broadbent, Jr., Esquire, and Cliona Mary Robb, Esquire, Christian & Barton, L.L.P., 909 East Main Street, Suite 1200, Richmond, Virginia 23219-3095; and C. Meade Browder, Jr., Senior Assistant Attorney General, Division of Consumer Counsel, Office of the Attorney General, 202 N. 9th Street, 8th Floor, Richmond, Virginia 23219-3424. A copy also shall be delivered to the Commission's Office of General Counsel and Divisions of Utility Accounting and Finance and Public Utility Regulation.

APPENDIX

1. The duration of the Commission's approval of the Credit Card Allocation shall be limited to five (5) years from the date of the Order in this case. Should the Applicants wish to continue the Credit Card Allocation after that date, separate Commission approval shall be required.
2. The Commission's approval of the Fiber Support shall be limited to those transactions specifically identified in the agreements. Should the Applicants wish to modify the terms and conditions of any Fiber Support transaction, separate Commission approval shall be required.
3. The approval granted in this case shall have no accounting or ratemaking implications.
4. The Applicants shall be required to maintain records demonstrating that CVSI bears the full cost of any Fiber Support transaction on its behalf. Such records shall be available for Staff review upon request. CVEC shall bear the burden of proving, in any rate proceeding, that it charged the higher of cost or market for all Fiber Support provided to CVSI.
5. The approval granted in this case shall not preclude the Commission from exercising its authority under the Affiliates Act hereafter.
6. The Commission reserves the right to examine the books and records of any affiliate in connection with the approval granted in this case, whether or not such affiliate is regulated by this Commission.
7. The Applicants shall file an executed copy of the approved Fiber Support agreements within ninety (90) days of their execution.
8. CVEC shall be required to include all transactions associated with the Fiber Support agreements in its ARAT submitted to the UAF Director on May 1 of each year, subject to administrative extension by the UAF Director. The ARAT shall include: (a) the case number in which the Fiber Support was approved; (b) the names of all direct and indirect affiliated parties to the Fiber Support; and (c) a calendar year annual schedule showing each Fiber Support agreement's transactions by month, FERC account, and amount as they are recorded in CVEC's books.
9. CVEC shall file with the Commission within 90 days of the date of this Order documentation showing the requirements of Code § 56-231.34:1 and 20 VAC 5-203-30 and -40 of the Commission's regulations are being met with regard to the Fiber Support agreements.

Dec. 13, 2018

CVEC/CVSI for Albemarle VATI 2019 Attachment 11 – Documentation that the proposed area is not unserved based on VATI criteria

The incumbent telephone provider is CenturyLink. They received CAF I funding to deliver a level of up to 10 mbps download to some areas within the project area. They have also extended infrastructure to deliver higher speeds nearby, but those areas have been excluded from the project area for this grant. They have been contacted and the grant area coordinated to avoid overlap.

SCSBroadband is a wireless provider in the area. When contacted they stated they had the area covered with the ability to deliver 10 mbps download speeds. A survey done of homes and businesses in the area indicated that some residents had contacted SCSBroadband and been told service was not available. There were responses from a small group of others indicating they did have wireless service from SCSBroadband and about half of those responses indicated they could not achieve 10 mbps on speed tests with their service. From the survey results it appears that SCSBroadband does not meet the requirements presently for delivering 10 mbps download and 1 mbps upload for 10 % of the potential customers in the proposed project area.

Both providers were contacted by email. The data they have reported to the FCC on Form 477 was reviewed. Residents were surveyed to provide actual service details. An advertisement listing the project was run in the local newspaper to allow these providers and any others to contact the applicant regarding overlap in service areas.

The proposed service area maps were provided to the other ISPs. The other providers did not provide accurate service area maps or clear delineation of where their service overlapped the proposed service area, making it impossible to provide a comprehensive map of service delivery in the area. Both Comcast and CenturyLink indicated that with changes to the service area to avoid overlap, the proposed map of L.U.'s doesn't conflict with their service.

The co-applicant is confident the proposed service area includes less than 10% homes and businesses that have access to broadband service delivered reliably at speed exceeding 10 mbps download and 1 mbps upload.

Dec. 13, 2018

CVEC/CVSI for Albemarle VATI 2019 Attachment 12 - documentation that area is not designated for CAF

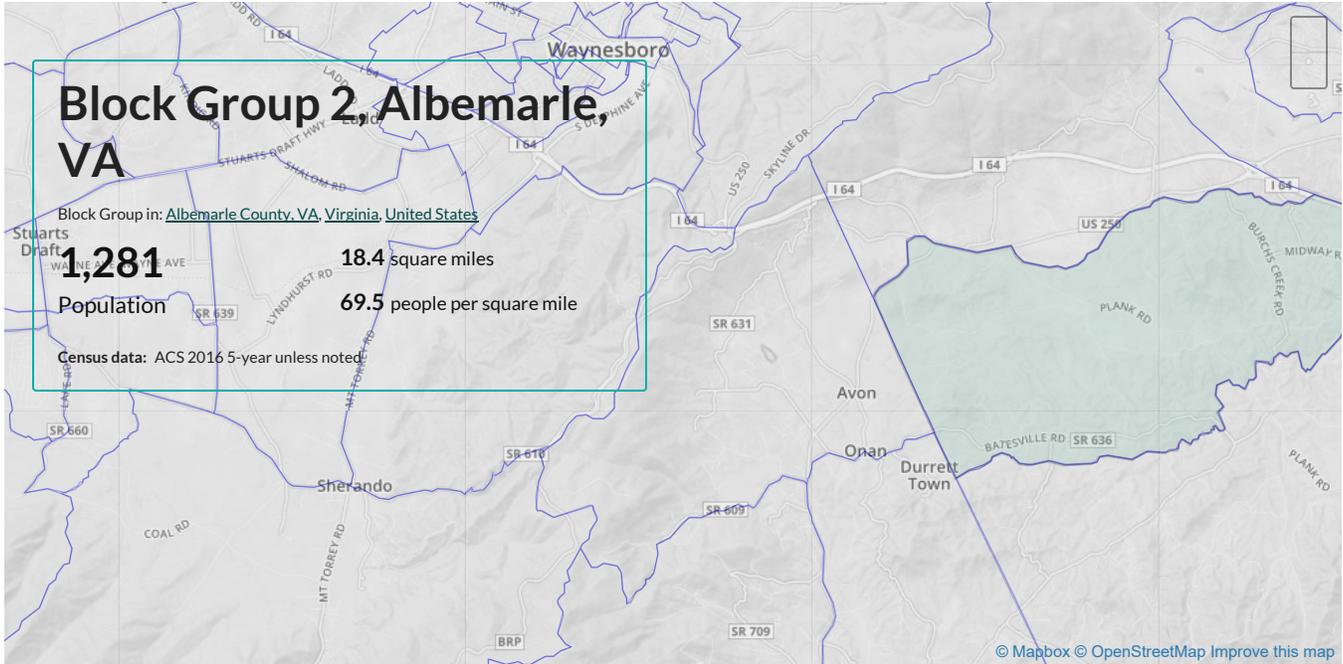
CVEC participated in the 2018 Connect America Fund auction and was awarded the census block groups adjacent to the grant project area. The project area has been given boundaries to avoid overlap with CAF II funding awarded in 2018.

December 13, 2018

VATI FUNDING SOURCES TABLE CVEC Albemarle Project

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	\$301,748	21	Pending
ABBA Contribution	\$ 71,500	5	SECURED
CVEC	\$1,081,475	74	SECURED
	\$		
	\$		
	\$		
	\$		
TOTAL	\$ 1,454,723	100 %	



Find data for this place

Interact with charts and statistics for margins of error and additional information.

Demographics

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Age

50.2

Median age

about 1.3 times the figure in Albemarle County: 38.9

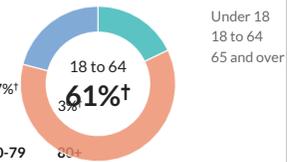
about 1.3 times the figure in Virginia: 37.8

Population by age range



Show data / Embed

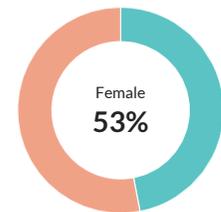
Population by age category



Show data / Embed

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Sex



Show data / Embed

Race & Ethnicity

Male 91%†
Female



* Hispanic includes respondents of any race. Other categories are non-Hispanic. Show data / Embed

Economics

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Income

\$36,361

Per capita income

a little less than the amount in Albemarle County: \$38,039
a little higher than the amount in Virginia: \$34,967

\$62,778

Median household income

about 90 percent of the amount in Albemarle County: \$70,342
a little less than the amount in Virginia: \$66,149

Household income

37%†

39%†

13%†

11%†

Under \$50K

\$50K - \$100K

\$100K - \$200K

Over \$200K

[Show data / Embed](#)

Poverty

N/A

Persons below poverty line

Children (Under 18)

Poverty
0%

Poverty
Non-poverty

[Show data / Embed](#)

Seniors (65 and over)

Poverty
0%

Poverty
Non-poverty

[Show data / Embed](#)

Transportation to work

N/A

Mean travel time to work

Means of transportation to work

0%
Drove alone

0%
Carpooled

0%
Public transit

0%
Bicycle

0%
Walked

0%
Other

Work

* Universe: Workers 16 years and over

[Show data / Embed](#)

Families

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Households

552

Number of households

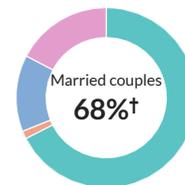
Albemarle County: 39,431
Virginia: 3,090,178

2.3

Persons per household

a little less than the figure in Albemarle County: 2.4
about 90 percent of the figure in Virginia: 2.6

Population by household type

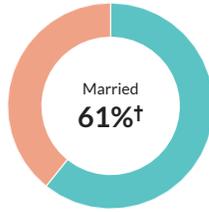


Married couples
Male householder
Female householder
Non-family

[Show data / Embed](#)

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Marital status



* Universe: Population 15 years and over
[Show data / Embed](#)

Marital status, by sex



[Show data / Embed](#)

Fertility

N/A

Women 15-50 who gave birth during past year

Women who gave birth during past year, by age group



* Universe: Women 15 to 50 years
[Show data / Embed](#)

Housing

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Units & Occupancy

660
 Number of housing units
 Albemarle County: 43,951
 Virginia: 3,445,357

Occupied vs. Vacant



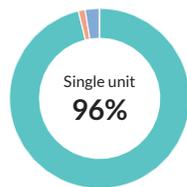
[Show data / Embed](#)

Ownership of occupied units



[Show data / Embed](#)

Types of structure



[Show data / Embed](#)

Year moved in, by percentage of population



[Show data / Embed](#)

Value

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

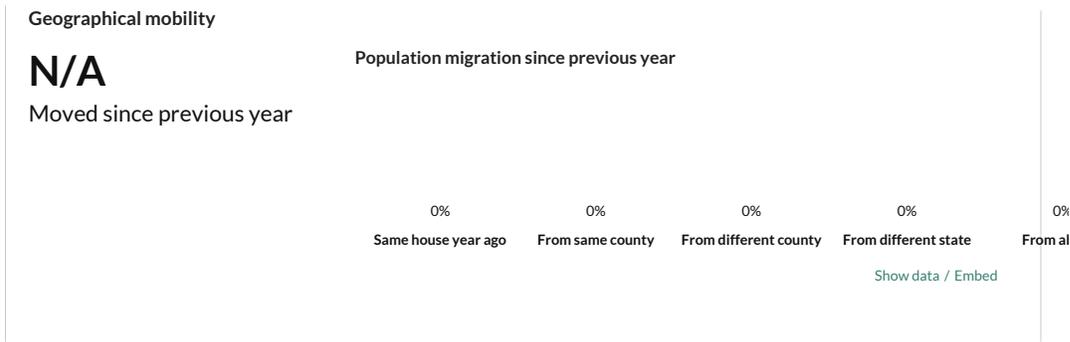
\$332,700
 Median value of owner-occupied housing units

a little higher than the amount in Albemarle County: \$317,300
 about 1.3 times the amount in Virginia: \$248,400

Value of owner-occupied housing units



[Show data / Embed](#)



Social

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Educational attainment

86.4%
High school grad or higher

a little less than the rate in Albemarle County: 91.4%
a little less than the rate in Virginia: 88.6%

38.7%
Bachelor's degree or higher

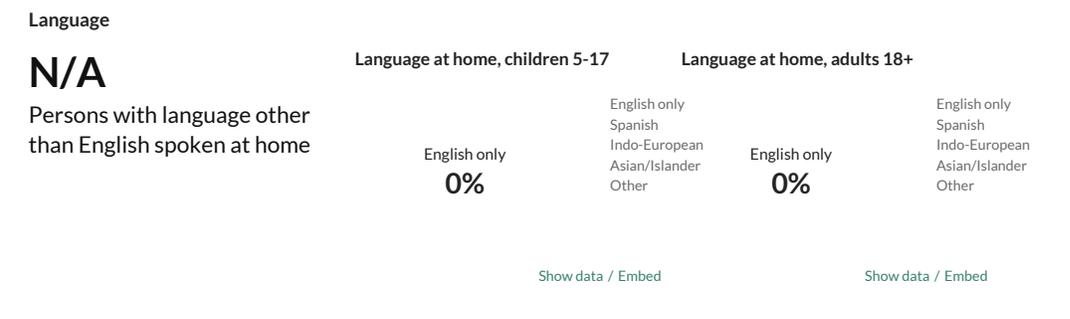
about three-quarters of the rate in Albemarle County: 51.5%
a little higher than the rate in Virginia: 36.9%

Population by minimum level of education

14%†	23%†	24%†	24%†	14%†
No degree	High school	Some college	Bachelor's	Post-gra

* Universe: Population 25 years and over

[Show data / Embed](#)



Veteran status

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

10.6%
Population with veteran status

about 1.3 times the rate in Albemarle County: 8.2%
a little less than the rate in Virginia: 11%

Veterans by wartime service

8†	16†	17†	0
WWII	Korea	Vietnam	Gulf (2001-)

* Civilian veterans who served during wartime only

[Show data / Embed](#)

111 Total veterans
111 Male
N/A Female

Interact with charts and statistics for margins of error and additional information.

Citation: U.S. Census Bureau (2016). *American Community Survey 5-year estimates*. Retrieved from *Census Reporter Profile page for Block Group 2, Albemarle, VA* <<https://censusreporter.org/profiles/15000US510030112012-block-group-1-albemarle-va/>>

[Census terms & definitions](#)

[Help & feedback](#)

[Email us](#)

[Census Reporter on GitHub](#)

[@CensusReporter](#)

[Census Reporter blog](#)

Select Limited Broadband Locations

Find address or place

The map displays several purple square markers representing limited broadband locations. The popup window provides the following details for the selected location:

Limited Broadband Locations: Cathy Warnick	
Home Owner Name	Cathy Warnick
Home Address	
Created	10/5/2018, 10:03 AM
CreatedBy	
Updated	10/5/2018, 10:03 AM
UpdatedBy	
Email	warnicks@gmail.com
Current Internet Speed - Download	Speed of 0 - 10 Mbps
Current Internet Speed - Upload	Speed of 0 - 10 Mbps
Current Provider	
Zoom to	***

ABBA

From email we received from Mike Culp, Vice Chair, Albemarle Broadband Authority

Internet User Information and Internet Speed Test Instructions 9/6/2018

The purpose of this instruction sheet is to help Albemarle County, VA collect basic internet user information and internet speed tests. This information will be used in application for grants through either the state or federal government. This information may also be used in a manner to help improve existing internet service. The information gathered will not be provided to any person or business without each responder's permission.

Internet User Information

Please answer the following. You can use the space on the back for additional comments:

1. Name and Address of Business or Home, and best phone number to reach you (not required)

A-D

If comfortable, names of adults living in the house and their individual contact information. It would be better to represent the number of people rather than the number of households. Bigger burden. It might be helpful to explain this. For kids, grades and school should be enough. If that's too much, then just the number of school-aged kids to get a sense of the burden students without broadband face these days.

2. Using the address entered, do you have internet service at your home or business?

E

For everyone in our neighborhood, the answer should be "no." Using the phone as a mifi is not a viable alternative, and we need to unite together that this is not really an option. I don't really count satellite Internet. It's certainly not broadband.

3. If no internet service, why not?

F

Easy answer. "Internet service is not offered." However, with the right amount of money, anyone can get Internet. It's important to hear from those who tried various different options, including SCS, microwave, or were enticed to buy a house by the broadband-over-powerline lie/debacle.

4. If you have internet service, do you know the advertised upload/download speed and if achieved would it be sufficient for your needs?

G

N/A for most of us, but I would be interested to hear neighbor's answers to this potentially confusing question.

5. Does your current provider limit the amount of data you can download each month without decreasing your connection speed?

H

Throttling. I know Jeremiah has had specific incidents of throttling. It would be interesting to see if he has any data or even anecdotal information about these events. Other neighbors may have similar stories.

6. If yes, does this cause problems for you? Please explain more in the space provided on the back of this form.

I

7. If you have internet service, which provider have you selected and are you happy with the service?

J

N/A

8. Have you attempted to use any other internet service, and if so, what were the results?

K

I would include any initiatives, devices, etc. folks may have tried. Cell phone boosters on the roof? Wireless relay? Satellite?

Internet Speed Test Results (if you have internet service at your home or business)

Please run an internet speed test from a device connected directly to your router (if applicable).

You can use whatever internet speed test you prefer. <https://www.measurementlab.net/p/ndt-ws.html> (MLAB) is a good suggestion because it runs without the need for Java or Flash. In this case, on the internet speed test web page a "button" with the words START TEST will display. On the MLAB web page, Click START TEST and the internet speed test will run. Don't worry, the internet speed test doesn't collect personal information. Please run the internet speed tests at multiple times during the day; showing variations.

Whichever internet speed test you use; when complete, save screenshots of the results with timestamps or print the results to PDF or some other electronic format. If possible, e-mail the Internet User Information and Internet Speed Test Results to mculp@albemarle.org; you may also print a paper copy of the Internet User Information and Internet Speed Test Results and FAX to (434) 972-4062.

email to jwarnick5@gmail.com so we can collect and submit all together.

Please let me know if you have any questions or need help running the internet speed test. Thanks in advance for your assistance, Mike Mike Culp

Vice Chair, Albemarle Broadband Authority Albemarle County, VA 434-296-5891

Internet User Information and Internet Speed Test Instructions 9/6/2018

Please use this space to answer the internet user information questions and for any additional comments:

email to jwarnick5@gmail.com so we can collect and submit all together.

**column in
"data" tab Doug's comments**

	date and time	upload	download	
1480 Beacon Hill	9/6/18 12:47 PM	288 kb/s	1.88 Mb/s	
	9/7/18 9:22 AM	149 kb/s	150 kb/s	
	9/8/18 12:35 PM	55 kb/s	202 kb/s	
	9/13/18 8:10 PM	629 kb/s	660 kb/s	
	9/25/18 9:10 AM	1.07 Mb/s	3.51 Mb/s	
	9/25/18 9:15 AM	531 kb/s	2.19 Mb/s	
1410 Beacon Hill	9/10/18 7:12 PM	370 kb/s	202 kb/s	
	9/11/18 6:34 AM	2.24 Mb/s	5.37 Mb/s	
1440 Beacon Hill	9/19/18 7:30 AM	24 kb/s	NAN	
	9/19/18 1:00 PM	457 kb/s	3.5 Mb/s	
1485 Beacon Hill	9/7/2018	43kb/s	500kb/s	
1485 Beacon Hill	9/7/2018	45kb/s	600kb/s	
1485 Beacon Hill	9/7/2018	40kb/s	400kb/s	
1415 Beacon Hill	9/15/2018	19.5 Mb/s	1.12 Mb/s	SCS
8660 Batesville Rd	9/15/18 2:00 PM	1.97 Mb/s	6.63 Mb/s	SCS

Rick and I own our own Physical Therapy practice and much of the insurance billing is done from our home office. Our internet speed and efficiency fluctuates tremendously and we use a Verizon MiFi to get our needs met - often frustrating and slow. We have 2 children in college who are extremely frustrated with the internet at home. Any time they need to connect to the web, they leave our home and head for my mother's home in Crozet as she has Comcast and excellent service. My 13 year old son has a computer from Henley Middle school and must use that rather than the Apple computers we have at home as he has better service with that device - and the service is not great! (he is often asking me to drive 20 minutes to my mother's home to use the wifi in Crozet.) Verizon is our only option for phone service where we live and our television is connected by Direct TV (who have a partnership with AT&T - making our service as a Verizon customer ridiculously expensive). Our wifi is so bad that we are unable to stream continueing education videos (necessary for our licenses) or entertainment at 1410 Beacon Hill

MLAB
YOUR TEST RESULTS

UPLOAD SPEED
2.24 Mb/s

DOWNLOAD SPEED
5.37 Mb/s

Network latency: 212 msec round trip time
Jitters: 409 msec

TEST AGAIN

9-11-18
Moore
6:34 AM

Page 1 of 1

MLAB
YOUR TEST RESULTS

UPLOAD SPEED
370.00 kb/s

DOWNLOAD SPEED
201.61 kb/s

Network latency: 466 msec round trip time
Jitters: 843 msec

TEST AGAIN

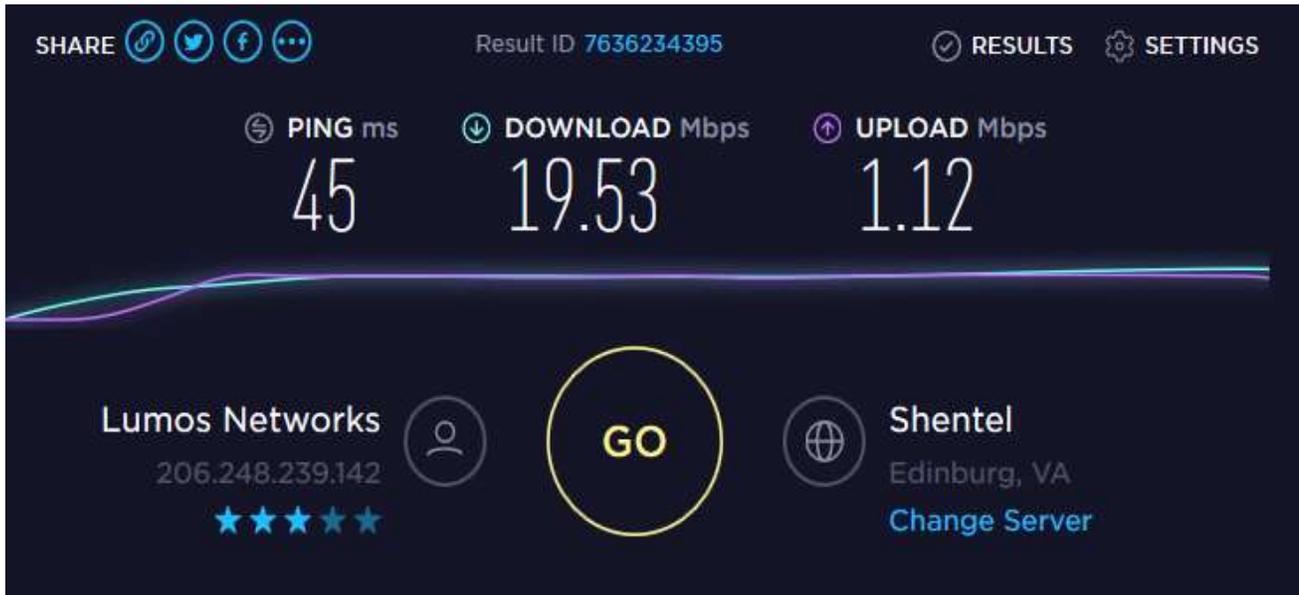
9-10-18
7:12 PM
Moore

Page 1 of 1

It should be noted that SCS does not work when it is raining!
We are signed up for "Premium", \$55 per month:

<https://scsbroadband.com/residential-internet/>

We have line-of-sight to the tower, looking over those of y'all down the hill.



Obviously, we have next to nothing in terms of connectivity. We can't even connect to our secure financial institution's website which makes it almost impossible to do anything electronically with our credit union which is a not local entity. It is extremely frustrating!! I go to the library to do most everything more involved than checking email (and even that sometimes isn't possible), but obviously I cannot do anything that requires a secure connection at a public library. For the amount of property taxes we pay in Albemarle county, it seems ridiculous that we are not considered important enough to have the county help us get decent internet service just because we live in a rural area!

7:15 a.m. 9/19/2018

UPLOAD SPEED

24.00 kb/s

DOWNLOAD SPEED

NAN Mb/s

12:15 p.m. 9/19/2018

UPLOAD SPEED

457.00 kb/s

DOWNLOAD SPEED

3.53 Mb/s

Testimonials
simple scan from printer and email to computer takes repeated efforts due to "internet not available"



9/22/2018 9:10 AM

YOUR TEST RESULTS

UPLOAD SPEED

1.07 Mb/s

DOWNLOAD SPEED

3.51 Mb/s

Network latency: 242 msec round trip time

Jitter: 519 msec

[TEST AGAIN](#)

Internet speed test



0.51

Mbps download

0.43

Mbps upload

Latency: 14 ms

Server: Chicago, IL

Your Internet speed is very slow

Your Internet download speed is very slow. Web browsing should work, but videos could load slowly.

Verison not spot 6/844643/8

Provider I "selected" isn't a selection at all ...it's really my only somewhat-workable option ...which is using my Verizon cell as a hotspot because there's really no other useful or useable option available. And I'm with you ...not happy with the results. It's better than having absolutely nothing else, but very inconvenient and as mentioned above, the connection and speed rates can certainly vary with the weather, the amount of users online, etc, etc.

I've personally attempted to use other wireless providers in the past with terrible results ...and some others I never bothered trying personally, because I'd already heard the terrible results from the neighbors who had tried them.

I've tried two ...both some time ago ...the kind where you put the little wireless receiver pack in the house. The first carrier I just can't recall. The second / most recent was Sprintabout 7-8

In fact, when you drive by my house you can see the trouble I'd gone to in trying to get signal. Look at the top of my house and you'll see a rod with a special antenna I'd put up. I bought special equipment that matched the required frequency ...bought a steel rod to create a 'mast' ...mounted the antenna on top up on top of the mast ...ran all the cabling down through the roof ...through the attic ...and down into the house ...down through the wallsinto a booster and wireless router ...and it worked ...it brought the signal in, but the upload and download speeds were *excruciatingly slow*. I mean like the old, old days of original dial up and waiting for 5 minutes for a single page to load. It was the best that I had at the time.

Now Verizon Wireless on my cell phone has an *ok* signal ...at least at my house ...so I resort to that, since it's better than nothing!

I have been chasing broadband solutions for quite some time now. Other than satellite (which is a bad choice) I have tried every available option as well as followed the most recent developments with SCS Broadband and CVEC.

I'd be happy to talk more about all of this but we should leverage the county supervisor to schedule a meeting with Gary Wood, CVEC CEO or the new GM at FireFly to inquire about extending off the Martin Store fiber build into the Midway area. There is federal funding available under the rural broadband initiative and w/a new bill inked under the Commerce Department which earmarked a tremendous amount of money to go to towards rural broadband.

I'd also throw out attempting to set up another meeting with Clay Stewart one of the principals at SCS Broadband, aka Acelanet LLC about the probability of installing a wireless transmitter closer to Signal Hill. Existing users are pulling 10 Mbps downstream on average.

We have satellite internet via Dishnet (Exede). 15-20 down, although with the high latency it can get problematic. Weather can also be a challenge.

SCS has been good, and customer service has been responsive to any questions or problems (they actually answer the phone!!!). Reliability in inclement weather is an issue from time to time though. Like I said before, they answer the phone or respond to emails, and work with us through issues. However, may be open to changing to a more reliable provider if available.

We have SCS Broadband which we can get because we get a decent signal off of their Heards Mtn tower. The internet from it is far from blazing but certainly adequate--quite fast enough during the morning and afternoon, though it often slows a lot in the evenings because of prime time saturation.

Until this past February we've been in the same boat as everyone else in Signal Hill, but the Heards Mtn tower and our elevation have suddenly provided some relief. I had to cut down several trees once Spring came (the leaves block the signal), but it's been acceptable all summer and should improve once winter comes.



AGREEMENT

THIS AGREEMENT, made this 14th day of December, 2018, by and between the **COUNTY OF ALBEMARLE, VIRGINIA** (the "COUNTY"), a political subdivision of the Commonwealth of Virginia, the **ECONOMIC DEVELOPMENT AUTHORITY OF ALBEMARLE COUNTY** (the "EDA"), a political subdivision established by the **ALBEMARLE COUNTY BOARD OF SUPERVISORS, CENTRAL VIRGINIA ELECTRIC COOPERATIVE** ("CVEC"), a Virginia utility consumer services cooperative, and **CENTRAL VIRGINIA SERVICES, INC.** ("CVSI"), a Virginia corporation.

WITNESSETH:

WHEREAS, the EDA has been created to promote the economic development of Albemarle County, Virginia, pursuant to enabling legislation under Section 15.2-4900 *et seq.* of the Code of Virginia and has authority to make grants of money or property to encourage economic development pursuant to Section 15.2-4905;

WHEREAS, CVEC has embarked on a project throughout its fourteen-county service area to install fiber optic cable to avail broadband to its rural residential and commercial customers. This project will include improvements to CVEC's distribution system needed to support the fiber optic cable, cable installation, service drops to individual customers, and supporting new equipment (the "Project");

WHEREAS, the system installed through the Project shall be operated by CVSI, a wholly owned subsidiary of CVEC;

WHEREAS, Firefly Fiber Broadband, a division of CVSI, will provide internet services to subscribing customers;

WHEREAS, CVEC desires certain financial assistance in order to pursue its undertaking;

WHEREAS, expanding broadband affordable access to the underserved, rural communities is identified as a priority area requiring further development in the County's 2017-2019 Strategic Plan and is consistent with the long-term strategic goals of investing in infrastructure, fostering economic prosperity, improving access to educational opportunities, and preserving rural area characteristics.

WHEREAS, it is in the public interest of County citizens for the EDA to assist with improving the availability of broadband residents and businesses in the County's rural areas as such improvement is consistent with the Albemarle County Economic Development Mission to support critical infrastructure and will benefit Albemarle County through an increase in the tax base and the availability of additional communication, education, and employment opportunities for its citizens, thereby promoting the health, safety, welfare, convenience, and prosperity of the citizens of the County;

WHEREAS, the COUNTY is willing to provide funds (the "County Grant") to appropriate annually to the EDA sums described hereinafter to be paid to CVSI as an incentive for it to pursue the Project in the County so long as CVEC meets its performance obligations; and

WHEREAS, the COUNTY, EDA, CVEC and CVSI desire to enter into this Agreement to memorialize the understandings and conditions under which financial incentives will be provided to CVSI by the EDA for the Project, and to set forth the obligations and responsibilities of the parties in connection therewith.

WHEREFORE, in consideration of the mutual promises of the parties and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Undertaking. CVEC will begin the Project in Albemarle County in 2019 at an estimated cost of \$11,000,000 and with an estimated completion date being five years from the beginning of work. CVEC will build a fiber-optic communications network throughout its electric distribution system in Albemarle County to provide broadband internet access to approximately 3600 residences and businesses served by CVEC. Please see “Albemarle County Proposal and Request for Support,” “Project Overview,” and “Albemarle County Map” attached and incorporated herein. CVSI intends to contribute to the Project by building additional fiber plant outside of CVEC’s electric system at an estimated cost of \$1,500,000.

2. Grant. To incentivize the completion of the Project by December 31, 2022, the COUNTY agrees to appropriate annually a Grant to the EDA for tax years 2019 through 2026 a sum equal to the COUNTY’s public service taxes attributable to each year’s construction costs of the Project in the County, as calculated according to law, subject to these limits: i. the annual Grant sum shall not exceed \$105,000.00; ii. total Grant appropriations shall not exceed \$550,000.00; and iii. a given year’s construction costs shall be eligible for a Grant payment for no more than five years. The Grant eligibility schedule is defined below:

<u>Year Construction Costs Incurred</u>	<u>Years Eligible for Grant</u>
2019	2020, 2021, 2022, 2023, 2024
2020	2021, 2022, 2023, 2024, 2025
2021	2022, 2023, 2024, 2025, 2026

2022	2023, 2024, 2025, 2026, 2027
2023	2024, 2025, 2026, 2027
2024	2025, 2026, 2027
2025	2026, 2027
2026	2027

Project construction costs occurring in 2027 or later shall not be eligible for the Grant.

3. Payments. The EDA shall pay the County Grant to CVSI within sixty days of each semi-annual tax due date provided that CVEC shall have paid all local taxes to the COUNTY as they fall due. There will be no grant for the taxes attributable to CVEC's currently existing real property, improvements, machinery and tools, personal property values, and public service values.

4. Schedule. CVEC or CVSI, as the case may be, shall take all reasonable steps and exercise due diligence in completing the Project related to particular substations in the following order:

- Martin's Store
- Zion
- Cash Corner
- Midway
- White Hall
- Schuyler
- Red Hill.

5. Reporting. CVEC and CVSI shall report, document, and verify to the EDA at CVEC's expense the construction cost and the price of its related new equipment and personal property for the Project installed in the County by no later than January 31st

for the preceding year. Upon the COUNTY's or EDA's request for additional information, CVEC and CVSI shall provide such additional information reasonably satisfactory to the COUNTY or EDA within thirty (30) days. No County Grant payment shall be made until the COUNTY or the EDA receives adequate documentation and verification.

6. Third-Party Grants. Grants secured by CVEC or CVSI either independently or jointly with the COUNTY, the EDA, or the Albemarle County Broadband Authority shall not setoff any of the County Grant; grants, gifts, or other funds secured by the COUNTY, the EDA, or the Albemarle County Broadband Authority independently of CVEC or CVSI may be used to pay the County Grant.

7. Appropriation. While the COUNTY has made clear its commitment to the undertaking in this Agreement, it is understood that funding must be appropriated by future Boards of Supervisors and thus no EDA funds are obligated to be paid under this Agreement should the EDA fail to receive the necessary funding from the COUNTY.

8. Termination.

(a) If at any time during the term of this Agreement, CVEC or CVSI fails to meet its obligations, the COUNTY or the EDA may terminate the Agreement. Upon termination, neither the COUNTY nor the EDA will be required to provide County Grant payments under Sections 2 and 3.

(b) If at any time during the Agreement term, CVEC or CVSI fails to pay any taxes due to the COUNTY, the COUNTY shall notify CVEC or CVSI of the overdue tax liability. The COUNTY shall provide CVEC or CVSI thirty (30) days from receipt of notice to pay any overdue taxes to the COUNTY. If CVEC or CVSI does not pay the overdue taxes to the COUNTY at the expiration of the 30-day

curative period, this Agreement shall automatically terminate and no further grant payments shall be due under Sections 2 and 3 of the Agreement.

9. Governing Law. This Agreement shall be construed in accordance with the laws of the Commonwealth of Virginia without regard to choice of law principles. The venue for any legal dispute arising from this Agreement shall be exclusively in Albemarle County, either before the Albemarle County Circuit Court or the United States District Court, Western District of Virginia, Charlottesville Division.

10. Indemnification. CVEC and CVSI shall indemnify and hold harmless the COUNTY and the EDA, their supervisors, officers, directors, agents, and employees from any and all liability, loss, damage, claims, causes of action, and expenses (including without limitation reasonable attorneys' fees), caused or asserted to have been caused, directly or indirectly, in connection with the performance of this Agreement and/or any act or omission of CVEC or CVSI or an employee, agent, or contractor of either or both, to the extent that such liability or damage is caused in whole or in part, by such party's negligence or intentional misconduct. The provisions of this section shall survive termination of this Agreement as to acts or omissions occurring prior to the effective date of termination.

This agreement shall not be construed to limit the COUNTY's or the EDA's rights, claims, or defenses which arise as a matter of law pursuant to any provisions of this agreement. This agreement shall not be construed to limit the sovereign immunity of the COUNTY or the EDA.

11. Entire Agreement. This Agreement constitutes the full agreement among the parties and no party shall be bound by any terms, conditions, or representations not contained herein. This Agreement may be modified only by written agreement signed

by the parties hereto with the same formality. This Agreement may be executed in one or more counterparts, each of which shall be an original.

12. Severability. If any provision of this Agreement is determined to be unenforceable, invalid, or illegal, then the enforceability, validity, and legality of the remaining provisions will not in any way be affected or impaired, and the unenforceable provision will be deemed to be restated to reflect the original intentions of the parties as nearly as possible in accordance with law.

13. Term. This Agreement shall run until 31 December 2026, when all obligations under this Agreement shall end.

14. Notices. Any notices required or permitted under this Agreement shall be given in writing and shall be deemed received upon actual receipt or refusal to accept after mailing such notice in the United States by certified mail, postage fully prepaid or by overnight courier. Refusal to accept means return of certified mail or non-acceptance of overnight courier delivery by the addressee.

If to CVEC or CVSI, to:

With a copy to:

Gary Wood, CEO
CVEC/CVSI
Post Office Box 247
Lovingson, Virginia 22949

If to the COUNTY, to:

Jeffrey Richardson, County Executive
Albemarle County Executive's Office
401 McIntire Road
Charlottesville, Virginia 22902

William M. Letteri, Director
Department of Finance
401 McIntire Road
Charlottesville, Virginia 22902

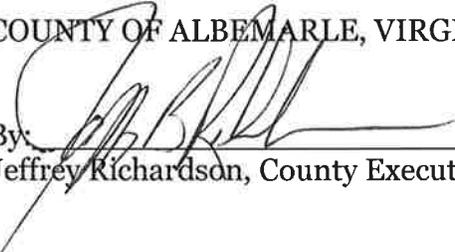
If to the EDA, to:

W. Rod Gentry, Chairman
Economic Development Authority
Albemarle County
401 McIntire Road
Charlottesville, Virginia 22902

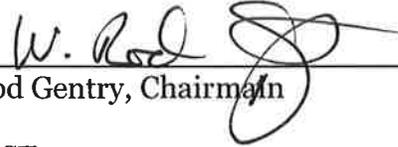
Roger Johnson, Director
Economic Development Office
Albemarle County
401 McIntire Road
Charlottesville, Virginia 22902

IN WITNESS WHEREOF, the parties hereto set their signatures and seals by their respective duly authorized representatives.

COUNTY OF ALBEMARLE, VIRGINIA

By: 
Jeffrey Richardson, County Executive

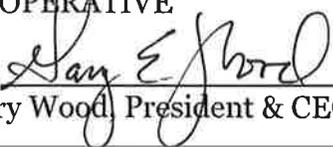
ECONOMIC DEVELOPMENT
AUTHORITY OF ALBEMARLE COUNTY

By: 
W. Rod Gentry, Chairman

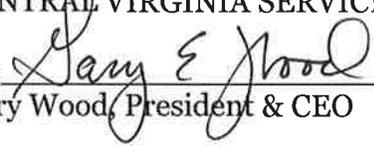
ATTEST:


Elton Oliver, Secretary/Treasurer

CENTRAL VIRGINIA ELECTRIC
COOPERATIVE

By: 
Gary Wood, President & CEO

CENTRAL VIRGINIA SERVICES, INC.

By: 
Gary Wood, President & CEO

Approved as to form only:



Greg Kamptner, County Attorney



Rural Fiber-Optic High Speed Broadband Internet Access

Albemarle County

Project Proposal and Request for Support

Central Virginia Electric Cooperative (CVEC) proposes to build a fiber-optic communications network throughout its electric distribution system. The communications system will provide benefits to the electric system operation but not pay for itself through electric system benefits alone. CVEC plans to lease the fiber-optic system to its wholly-owned subsidiary, Central Virginia Services, Inc. to provide broadband internet and communications services to residences and businesses. To accelerate the deployment of fiber and help overcome the digital divide in rural central Virginia, CVEC seeks support to help offset a small portion of the significant capital costs and/or to provide CVSI dependable cashflow in the first years of the new business.

The project will provide access to 3600 homes and businesses in rural Albemarle County. These members are served from six different CVEC substations (Cash's Corner, Martin's Store, Midway, Red Hill, White Hall, and Zion). The total investment for the fiber-optic network in Albemarle is estimated to be \$11 million.

CVEC requests combined capital and cash flow support [REDACTED] from Albemarle County to help offset costs and assure timely completion and success for the project. With this support, about two-thirds of the Albemarle accounts will be served within the first half of the project timeline, with the final one-third coming in the second half of the five year project.

The following are some potential funding options for Albemarle County:

1. Grant to offset capital costs
2. Economic Development Authority commitment to provide the equivalent of annual tax revenue from new plant investment for the first five years after each substation area is completed.
3. Contracts for broadband internet or communications services to public facilities such as schools, radio towers, libraries, etc.

This request will help our Board of Directors to see their way to committing to the full five-year build out contemplated in our feasibility study. Final decisions on the schedule for each substation will be based on overall density and cost of service to provide the best cash flows into the new subsidiary business as it develops enough to create positive annual cashflow.

The project will provide clear benefits to the accounts served with world-class, high-speed broadband internet service at very competitive rates. It will also provide benefits by expanding fiber availability into the most rural areas for further broadband expansion by companies wishing to extend the fiber further outside CVEC territory or for wireless internet providers. It will also expand options for cell phone providers and for other companies and groups needing high speed connections to rural tower sites for coverage. There will be a better platform for home businesses or telecommuting, reducing traffic and improving public safety. Home values will increase.

There are many, many positive outcomes from having a fiber-optic network deployed across the rural countryside in Albemarle County. CVEC is planning the project based on the benefits over the thirty year life of the fiber. Albemarle County will also see positive paybacks that justify a contribution to support timely construction of a virtually future-proof infrastructure to deliver communications and broadband services in the rural areas.



Project Overview

Central Virginia Electric Cooperative (CVEC) has a growing need for high-speed communications to many points on its electric distribution system. The Cooperative needs to improve communications speeds and bandwidth to its substations to allow for better equipment control and monitoring as well as for improved security. Downline equipment, including reclosers, regulators, capacitor banks, automatic switches, and voltage meters, all will provide better and more timely information through broadband connections. The immediate benefits for the CVEC members will be improved reliability and reduced power costs. In the longer term, a system-wide broadband network will provide the platform for next generation electric distribution smart grid applications, including integration of distributed generation resources and battery storage.

As a not-for-profit electric cooperative, CVEC is focused on its members' needs. Given the dearth of true high-speed broadband access throughout the CVEC service territory, the Cooperative plans to leverage the new fiber-optic network to help members overcome the digital divide that separates them from their more urban neighbors and from the world. CVEC plans to extend more than 4,500 miles of fiber-optic cable across parts of 14 central Virginia counties within five years to offer broadband connections to all 36,000 home and business accounts held by the CVEC membership. The total investment in infrastructure will be \$110 million.

CVEC is uniquely situated to provide this service in this area. The new cable will be installed on and adjacent to existing overhead and underground electric distribution lines. Utilizing the existing infrastructure, also paid for by the members, will make economical installation much more possible. CVEC has access to very low-cost financing through the Rural Utilities Service and several private cooperative banks serving the industry. CVEC is focused on service instead of profits, and can be patient to wait through a long breakeven period for the fiber investment.

CVEC sees the need for broadband for homes and businesses. Many recent studies and articles have explored rural broadband access and its impact on business, education and healthcare. It is easier to attract new businesses into an area when their potential employees can have a high quality of life including broadband access. Home values are enhanced, increasing personal wealth as well as providing local governments with growth in their real estate bases during an era of low growth. The utility investment will also provide tax revenue from the higher payments to local governments due to higher utility plant value. The benefits of this project touch members, businesses, schools, and local governments.

Having fiber-optic service to 36,000 points across central Virginia will also facilitate expansion of other communications networks. Cell towers, fixed wireless towers, private radio networks and 911 systems can benefit from fiber being available all across the rural CVEC service territory.

Given the many benefits to diverse parties, CVEC has committed to making the fiber-optic network a reality. The 11-year payback period is marginal for the level of investment, even for a not-for-profit. A 5% increase in costs extends the payback to year 13, and if take rates fall 5%, the payback period is extended to year 19. The CVEC Board of Directors has committed to the first year of the five-year buildout to allow staff to show proof of concept, to confirm construction estimates and revenue projections, and to look for support to reduce risks.

Business Organization and Services: CVEC will own the fiber-optic cable on its poles, and be responsible for its installation and maintenance. Under present Virginia code, the Cooperative is not allowed to provide broadband internet service. CVEC will operate its wholly owned subsidiary, Central Virginia Service Inc, which will lease the fiber from CVEC and provide retail services to internet customers.

Basic residential service will be 100 mbps internet with a target price of \$49.99 per month, with an optional service with 1 gigabit speed for \$79.99 per month. Neither service will have data limits. There will also be a voice over IP offering for telephone service, with a target price of \$29.99 per month for unlimited local and long distance calling. The other service will be a managed router service (\$5 per month) for customers who prefer not to own and maintain their own routers in their homes or businesses.

There will be a class of business offerings and there will be options for businesses who require bulk lit service or backhaul to the internet.

To operate the business and offer these services, the subsidiary will be staffed with 20 to 25 new jobs, including a general manager, fiber line technicians, service personnel for work in homes, customer service representatives in the call center, and network engineers.

Financing: CVEC will be responsible for the financing of the fiber plant and associated capital costs. Support to offset the capital costs will go to CVEC and be used to reduce the loans and associated interest payments. CVEC will lease the fiber plant to the subsidiary to allow CVSI to sell internet service through the fiber. CVSI will be responsible for leased fiber payments as well as all other internet and voice service costs, the capital investment for the electronics to operate the business, and all operational expenses.

Any cash flow incentives will be directed to CVSI which is projected to lose money the first six years of the business plan and reach breakeven in year 11.

In addition to the capital investment CVEC and CVSI will make in the project, they will seek support from federal, state and local governments and agencies. Their goal is to obtain \$20 to \$25 million in support through a combination of one-time capital support and ongoing cash flow support for the first five years of the project.

CVEC plans to participate in the Federal Communications Commission Connect America Fund Auction, Phase II and seek other federal grants that will total \$5 to \$10 million. It will seek support from the Tobacco Commission Last Mile program and grants from state government agencies to provide \$5 to \$8 million in support. CVEC will ask counties to provide economic development support, including consideration of grants equivalent to the first five years of taxes on the new investment in each county. These local programs will hopefully provide \$3 to \$5 million in support. CVEC will also seek local grants, matching funds, in-kind services (fiber swaps, use of conduit or easements, etc.), and guaranteed contracts for broadband internet and communications services to government buildings and facilities such as schools, towers, and libraries, to provide an additional \$4 to \$7 million in support.

~~This level of support will provide for an approximate 80-20 match with CVEC and its affiliate organization, providing 80% of the cost to solve the broadband problems for large portions of the central Virginia countryside. This level of support will allow the Board of Directors of CVEC to feel more comfortable making the decision to commit to the full \$110 million project.~~

Scheduling and Priority: The intent is to begin construction in the third quarter of 2017 and continue building for five years. The areas to be built each year will be decided based on creating maximum positive cash flows for the new organization. Priority will be given to higher density areas and those with a lower cost to serve. Consideration will be given to how contributions impact cost, and these considerations will influence scheduling each year. CVEC's goal is to complete the project and make service available to all CVEC members in five years.



CENTRAL VIRGINIA ELECTRIC COOPERATIVE

ALBEMARLE COUNTY

Legend

Substation by Color

- Martins Store
- Midway
- Cashes Corner
- Schuyler
- Centenary
- Cunningham
- Red Hill
- Zions Crossroads
- Kidds Store
- White Hall
- Mt. Rush

