

# Application to DHCD Submitted through CAMS

Botetourt County

Botetourt Broadband 2019

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**Application ID:** 59811132018142709  
**Application Status:** In Progress - DHCD  
**Program Name:** Virginia Telecommunications Initiative 2019  
**Organization Name:** Botetourt County  
**Organization Address:** 5 West Back Street  
Fincastle, VA 24090  
**Profile Manager Name:**  
**Profile Manager Phone:**  
**Profile Manager Email:**

**Project Name:** Botetourt Broadband 2019  
**Project Contact Name:** Shawn Hildebrand  
**Project Contact Phone:** (540) 580-9495  
**Project Contact Email:** shawn.hildebrand@cbec.coop  
**Project Location:** 1 West Main Street, Box 1  
Fincastle, VA 24090-0087  
**Project Service Area:** Botetourt County

**Total Requested Amount:** \$758,998.00

**Required Annual Audit Status:** No Current Audits Found

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$758,998.00</b>	<b>\$1,207,999.00</b>	<b>\$1,966,997.00</b>
Construction	\$758,998.00	\$1,009,632.00	\$1,768,630.00
Construction Related Soft Costs	\$0.00	\$198,367.00	\$198,367.00
<b>Total:</b>	<b>\$758,998.00</b>	<b>\$1,207,999.00</b>	<b>\$1,966,997.00</b>

## Budget Narrative:

The proposed budget is based on the verified capital needs within the parameters of passing 621 homes in Botetourt county. The proposed budget was created by examining cost of building the fiber system. Once the cost to build was established, the project team worked together to define the other sources of funding. The two other sources of funding include \$220,000 from Botetourt county in cash and in kind and Craig-Botetourt Electric Cooperative contributed \$987,999 in cash and in kind services. Our goal in preparing the budget was to evaluate the DHCD funds request on per home passed basis.

## 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 project's proposed geographic area is the unserved southwestern portion of Botetourt County, not including National Forest land. The street names/route numbers include:

- 1.) From the Craig/Botetourt County line along Grove Hill Road (Route 606) to the intersection of Breckinridge Mill Road (Route 600).
- 2.) Along Breckinridge Mill Road (Route 600) to Haymakertown Road (Route 600).
- 3.) Along Haymakertown Road (Route 600) to the intersection of Catawba Road (Route 779) to the Botetourt/Roanoke County line, also including Little Catawba Creek Road (Route 600).
- 4.) Along Lee Lane (Route 666) to Haymakertown Road (Route 600).
- 5.) Along Stone Coal Road (Route 748).

The above streets/routes and the Botetourt County line creates the boundary for the proposed geographic area. Within the boundary, all streets/routes would be served; which include Lees Gap Road (Route 666), Routes 1231 and 1230, Routes 1160, 1161 and 1162 and Camp Fincastle Lane.

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The proposed geographic area is identified as the 510230403021 census block group by the United States Census Bureau.

This proposed geographic area was selected because: 1.) It adjoins a portion of Mid-Atlantic Broadband Communities Corporation fiber network. 2.) The current level of broadband service meets the qualifications for the grant. 3.) The median home value is \$310,000+, yet families do not have access to broadband, which is critical for students and home-based businesses and telework offices. 4.) There are businesses in the area who are constrained by the current level of broadband service. 5.) It is strategically located half way between two of Craig-Botetourt Electric Cooperative's substations, which will lead to developing consistent communications for smart grid electric functions and improved electric service reliability. 6.) The project will help influence future housing and economic development in the Cooperative's service area, which will help to manage the Cooperative's retail electric rates. 7.) This area is also lacking adequate cell phone coverage. This project will allow for the offering of voice-over IP phone service to homes and businesses. 8.) It will allow for the expansion of cellular coverage area.

The proposed geographic area is located within Craig-Botetourt's certificated service territory and was identified by residents who expressed a strong desire for broadband service. Once the lack of adequate broadband was brought to the Cooperative's attention, we started to explore what it would take to provide the service and how the Cooperative and it's customer/members would benefit from the project. At this time, other electric cooperatives are researching or building their broadband systems. One of the seven cooperative principles, of which cooperatives are built on, is Concern for Community. All seven cooperative principles can be found at [www.electric.coop/seven-cooperative-principles/](http://www.electric.coop/seven-cooperative-principles/).

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:**

Craig-Botetourt Electric Cooperative pulled the latest FCC 477 data (as of June 2017), in addition to reviewing the 2017 Botetourt County Telecommunications citizen survey conducted by Eddy Communication in December 2017. The survey showed the County that there is a need for a better solution to accessing the internet than what is currently being offered in the County. One of the recommendations of the survey was to establish a County Board of Supervisor supported Broadband Advisory Commission. The Broadband Advisory Commission was established and meets on a monthly basis. It is an open meeting and is attended by residents, business owners, local government, media and other interested parties; including current and prospective internet service providers. One of the first accomplishments of the Broadband Advisory Commission was the creation of the BOCO Broadband Summit held on September 25 & 26, 2018. There were speakers from private industry, government and higher education. More information regarding the BOCO Summit can be found at [www.bocosummit.com](http://www.bocosummit.com). The Cooperative sent out a mailing to all 621 addressable locations within the proposed project area to garner their support for this project. The applicants have met with the local leadership of the largest current internet service provider to learn how we can work together with the goal of providing adequate broadband service to all residents of the county.

3. Project Need/Description

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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 area.

**Answer:**

We accessed the latest FCC 477 data and the FCC Broadband map. As of June 2017, there is one provider, other than satellite, that is reporting coverage within the proposed area with ADSL technology (6Mbps down/1Mbps up). We have attached a map that shows the 477 data for all service providing speeds greater than 10Mbps/1Mbps. We have color-coded the type of technology: green is ADSL/DSL, light blue is cable and dark blue is fiber. The dark blue is the proposed Craig-Botetourt fiber deployment associated with this grant request. The area circled in red is the only known overlap area for this build and is limited to just two possible customers. We also checked the local ISP's service availability tool for multiple addresses within the selected project area and found either no available or minimal service available (10Mbps/1Mbps up).

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:**

The proposed project area will serve 621 unserved (no access to internet service greater than 10Mbps/1Mbps, other than satellite) addressed locations based on Botetourt County parcel data and FCC 477 coverage data. The latest US Census indicates 25% of these households have school-aged children. We estimate a take-rate of 65.4% based on household income, education attainment and age; which is derived from 2018 research data on adoption from the Pew Research Institute. The take-rate would result in providing service to 406 addressed locations within the proposed project area.

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

**Answer:**

The proposed project area would encompass 56 businesses, either home-based or stand-alone, (based on Botetourt County business data) and one community anchor institution.

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:**

We estimate a take-rate (number of locations likely to subscribe to the service) to be 65.4% based on 2018 research data on adoption from the Pew Research Institute. Craig-Botetourt Electric Cooperative has already begun discussing the prospects of providing broadband service to the projected area. There has been a news article in the Fincastle Herald. We also have completed a direct mailing to the homes in the proposed project area, communicated the status of the proposed project with the citizens, and shared the next steps. Once we receive funding, the Cooperative will work with the Virginia, Maryland Delaware Association of Electric Cooperatives (VMDAEC) to develop marketing materials for the service. We will also have community meetings to share the

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information about the service, timeline and any other information the resident needs. The Cooperative has already done a direct mailing to the 621 addresses that are located in the proposed project area. We have since received over 100 letters of support from these citizens. We have attached a file that has a copy of each letter.

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

**Answer:**

Our proposed project will consist of 16 miles of "middle" mile and 54 miles of "last" mile. We have attached a map, file name is "CBEC Miles Layout", that shows the build out with the middle and last miles clearly identified. We will be interconnecting with Mid-Atlantic Broadband Communities Corporation facilities, which is considered as "backbone". The point of interconnection is labelled as INTERCONNECT.

## OSP Design

The outside plant (OSP) design categorizes the physical network into four separate tiers, namely backbone, distribution (mid-mile), access (last-mile) and drop fiber as illustrated in figure 1. The fiber will be designed in both aerial space utilizing CBEC owned poles and underground in the rights of way.

## Middle mile Fiber

The backbone section of this build will be between the data center (hut) location and where Mid-Atlantic Broadband Communities Corporation (MBC) point of interconnection takes place. The data center contains electronics called optical line terminals (OLTs) that in a passive optical network such as GPON terminates the optical loop at the edge of the network.

## Distribution (last-mile) Fiber

The Distribution Fiber (DF) sections consist of fiber optic cabling between the data center (hut) and local converge points (LCP) (e.g. cabinets) - where the first PON optical splitters are housed. The design incorporates a number of spare fibers that will be terminated at the LCP, but not utilized in the initial design and reserved for future growth. The engineering team utilizing GIS data has applied a max range of 20km to ensure the design does not exceed the standard performance of either GPON or Active Ethernet or to each optical networking terminal (ONT) in each CBEC serving area.

## Access (last-mile) Fiber

The Access Fiber (AF) section from the LCPs to the ONTs will use tree topology and consist of a distributed optical split architecture as density directs at a hut level. The LCP will feed a number of legs (typically 6 to 10) that feed the service to the ONTs. The design dictates the fiber count in the access level. When considering the amount of fiber placed in the access portion of the network all possible considerations will be given such as dark fiber back haul, WiFi and 5G deployments and the IOT requirements.

## Drop Fiber

The drop fiber for residential service will be a 2-count fiber and will be placed from a network access point (NAP)

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to the ONT at the house or premise location. If it is a business drop a 12 drop fiber will placed.

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?

**Answer:**

Not applicable for this project. The proposed project is primary fiber to the home 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:**

## Residential GPON Access Service

Residential high-speed data will go through GPON Access Network. An indoor GPON Optical Network Terminal (ONT) will be deployed at the residence, which will connect to the Optical Line terminals placed in the Data Center location. The customer premise equipment devices will connect to ONTs. Residential services will be serviced at 1.2Gbps uplink and 2.4Gbps downlink speeds. Internet traffic for residential services will be in the best effort class of quality of Service (QoS). Different speeds can be defined based on pre-defined profiles and Network policies. Access demarcation will be the ONT.

## Small/Medium business GPON Service

Home Based or small to medium business can opt for high-speed data through GPON Access Network. The characteristics for this service will be similar to Residential GPON service, but it can have a higher priority in the network for better performance. This type of traffic can be classified into Assured Forwarding class. The ONT will be the demark device.

## Large Business Ethernet 1Gps Service

Large business Ethernet service will use dedicated/unshared Ethernet link on the FTTx network. The dedicated 1Gbps service will be available as an option utilizing the same electronic system. Optionally system can use AE ONT, switched Ethernet or dedicated GPON system to provide the Ethernet service to the large businesses with critical needs and data rate assurance. Customer Premise Equipment CPE which will be placed outside the business premises offering further connections to the customer's location. Active Ethernet, Switched Ethernet or GPON ONT will connect to the Data Center OLT at 1Gbps up/down. Similarly to traditional GPON, the Ethernet business customer can also be classified into Assured Forwarding and Expedited classes for differentiated service. However Ethernet (AE and Switched) is not oversubscribed at the access level and uses the dedicated Ethernet port on the OLT or in the switching system. The ONT will be the demarc device for this service.

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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:**

CBEC will utilize a hybrid design approach to create a state of the art network design, serving the needs of the different types of customers, while being cost effective and efficient. Considering the number of subscribers and the capacity needed for the planned services, Fujitsu Network Communications recommends use of a Gigabit Passive Optical Network (GPON) for single family units, multi-dwelling units and for small to medium businesses. Large businesses are expected to require larger capacity and security, therefore, Fujitsu recommends using dedicated 1Gbps GPON using Quality of Service features built in the system for large businesses in the first phase. The system is fully capable to be upgraded to dedicated switched Ethernet and Active Ethernet service if required in future phases Both GPON and Active Ethernet designs incorporate the same type of FTTx electronics system . Figure below illustrates the connectivity planned for CBEC build. The information was compiled with the assistance of Fujitsu Network Communications past experience with Cooperative input regarding the current and future phases. The network will have access to Mid-Atlantic Broadband Communities Corporation (MBC) for access to RichWebb/PixelFactory to reach the internet. The assets that currently exists belong to MBC and RichWebb/PixelFactory. The grant and Craig-Botetourt's contribution would be constructing all assets from the ONT to the intersection with MBC facilities.

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 proposed project is at final design. We have started working with potential construction vendors to make them aware of our efforts to construct this project. Once we have contract execution with DHCD, we expect the project to be completed within eight months. The proposed project will be built with Craig-Botetourt's existing infrastructure and right-of -ways. Over the past four years, Craig-Botetourt has focused on pole inspections and pole replacements within its electric distribution system. Based on familiarity of the proposed project area, we expect there to be minimal make-ready work. With the County's support, we do not expect the local permitting process to be a barrier causing delays to the construction of the project.

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-

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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:**

The total project cost is \$1,966,997. The applicants are requesting \$758,998 which is 38.59% of total project cost from the VATI program. The applicant, Botetourt County is contributing \$220,000, which is made up of \$200,000 in cash and \$20,000 in assistance with data collection and waiving of county permits/fees. The co-applicant, Craig-Botetourt Electric Cooperative is contributing a total of \$987,999 to the project cost. The breakdown of the Cooperative's support is \$920,678 in cash and \$67,321 in salary expense to be used during the construction of the project.

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.

**Answer:**

Name	Title	Project Role	Project Responsibilities
Shawn Hildebrand	CEO, Craig-Botetourt Electric Cooperative	Project Manager	Overall manager of project
Jeff Ahearn	Manager of Electric Distribution Services, Craig-Botetourt Electric Cooperative	Construction Coordinator	Coordinates construction of fiber facilities with Fujitsu
Ann Bostic	Manager of Accounting, Craig-Botetourt Electric Cooperative	Grant Accounting	Tracks grant expenses and prepares reports
Mary Ann Gober	Cooperative Services Associate, Craig-Botetourt Electric Cooperative	Administrative	Performs administrative tasks as necessary
Mitch Drake	Broadband Executive Engagement Leader, Fujitsu	Construction Collaborator	Constructs fiber facilities
Jim Whitten	Capital Projects Manager, Botetourt County	Permit Coordinator	Obtains necessary permits and serves as liaison with Botetourt County
Dave Keller	Vice President of Sales & Business Development, Mid-Atlantic Broadband Communities Corporation	Construction Collaborator	Coordinates access to fiber backbone
Mark Lea	RichWebb/Pixel Factory	Access Lead	Coordinates internet access

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.



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- 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:**

The local government applicant is Botetourt county with Craig-Botetourt Electric Cooperative serving as the co-applicant.

Botetourt county is supporting the project in the following ways:

- 1.) A up front cash investment of \$200,000.
- 2.) Securing all needed state and local permits.
- 3.) Waive all local permit fees.
- 4.) Consulting value of \$20,000.

Craig-Botetourt Electric Cooperative's board of directors has agreed to match grant funds awarded to the Cooperative for Phase 1 up to \$2 million. Attached is a resolution from the Cooperative's board of directors and an excerpt from the approved board meeting minutes from August 2018

## 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:**

The grant funds will be used for the equipment and construction costs for this project. As detailed in the derivation of cost file, the grant funds will specifically be used for the building of underground and overhead portion of the fiber system. The underground portion of VATI funds is \$413,687 and the overhead portion is \$345,311. There is a pdf file attached named specificvaticostbreak.pdf, which has all of the specific information regarding the VATI portion of the project, along with the assumptions made to determine the cost.

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:**

The applicants are requesting \$758,998 from VATI. Our fiber build will pass 621 homes. This equates to \$1,222.22 per home passed.

We will be providing 50Mgpps and 100Mgpps. We will quote 1Gbps service as requested.

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:**

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Craig-Botetourt Electric Cooperative is a USDA Rural Utility Service borrower. We currently have over \$15 million in outstanding debt with RUS. For every capitalized investment to plant, we have to provide a detailed report to RUS each month. We are responsible for tracking the loan funds used on each project and have to submit a report, accounting for how the money was spent. In summary, we are extensively familiar with work order procedures and reconciliation of government funds expenditures to specific projects.

The Cooperative is currently working with TrueNet Communications for the engineering of our project. Once we go to build, Fujitsu Network Communications we be constructing the broadband facilities.

## 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:

The internet service offerings that will be provided after the completion of this project include the following:

#### Residential

50mGb	\$59.95
100mGb	\$74.95

#### Commercial

50mGb	\$89.95
100mGb	\$129.95

All service is symmetrical with no data caps.

The Cooperative will quote 1gig service as requested.

VOIP Phone Service with internet	\$29.95
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VOIP Phone Service without internet	\$39.95
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\*Note: Phone service includes unlimited local and long distance service.

Video will also be available for \$49.95.

## 19. Additional Information

Any other equitable factor that the applicant desires to include.

### Answer:

Botetourt county is not part of the Virginia Tobacco Region Revitalization Region so we do not have access to funding from that organization. Other electric cooperatives have been able to draw from those funds.

Craig-Botetourt Electric Cooperative is none for providing service to our communities, to be able to expand those services to broadband.

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*One of the attached files for the application is over 100 letters of support from citizens who live in the proposed project area.*

Craig-Botetourt Electric Cooperative is a member/customer owned electric distribution utility licensed to provide electric service in Virginia and West Virginia. We serve 7,204 meters in Allegheny, Botetourt, Craig, Giles, Montgomery and Roanoke counties in Virginia. We also serve Monroe county in West Virginia. We are one of twelve electric cooperatives in Virginia. Craig-Botetourt is the smallest with the lowest density measured in member/customers per mile of line.

The Cooperative was chartered in August of 1936. It was created under the Rural Electrification Act for providing electric service to rural areas. We are not only overseen by the Virginia State Corporation Commission but also the West Virginia Public Service Commission. We are also administrated by the U.S. Department of Agriculture (USDA), the Rural Utilities Service (RUS). As of October 31, 2018, the Cooperative had a total utility plant of \$40.3 million. We have annual electric distribution sales of \$12 to \$12.5 million. We currently borrow from three different organizations Rural Utilities Service, National Rural Utilities Cooperative Finance Corporation and CoBank. The Cooperative is governed by a six-member elected board of directors and managed by a CEO who reports to the board.

What is Craig-Botetourt Electric Cooperative and Botetourt county trying to accomplish with the Virginia Telecommunications Initiative grant?

With the grant, we will provide fiber based broadband service to an area that has 621 homes, which includes 56 businesses. The service will allow for the Cooperative to offer broadband, phone and television programming. Broadband will allow for people in this area to have access to high speed broadband service. Some of the uses for this service are educational, home based businesses, telemedicine and overall communication.

Why is Craig-Botetourt and Botetourt county applying for these funds?

We are applying for these funds because without the assistance this area would go without adequate broadband service. This area is rural and does not have the density to offer a substantial payback on an investment for other for profit internet service providers. The Cooperative is a not for profit entity that focuses on providing service to areas that otherwise would not receive that service. In this case, the service is broadband. Craig-Botetourt has experience in providing service on this basis. We were formed to provide electricity to rural areas when other for-profit utilities could/would not provide it.

Why are we looking to provide service to this project area of Botetourt county?

This project area has several key attributes to providing broadband service. First, it is considered unserved by the grant guidelines and the FCC. Second, the area has availability to Mid Atlantic Broadband Communities Corporation (MBC). The Cooperative has communicated with MBC regarding this project and have established the approximate location of the interconnection point. Third, the project will help make the area more attractive for future residential development. Craig-Botetourt Electric Cooperative has one of the highest retail rates for electric service in Virginia. It is because of the number of customers we have per mile of line. We have only 5.2 meters per mile of line. It costs us the same to build a mile as compared to other utilities in the state. Making our service

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territory more attractive for development will increase the number of meters per mile of line and the energy sales. Having more sales will help stabilize electric rates everyone pays for electricity provided by the Cooperative. This project could impact not only the customers receiving broadband service but all 7,204 Craig-Botetourt members/customers would indirectly benefit. Finally, the project would help establish Smart Grid communications between the Cooperative's facilities creating a more reliable power service to our customer/member.

Who are the partners that the Cooperative will be working with for this project and what are their roles?

We are working with the following organizations;

- 1.) Fujitsu Network Communications, Inc. – Fujitsu will be performing or assisting with the following tasks;
  - a.) Design and engineering of the project.
  - b.) Managing the construction of the project.
- 2.) Mid-Atlantic Broadband Communities Corporation (MBC) – Will provide the Cooperative access to get the information from the proposed project area to the data center, RichWebb.
- 3.) RichWebb – is the data center located in Ashland, Virginia which will provide access to the internet.
- 4.) Roanoke Valley Broadband Authority – is a regional partner for broadband services.
- 5.) Momentum Voice and Data Services – provide customer, billing and technical support to the project.

## **Attachments:**

Derivation of Cost (Project Budget)

CBECVATIDerivationofCostsWorksheet12142018658351214201875725.xlsx

Project Management Plan

ProjectManagementPlanCBECVATI1213201883916.xlsx

Supporting documentation for costs estimates

SupportDocCostEstimates1214201882251.pdf

Map(s) of project area, including proposed infrastructure

CBECinfrastructureareafinal12112018121200.pdf

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

CBECP1Overlap0021213201835636.pdf

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

181212BotetourtProjectsupportletter1213201884203.pdf

Two most recent Form 477 submitted to FCC

CraigBotetourtElectricCooperativeFinancialInformation124201825623.pdf

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

BOCOCBECInKindCont1214201874418.pdf

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

FujitsuOSPBuildandAccessElectronicsQuoteforCBECv41214201865749.docx

Documentation of source of match funding

BOCOMinutesResolutionDoc1214201870840.pdf

Documentation that proposed project area is unserved based on VATI criteria

CBECP1VATI1213201865829.pdf

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

CAFInfoMemo12132018100404.pdf

Funding Sources Table

CBECVATIFundingSourcesTableFinal121120181203052121320183321731214201870629.docx

(Optional) || Proof of public notice

CBECVATIgrantnoticeproof123201813135.pdf

(Optional) || CBEC Miles Layout

CBECmileslayout1214201885430.pdf

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(Optional) || VATI Project Budget and Cost Appropriateness

specficvaticostbreak1214201883553.pdf

## Notes:

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CDBG Derivation of Cost

Product		Total	VATI	Non-VATI	Source of Estimate	Date
<b>Engineering Costs</b>						
	Infrastructure Design	\$ 17,102	\$ -	\$ 17,102	Fujitsu Network Communications	12/10/2018
	Field Engineering CRO	\$ 27,364	\$ -	\$ 27,364	Fujitsu Network Communications	12/10/2018
	CAD/Drafting/Design updates	\$ 10,261	\$ -	\$ 10,261	Fujitsu Network Communications	12/10/2018
	Standard Permitting and ROW	\$ 2,972	\$ -	\$ 2,972	Fujitsu Network Communications	12/10/2018
	Asbuilding	\$ 6,841	\$ -	\$ 6,841	Fujitsu Network Communications	12/10/2018
<b>Underground Construction (Associated underground footage is 92,002 feet):</b>						
	Trench standard conditions	\$ 167,513	\$ 167,513	\$ -	Fujitsu Network Communications	12/10/2018
	Directional drilling standard conditions	\$ 10,190	\$ 10,190	\$ -	Fujitsu Network Communications	12/10/2018
	Pulling fiber	\$ 59,530	\$ 59,530	\$ -	Fujitsu Network Communications	12/10/2018
	Installing Medium Vault (base 24" x 38")	\$ 101,599	\$ 101,599	\$ -	Fujitsu Network Communications	12/10/2018
	Installing Large Vault (base 36" x 48")/LCP cabinet	\$ 9,692	\$ 9,692	\$ -	Fujitsu Network Communications	12/10/2018
	Installing conduit	\$ 22,704	\$ 22,704	\$ -	Fujitsu Network Communications	12/10/2018
	Rock adder	\$ 42,459	\$ 42,459	\$ -	Fujitsu Network Communications	12/10/2018
<b>Aerial Construction (Associated overhead footage is 278,583 feet):</b>						
	Place ADSS cable	\$ 474,140	\$ 333,428	\$ 140,712	Fujitsu Network Communications	12/10/2018
	Install riser	\$ 11,883	\$ 11,883	\$ -	Fujitsu Network Communications	12/10/2018
<b>Splicing</b>						
	Prep of Medium Fiber Optic Splice Closure	\$ 184,692	\$ -	\$ 184,692	Fujitsu Network Communications	12/10/2018
	Prep of Large Fiber Optic Splice Closure	\$ 27,764	\$ -	\$ 27,764	Fujitsu Network Communications	12/10/2018
	Prep of a cabinet and all fibers terminating at cabinet	\$ 19,383	\$ -	\$ 19,383	Fujitsu Network Communications	12/10/2018
	Prep of Fiber Termination Panel	\$ 4,430	\$ -	\$ 4,430	Fujitsu Network Communications	12/10/2018
	Splice 1-36 fibers	\$ 19,400	\$ -	\$ 19,400	Fujitsu Network Communications	12/10/2018
	Splice 37-96 fibers	\$ 9,576	\$ -	\$ 9,576	Fujitsu Network Communications	12/10/2018
	Splice 97-432 fiber	\$ 12,983	\$ -	\$ 12,983	Fujitsu Network Communications	12/10/2018
	Test fiber	\$ 5,494	\$ -	\$ 5,494	Fujitsu Network Communications	12/10/2018
<b>Drop Installation</b>						
	Placement of Optical Network Terminal (ONT)	\$ 28,105	\$ -	\$ 28,105	Fujitsu Network Communications	12/10/2018
	Placement of fiber optic patch cord in hut or cabinet	\$ 5,996	\$ -	\$ 5,996	Fujitsu Network Communications	12/10/2018
	Placement of residential drop conduit at a 12 inch depth	\$ 43,726	\$ -	\$ 43,726	Fujitsu Network Communications	12/10/2018
	Placement of residential drop fiber in drop conduit	\$ 24,189	\$ -	\$ 24,189	Fujitsu Network Communications	12/10/2018
	Placement of aerial drop fiber for residential	\$ 123,990	\$ -	\$ 123,990	Fujitsu Network Communications	12/10/2018
	Placement of 1.25 inch conduit to facilitate joint drop conduit 12" depth	\$ 161,388	\$ -	\$ 161,388	Fujitsu Network Communications	12/10/2018
<b>Electronics (see electronics tab in spreadsheet for detail)</b>						
	Calix systems	\$ 49,615	\$ -	\$ 49,615	Fujitsu Network Communications	12/10/2018

CDBG Derivation of Cost

	Home electronics	\$ 148,190	\$ -	\$ 148,190	Fujitsu Network Communications	12/10/2018
<b>Other</b>						
	Make Ready Engineering includes Pole Data Collection	\$ 36,505	\$ -	\$ 36,505	Fujitsu Network Communications	12/10/2018
<b>Project Management Labor</b>						
		\$ 67,321	\$ -	\$ 67,321	Craig-Botetourt	12/14/2018
<b>Consulting</b>						
		\$ 20,000	\$ -	\$ 20,000	Botetourt County	12/12/2018
<b>Permit Fees</b>						
		\$ 10,000		\$ 10,000	Botetourt County	12/12/2018
<b>Totals</b>						
		\$ 1,966,997	\$ 758,998	\$ 1,207,999		



Total Number of Households  
 Number of medium/large business units (number if applicable)  
 Number of medium/large business units (% if applicable)  
 XGPON 10GE large Business/Entities  
 switched Ethernet based customers  
  
 Subscribers (take rate)  
 GPON ratio 1:N

	621
0	0
0%	0
	0
	0
65.4%	406
32	

<b>CO Electronics</b>	<b>Units Qty</b>	<b>Unit Price</b>	<b>Extended Price</b>
<b>Number of OLT Chassis Systems (Calix)</b>			
E9-2 System Package (1 x Shelf, 4 x Fans, 1 x Installation Kit)	2	\$942	\$1,884
2xQSFP28, 8xSFP+, 2xSFP)	2	\$10,013	\$20,026
passive	8	\$536	\$4,288
E9-2 GP1601 line card (2xQSFP28, 16xGPON OIM ports)	1	\$14,373	\$14,373
temp	2	\$706	\$1,412
Transceiver, C-Temp, AXOS	16	\$477	\$7,632
<b>Home Electronics</b>			
716GE ONT, 2 POTS, 4 GE -CE (outdoor ONT)	406	\$294	\$119,364
UPS SFU CYBP27U Indoor 12V 7.2AH 24W - 2- prong Type A Floating	406	\$59	\$23,954
SFU ONT Power Cord, 7 pin CYBR UPS to ONT Un-terminated, 5 ft	406	\$12	\$4,872
<b>TOTAL</b>			<b>\$197,805</b>

Material Item	Material Description	Total
144f AER Cable	144 Fiber Dielectric OSP Cable	85,123
144f UG Cable	144 Fiber Metallic OSP Cable	297
96f AER Cable	96 Fiber Dielectric OSP Cable	51,600
96f UG Cable	96 Fiber Metallic OSP Cable	8,192
48 AER		1,791
48 UG		7,764
24 AER		41,675
24 UG		13,308
2f AER Drop	2 Fiber Dielectric OSP Drop	278,169
2f UG Drop	2 Fiber Metallic OSP Drop	247,259
Route UG	Underground Route	92,002
Route AER	Aerial Route	278,583
Handhole - Large		7
Handhole - Medium	Handhole - Medium	82
Handhole - Drop		177
Splice Closures Med w/ Terminal	MST 4 port	348
Splice Closures Med	Medium Splice Closure	47
1.25" Duct <b>with Cable</b>	1.25" Duct Conduit	29,998
1.25" Duct <b>Drop only</b>	1.25" Duct Conduit	62,004
Aerial Path with ADSS Cable		180,189
Aerial Path with Drops		98,743
Pole number		1,130
288 LCP Cabinet	LCP Cabinet that houses optical splitters	4
Splitters		23



Task ID	Task Name	Duration	Start Date	Finish Date
1	Finalize VATI Bid award	3 days	1-May	3-May
2	Common Architectural Playbook (CAP) presented to CBEC for approval	2 days	6-May	7-May
<b>3 High-Level Design Created</b>		<b>22 days</b>	<b>8-May</b>	<b>6-Jun</b>
4	Basemap creation with additional data	1 day	8-May	8-May
5	Service locations added	1 day	9-May	9-May
6	Configuration of software and test performed to ensure outputs correctly	10 days	10-May	23-May
7	Templates created for permit drawings, ready for construction drawing	10 days	24-May	6-Jun
8	Preliminary designs given to Field Engineers for review	1 day	10-May	10-May
9	Bid package creation for network electronics	15 days	8-May	28-May
10	Bid award to electronics vendor	25 days	29-May	2-Jul
11	Bid package created for construction services of network	25 days	6-May	7-Jun
12	Bid awarded to construction and materials vendors	10 days	10-Jun	21-Jun
<b>13 CBEC Phase 1 Construction</b>		<b>118 days</b>	<b>13-May</b>	<b>23-Oct</b>
14	Construction rideouts	15 days	13-May	31-May
15	Make ready engineering	41 days	13-May	8-Jul
16	Details of poles are collected using IKEGPS	15 days	13-May	31-May
17	Make ready engineering evaluated for placement of new attachment	20 days	16-May	12-Jun
18	Make ready engineering turned in to CBEC for approval	30 days	28-May	8-Jul
<b>19 Detailed Design Complete</b>		<b>38 days</b>	<b>4-Jun</b>	<b>25-Jul</b>
20	Constructibility rideout notes incorporated back into design	25 days	4-Jun	8-Jul
21	Ready for construction drawings created	25 days	7-Jun	11-Jul
22	Permit drawings created	35 days	7-Jun	25-Jul
23	Splice sheets created	25 days	7-Jun	11-Jul
24	Bill of materials finalized	25 days	7-Jun	11-Jul
<b>25 Make Ready Construction</b>		<b>15 days</b>	<b>11-Jun</b>	<b>1-Jul</b>
<b>26 Construction of OSP facility</b>		<b>98 days</b>	<b>10-Jun</b>	<b>23-Oct</b>
27	ADSS cable placement	60 days	2-Jul	23-Sep
28	Riser placement	25 days	4-Jul	7-Aug
29	UG construction conduit placement	39 days	15-Jul	5-Sep
30	Vault placement	45 days	22-Jul	20-Sep
31	Restoration	13 days	6-Sep	24-Sep
32	Splicing	45 days	23-Jul	23-Sep
33	Telecom shelter placement	45 days	10-Jun	9-Aug
34	Site racks and equipment installed	15 days	12-Aug	30-Aug
35	Test and turn over of the OSP facility	10 days	24-Sep	7-Oct
36	Test and turn over of entire data network	12 days	8-Oct	23-Oct

Fujitsu Network Communications was asked to develop preliminary outside plant (OSP) build and access electronics pricing for Craig-Botetourt Electrical Cooperative (CBEC). The scope of the pricing quote is bound by the following parameters:

Total number of addresses within the project area	<b>621</b>	
Addresses requiring drop fiber placement	<b>406</b>	
Total route miles (feet) contained within the project	<b>370,585 ft (70 miles)</b>	
Percentage of constructed feet Overhead vs. Underground	<u>OH</u> <b>278,583 ft (75%)</b>	<u>UG</u> <b>92,002 ft (25%)</b>
Number of utility poles	<b>1130</b>	
Average length of service drop in design	<b>847</b>	
Percentage of rock on buried construction	<b>10%</b>	
Subscriber take rate	<b>65.4% (406)</b>	

### Pricing

Per the above parameters agreed upon by Fujitsu and CBEC, the following preliminary price quote is extended for 90 days from receipt.

More detailed pricing information can be found in Attachments A and B.

Preliminary Scope of Services Category	Price
Preliminary OSP Build	\$ 1,671,870
Preliminary Access Electronics	\$ 197,805
<b>Total Price</b>	<b>\$1,869,675</b>

### Caveats

Fujitsu provides this services quote for the purpose of CBEC filing the VADI Grant application.

Final pricing is contingent upon: a) final design completion, b) engineering walkout to address make-ready, c) verification of local labor prices, d) project management and e) approval of required permits.

Prices are subject to change based on the above.

## Attachment A: OSP Build Preliminary Quote Estimated Quantities and Labor Pricing for CBEC

1. The Project will be broke down into 5 catagories: Engineering, Underground construction, Aerial construction, Splicing and Installation
2. The "Other" table beginning at line 74, may be used for any items essential to your completing the project that were not in the main table.
3. Prelim BOM tab contains additional information with regards to design

4  
5 **Project Assumptions or Cost Factors**

6	1. The total number of addresses with in the Project area	621			
7	2. Addresses that need drop fiber placed	406			
8	3. The total route contained within the project	370,585		70	Miles
9	4. The percentage of constructed feet Aerial vs. Undergr	OH %	OH	UG feet	UG %
10		75%	278,583	92,002	25%
11	5. Number of Utility Poles	1130			
12	6. Average length of service drop in design	846			
13	7. Percentage of rock on buried construction	10%			

14	15	Item Description	Unit of Measure	Units	Labor Unit Price	Extened Labor	Material Price
17		<b>Engineering</b>					
18		Infrastructure Design	Ft	370,585	\$ 0.046	\$ 17,102.50	
19		Field Engineering CRO	Ft	370,585	\$ 0.074	\$ 27,364.00	
20		CAD/Drafting/Design updates	Ft	370,585	\$ 0.028	\$ 10,261.50	
21		Standard Permitting and ROW	Ft	92,002	\$ 0.032	\$ 2,972.12	
22		Asbulting	Ft	370,585	\$ 0.018	\$ 6,841.00	
23		Total Engineering				\$ 64,541.12	\$ -
24		<b>Underground Construction</b>		Total UG Foota	92,002		
25		Trench standard conditions	Ft	29,998	\$ 5.584	\$ 167,513.33	\$ -
26		Directional drilling standard conditions	Ft	920	\$ 11.076	\$ 10,190.14	
27		Pulling fiber	Ft	29,998	\$ 0.785	\$ 23,534.93	\$ 35,994.60
28		Installing Medium Vault (base 24" x 38")	Ea	259	\$ 253.825	\$ 65,740.68	\$ 35,858.55
29		Installing Large Vault (base 36" x 48")/LCP cabinet	Ea	7	\$ 923.000	\$ 6,461.00	\$ 3,230.50
30		Installing conduit	Ft	29,998.00	\$ 0.462	\$ 13,844.08	\$ 8,860.21
31		Rock adder	Ft	9,200	\$ 4.615	\$ 42,458.92	\$ -
32		Total Underground Construction				\$ 329,743.08	\$ 83,943.86
33		<b>Aerial Construction</b>		Total OH Foota	278,583.00		
34		Place ADSS cable	Ft	180,189	\$ 1.293	\$ 232,984.38	\$ 241,155.95
35		Install riser	Ea	82	\$ 69.225	\$ 5,676.45	\$ 6,206.25
36		Total Aerial Construction				\$ 238,660.83	\$ 247,362.20

37	<b>Splicing</b>					
38	Prep of Medium Fiber Optic Splice Closure	Ea	348	\$ 138,450	\$ 48,180.60	\$ 136,511.70
39	Prep of Large Fiber Optic Splice Closure	Ea	47	\$ 230,750	\$ 10,845.25	\$ 16,918.59
40	Prep of a cabinet and all fibers terminating at cabinet	Ea	4	\$ 230,750	\$ 923.00	\$ 18,460.00
41	Prep of Fiber Termination Panel	Ea	4	\$ 184,600	\$ 738.40	\$ 3,692.00
42	Splice 1-36 fibers	Ea	1,040	\$ 18,460	\$ 19,198.40	\$ 201.58
43	Splice 37-96 fibers	Ea	640	\$ 14,768	\$ 9,451.52	\$ 124.05
44	Splice 97-432 fiber	Ea	1,152	\$ 11,076	\$ 12,759.55	\$ 223.29
45	Test fiber	Ea	744	\$ 7,384	\$ 5,493.70	\$ -
46	Total Splicing				\$ 107,590.42	\$ 176,131.22
47	<b>Drop Installation</b>					
48	Placement of Optical Network Terminal (ONT)	Ea	406	\$ 41,535	\$ 16,863.21	\$ 11,242.14
49	Placement of fiber optic patch cord in hut or cabinet	Ea	406	\$ 10,153	\$ 4,122.12	\$ 1,873.69
50	Placement of residential drop conduit at a 12 inch depth	Ea	101	\$ 276,900	\$ 27,909.91	\$ 15,815.62
51	Placement of residential drop fiber in drop conduit	Ea	101	\$ 138,450	\$ 13,954.95	\$ 10,233.63
	Placement of aerial drop fiber for residential	Ea	306	\$ 323,050	\$ 98,853.30	\$ 25,136.98
52	Placement of 1.25 inch conduit to facilitate joint drop co	Ea	62,004	\$ 2,308	\$ 143,074.23	\$ 18,313.50
53	Total Drop Installation				\$ 304,777.72	\$ 82,615.56
55	<b>Other</b>					
56	Make Ready Engineering includes Pole Data Collection	Ea	1130	\$ 32,305	\$ 36,504.65	
57				\$ -		
58	Total Other				\$ 36,504.65	\$ -

		Labor	Materials
59	Total Engineering Costs	\$ 64,541.12	\$ -
60	Total Underground construction Co	\$ 329,743.08	\$ 83,943.86
61	Total Aerial Construction Costs	\$ 238,660.83	\$ 247,362.20
62	Total Splicing Costs	\$ 107,590.42	\$ 176,131.22
63	Total Drop Inst.	\$ 304,777.72	\$ 82,615.56
64	Total Other Costs	\$ 36,504.65	\$ -
65	<b>Total OSP Project Costs</b>	<b>\$ 1,081,817.81</b>	<b>\$ 590,052.84</b>

67 OSP Labor \$ 1,081,817.81  
 68 OSP Materials \$ 590,052.84  
 69 **Total OSP Project costs \$ 1,671,870.65**

**Assumptions**

- 1 No make ready construction costs included with estimated pricing
- 2 Aerial ADSS cable placement labor price reduced by 20 % per direction of CBEC, actual labor unit pricing at time of RFP will be used when completing
- 3 Per CBEC removed all 1.25" drop duct until drops are placed as needed
- 4 ADSS cable priced at \$1.20 per foot for an average price.
- 5 Aerial hardware placed at \$.14 foot (approximately \$43 per pole for hardware)

### Attachment B: Access Electronics Quote

Total Number of Households  
 Number of medium/large business units (number if applicable)  
 Number of medium/large business units (% if applicable)  
 XGPON 10GE large Business/Entities  
 switched Ethernet based customers  
 Subscribers (take rate)  
 GPON ratio 1:N

	621
0	0
0%	0
	0
	0
65.4%	406
32	

Access Electronics	Units Qty	Unit Price	Extended Price
<b>Number of OLT Chassis Systems (Calix)</b>			
E9-2 System Package (1 x Shelf, 4 x Fans, 1 x Installation Kit)	2	\$942	\$1,884
E9-2 CLX3001 Aggregation and Common Control Card (4xCDFP, 2xQSFP28, 8xSFP+, 2xSFP)	2	\$10,013	\$20,026
CDFP to 4 x 100GE QSFP28 Direct Attach Breakout Cable (DAC), 3m, passive	8	\$536	\$4,288
E9-2 GP1601 line card (2xQSFP28, 16xGPON OIM ports)	1	\$14,373	\$14,373
10GE SFP+, Single Mode dual fiber transceiver, 10Km, 1310nm, LC, I-temp	2	\$706	\$1,412
GPON SFP OIM, Class B+, 20Km, 1490/1310nm Single Fiber Transceiver, C-Temp, AXOS	16	\$477	\$7,632
<b>Home Electronics</b>			
716GE ONT, 2 POTS, 4 GE -CE (outdoor ONT)	406	\$294	\$119,364
UPS SFU CYBP27U Indoor 12V 7.2AH 24W - 2- prong Type A Floating	406	\$59	\$23,954
SFU ONT Power Cord, 7 pin CYBR UPS to ONT Un-terminated, 5 ft	406	\$12	\$4,872
<b>TOTAL</b>			<b>\$197,805</b>



Craig Botetourt Electric Cooperative  
Calculation of in kind contribution  
Project Management

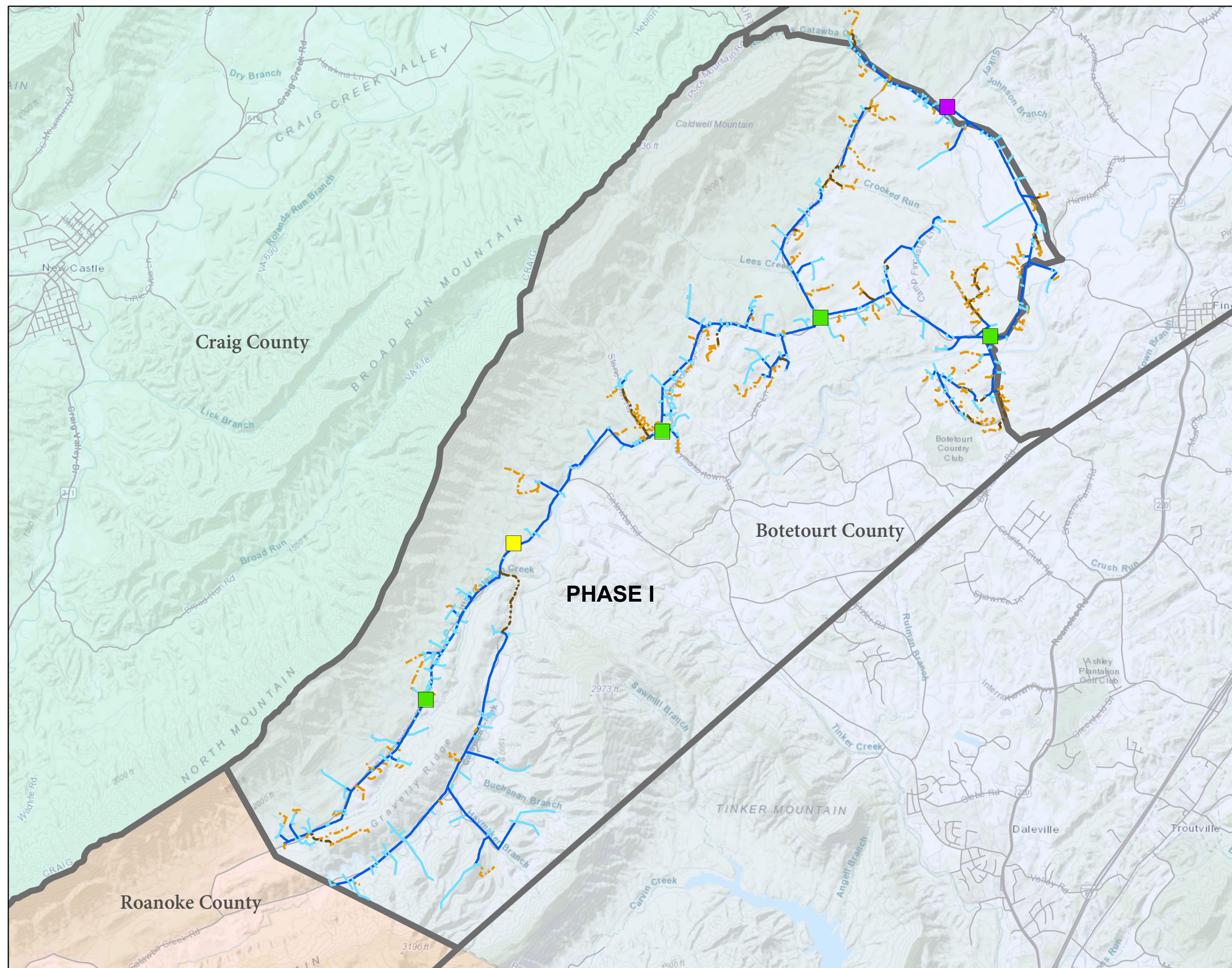
	# Hours:	Hourly wage:	Employee wage:
Shawn Hildebrand	500	\$ 77	\$ 38,461
Jeff Ahearn	500	\$ 49	\$ 24,500
Ann Bostic	100	\$ 38	\$ 3,800
Mary Ann Gober	20	\$ 28	\$ 560
			\$ 67,321

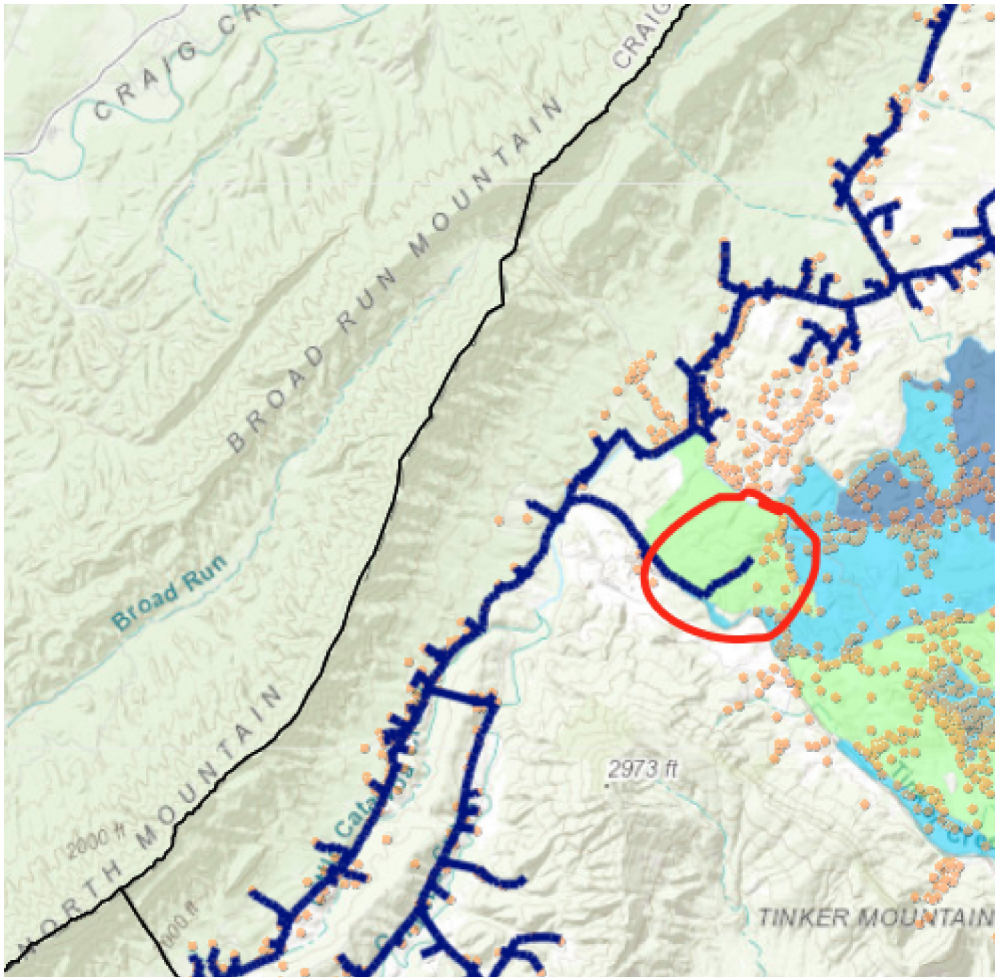
# CBEC PRELIMINARY DESIGN

621 ADDRESSES

- CABINET
- HUT
- INTERCONNECT
- AERIAL, MAIN
- AERIAL, DROP
- UNDERGROUND, DROP
- UNDERGROUND, MAIN

PATH	FEET
Conduit with Cable	29,998
Conduit Drop Only	62,004
ADSS Cable	179,840
Aerial Self Support Drop	98,743







L.W. "Jack" Leffel  
Chairman

Donald M. "Mac" Scothorn  
Vice-Chairman

Steve P. Clinton  
Billy W. Martin, Sr.  
I. Ray Sloan

## Office of the Administrator

1 West Main Street  
Fincastle, Virginia 24090

December 11, 2018

Dr. Tamarah Holmes, Associate Director  
Policy and Strategic Development  
Virginia Department of Housing and Community Development  
Main Street Center  
600 East Main Street, Suite 300  
Richmond, Virginia 23219

Re: Botetourt County funding and partnership support for Craig-Botetourt Electric Cooperative's Virginia Telecommunications Initiative proposal

Dear Dr. Holmes:

Botetourt County is experiencing economic growth and opportunities that require adequate and affordable Internet service to support our businesses and residents. As such, the County has been actively engaged in ways to improve broadband throughout the county during 2018. We formed the Botetourt Broadband Advisory Commission in January to focus on bringing improved broadband to the County. The County conducted a citizen survey in the spring which indicated more than 80 percent of residents and businesses consider Internet access a necessity and believe more needs to be done to meet current and future demand.

Botetourt County hosted a Broadband Summit in September to hear from providers and broadband experts on how the County could improve Internet access. As a result of that initiative, the County hired a consultant to do a comprehensive assessment and identify specific and actionable strategies to improve access and capacity throughout the County. The assessment identified over thirty percent (30%) of Botetourt citizens have no access to fixed (excluding cellular and satellite) Internet service. Almost half

(540) 928-2006  
[GLarrowe@BotetourtVA.gov](mailto:GLarrowe@BotetourtVA.gov)  
[BotetourtVA.gov](http://BotetourtVA.gov)

(47%) of the citizens with Internet access rely upon DSL technology which is limited in speed and capacity. The actionable strategies include a phased geographic plan that is prioritized based on demand.

Craig-Botetourt Electric Coop (CBEC) is proposing to build fiber-to-the-home in 2 of our top 3 priority areas. CBEC's Phase I build (the target of this application) would provide fiber Internet access to over 600 homes including over 50 businesses. The remaining two phases of CBEC's planned build will deliver fiber service to an additional 700 homes including 47 businesses. CBEC's fiber build plan would provide access to almost thirty-percent (30%) of our unserved areas. The County is committed to partnering with CBEC to extend tested fiber to minimum 25/3 service level to the project area. It is the hopes of Botetourt that you will be able to serve as many residents as fiscally possible as soon as possible.

Botetourt County has invested in gathering detailed data and setting broadband strategies to improve access and capacity. We have shared data and analysis results with CBEC as a partner to them on this grant application - **an estimated value of \$20,000**. Additionally the County is prepared to provide the following assistance contingent upon CBEC securing this grant:

- securing all needed state and local permits;
- waive all local permit fees; and,
- provide up to \$200,000 cash grant over a two FY period for this project.

We look forward to the future with our work with CBEC and the Virginia Department of Housing and Community Development. **This commits Botetourt County to a contribution of \$220,000 toward this project if funded** subject to approval and appropriation from the Board of Supervisors and a performance agreement with Botetourt County EDA. Should you have any questions, please do not hesitate to contact us.

Sincerely yours,



Gary Larrowe  
County Administrator  
Botetourt County, Virginia

Cc: Botetourt County Board of Supervisors  
Botetourt County Economic Development Authority  
Shawn Hildebrand, Craig-Botetourt Electric Cooperative

*Corrected*

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  <b>FINANCIAL AND OPERATING REPORT                  ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION	VA0002
	PERIOD ENDED	December, 2016 (Prepared with Audited Data)
	BORROWER NAME	Craig-Botetourt 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.

Shawn Hildebrand 3/20/2017  
 \_\_\_\_\_ DATE

**PART A. STATEMENT OF OPERATIONS**

ITEM	YEAR-TO-DATE			THIS MONTH
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
1. Operating Revenue and Patronage Capital	12,144,168	12,162,160	12,379,173	1,184,631
2. Power Production Expense				
3. Cost of Purchased Power	6,733,712	6,253,825	6,553,305	602,209
4. Transmission Expense				
5. Regional Market Expense				
6. Distribution Expense - Operation	1,044,759	972,265	987,740	74,359
7. Distribution Expense - Maintenance	1,134,515	1,145,691	1,196,432	79,148
8. Customer Accounts Expense	435,659	464,745	456,636	32,402
9. Customer Service and Informational Expense	70,550	71,106	70,008	4,055
10. Sales Expense				
11. Administrative and General Expense	859,123	899,477	1,034,436	110,372
12. Total Operation & Maintenance Expense (2 thru 11)	10,278,318	9,807,109	10,298,557	902,545
13. Depreciation and Amortization Expense	1,048,306	999,169	1,047,744	87,821
14. Tax Expense - Property & Gross Receipts				
15. Tax Expense - Other	14,149	10,896	13,500	471
16. Interest on Long-Term Debt	810,903	791,189	786,216	68,256
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	3,372	4,950	5,004	287
19. Other Deductions				
20. Total Cost of Electric Service (12 thru 19)	12,155,048	11,613,313	12,151,021	1,059,380
21. Patronage Capital & Operating Margins (1 minus 20)	(10,880)	548,847	228,152	125,251
22. Non Operating Margins - Interest	68,790	83,013	70,810	16,566
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	1,198	5,292	1,500	49
26. Generation and Transmission Capital Credits				
27. Other Capital Credits and Patronage Dividends	29,116	20,528	30,000	
28. Extraordinary Items	(639,586)			
29. Patronage Capital or Margins (21 thru 28)	(551,362)	657,680	330,462	141,866

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT</b> <b>ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION  VA0002
INSTRUCTIONS - See help in the online application.	PERIOD ENDED  December, 2016

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	63	65	5. Miles Transmission		
2. Services Retired	31	18	6. Miles Distribution - Overhead	1,159.00	1,160.00
3. Total Services in Place	7,542	7,578	7. Miles Distribution - Underground	216.00	223.00
4. Idle Services (Exclude Seasonals)	416	417	8. Total Miles Energized (5 + 6 + 7)	1,375.00	1,383.00

PART C. BALANCE SHEET					
ASSETS AND OTHER DEBITS			LIABILITIES AND OTHER CREDITS		
1. Total Utility Plant in Service	37,146,372		30. Memberships	30,435	
2. Construction Work in Progress	208,472		31. Patronage Capital	11,872,702	
3. Total Utility Plant (1 + 2)	37,354,844		32. Operating Margins - Prior Years	0	
4. Accum. Provision for Depreciation and Amort.	11,052,107		33. Operating Margins - Current Year	547,911	
5. Net Utility Plant (3 - 4)	26,302,737		34. Non-Operating Margins	8,617	
6. Non-Utility Property (Net)	10,126		35. Other Margins and Equities	82,508	
7. Investments in Subsidiary Companies	0		36. Total Margins & Equities (30 thru 35)	12,542,173	
8. Invest. in Assoc. Org. - Patronage Capital	141,319		37. Long-Term Debt - RUS (Net)	684,025	
9. Invest. in Assoc. Org. - Other - General Funds	0		38. Long-Term Debt - FFB - RUS Guaranteed	12,762,679	
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	378,266		39. Long-Term Debt - Other - RUS Guaranteed	0	
11. Investments in Economic Development Projects	0		40. Long-Term Debt Other (Net)	2,607,010	
12. Other Investments	124,034		41. Long-Term Debt - RUS - Econ. Devel. (Net)	0	
13. Special Funds	0		42. Payments - Unapplied	1,269,045	
14. Total Other Property & Investments (6 thru 13)	653,745		43. Total Long-Term Debt (37 thru 41 - 42)	14,784,669	
15. Cash - General Funds	369,337		44. Obligations Under Capital Leases - Noncurrent	135,577	
16. Cash - Construction Funds - Trustee	2		45. Accumulated Operating Provisions and Asset Retirement Obligations	0	
17. Special Deposits	0		46. Total Other Noncurrent Liabilities (44 + 45)	135,577	
18. Temporary Investments	0		47. Notes Payable	0	
19. Notes Receivable (Net)	0		48. Accounts Payable	1,030,358	
20. Accounts Receivable - Sales of Energy (Net)	1,205,624		49. Consumers Deposits	222,451	
21. Accounts Receivable - Other (Net)	105,635		50. Current Maturities Long-Term Debt	698,344	
22. Renewable Energy Credits	0		51. Current Maturities Long-Term Debt - Economic Development	0	
23. Materials and Supplies - Electric & Other	321,747		52. Current Maturities Capital Leases	31,658	
24. Prepayments	119,786		53. Other Current and Accrued Liabilities	420,159	
25. Other Current and Accrued Assets	125,977		54. Total Current & Accrued Liabilities (47 thru 53)	2,402,970	
26. Total Current and Accrued Assets (15 thru 25)	2,248,108		55. Regulatory Liabilities	0	
27. Regulatory Assets	0		56. Other Deferred Credits	85,736	
28. Other Deferred Debits	746,535		57. Total Liabilities and Other Credits (36 + 43 + 46 + 54 thru 56)	29,951,125	
29. Total Assets and Other Debits (5+14+26 thru 28)	29,951,125				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION  VA0002
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2016
<b>PART D. NOTES TO FINANCIAL STATEMENTS</b>	
<p>2016 FORM 7 BEING RESUBMITTED TO CORRECT OUTAGE DATA. PART G WAS THE ONLY THING CHANGED.</p>	



UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION  VA0002
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<b>PART D. CERTIFICATION LOAN DEFAULT NOTES</b>	

UNITED STATES DEPARTMENT OF AGRICULTURE  
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BORROWER DESIGNATION VA0002

**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

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	32,841,696	1,447,627	215,304		34,074,019
2. General Plant	2,092,943	58,964	37,082		2,114,825
3. Headquarters Plant	886,137	9,417			895,554
4. Intangibles	1,273				1,273
5. Transmission Plant	27,637				27,637
6. Regional Transmission and Market Operation Plant					
7. All Other Utility Plant	33,063				33,063
8. Total Utility Plant in Service (1 thru 7)	35,882,749	1,516,008	252,386		37,146,371
9. Construction Work in Progress	251,074	(42,602)			208,472
10. Total Utility Plant (8 + 9)	36,133,823	1,473,406	252,386		37,354,843

**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	290,021	408,133		360,509	15,570	(328)	321,747
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	290.440	355.330	25.290	423.490	1,094.550
2. Five-Year Average	532.430	600.820	32.950	437.350	1,603.550

**PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS**

1. Number of Full Time Employees	22	4. Payroll - Expensed	1,118,543
2. Employee - Hours Worked - Regular Time	47,552	5. Payroll - Capitalized	463,229
3. Employee - Hours Worked - Overtime	2,478	6. Payroll - Other	

**PART I. PATRONAGE CAPITAL**

ITEM	DESCRIPTION	THIS YEAR (a)	CUMULATIVE (b)
1. Capital Credits - Distributions	a. General Retirements	157,436	2,683,454
	b. Special Retirements		32,477
	c. Total Retirements (a + b)	157,436	2,715,931
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	20,528	
	c. Total Cash Received (a + b)	20,528	

**PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE**

1. Amount Due Over 60 Days	\$ 22,872	2. Amount Written Off During Year	\$ 22,752
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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  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION  VA0002
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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	Appalachian Power Company	733			53,548,148	3,912,416	7.31		
2	Dominion Virginia Power	19876			31,493,613	1,620,624	5.15		162,229
3	Southeastern Power Admin	29304			6,959,718	368,441	5.29	(162,229)	
4	*Adjustments	600000				352,343	0.00	352,343	11,429
	Total				92,001,479	6,253,824	6.80	190,114	173,658

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>		BORROWER DESIGNATION  VA0002	
INSTRUCTIONS - See help in the online application		PERIOD ENDED December, 2016	
<b>PART K. kWh PURCHASED AND TOTAL COST</b>			
<b>No</b>	<b>Comments</b>		
1			
2			
3			
4			

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>		BORROWER DESIGNATION VA0002	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2016	
<b>PART L. LONG-TERM LEASES</b>			
<b>No</b>	<b>NAME OF LESSOR (a)</b>	<b>TYPE OF PROPERTY (b)</b>	<b>RENTAL THIS YEAR (c)</b>
	<b>TOTAL</b>		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>		BORROWER DESIGNATION VA0002	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2016	
<b>PART M. ANNUAL MEETING AND BOARD DATA</b>			
1. Date of Last Annual Meeting  6/11/2016	2. Total Number of Members  5,783	3. Number of Members Present at Meeting  35	4. Was Quorum Present?  Y
5. Number of Members Voting by Proxy or Mail  882	6. Total Number of Board Members  6	7. Total Amount of Fees and Expenses for Board Members  \$ 36,200	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 VA0002		
INSTRUCTIONS - See help in the online application.			PERIOD ENDED December, 2016		
<b>PART N. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS</b>					
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)	684,025	36,917	28,666	65,583
2	National Rural Utilities Cooperative Finance Corporation	2,607,010	167,692	348,130	515,822
3	CoBank, ACB				
4	Federal Financing Bank	12,762,679	586,580	323,380	909,960
5	RUS - Economic Development Loans				
6	Payments Unapplied	1,269,045			
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				
10	Farm Credit Leasing	135,577	4,439	31,072	35,511
	<b>TOTAL</b>	<b>14,920,246</b>	<b>795,628</b>	<b>731,248</b>	<b>1,526,876</b>

UNITED STATES DEPARTMENT OF AGRICULTURE  
RURAL UTILITIES SERVICE  
**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION  
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INSTRUCTIONS - See help in the online application.

**PART O. POWER REQUIREMENTS DATABASE - ANNUAL SUMMARY**

CLASSIFICATION	CONSUMER SALES & REVENUE DATA	DECEMBER	AVERAGE NO. CONSUMERS SERVED	TOTAL YEAR TO DATE
		(a)	(b)	(c)
1. Residential Sales (excluding seasonal)	a. No. Consumers Served	5,486	5,471	
	b. kWh Sold			67,987,489
	c. Revenue			9,577,990
2. Residential Sales - Seasonal	a. No. Consumers Served	838	840	
	b. kWh Sold			2,589,475
	c. Revenue			550,508
3. Irrigation Sales	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
4. Comm. and Ind. 1000 KVA or Less	a. No. Consumers Served	711	704	
	b. kWh Sold			4,606,417
	c. Revenue			747,878
5. Comm. and Ind. Over 1000 KVA	a. No. Consumers Served	43	43	
	b. kWh Sold			7,735,142
	c. Revenue			870,763
6. Public Street & Highway Lighting	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
7. Other Sales to Public Authorities	a. No. Consumers Served	83	84	
	b. kWh Sold			734,276
	c. Revenue			112,192
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)		7,161	7,142	
11. Total kWh Sold (lines 1b thru 9b)				83,652,799
12. Total Revenue Received From Sales of Electric Energy (lines 1c thru 9c)				11,859,331
13. Transmission Revenue				
14. Other Electric Revenue				302,829
15. kWh - Own Use				207,211
16. Total kWh Purchased				92,001,479
17. Total kWh Generated				
18. Cost of Purchases and Generation				6,253,825
19. Interchange - kWh - Net				
20. Peak - Sum All kW Input (Metered) Non-coincident <input type="checkbox"/> Coincident <input checked="" type="checkbox"/>				17,710



UNITED STATES DEPARTMENT OF AGRICULTURE  
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**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0002

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 <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						

RUS Financial and Operating Report Electric Distribution

Revision Date 2014

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT</b> <b>ELECTRIC DISTRIBUTION</b> <b>INVESTMENTS, LOAN GUARANTEES AND LOANS</b>	BORROWER DESIGNATION VA0002  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)
<b>1</b>	<b>Non-Utility Property (NET)</b>				
	Non-Utility Property	10,126			
	Totals	10,126			
<b>2</b>	<b>Investments in Associated Organizations</b>				
	Invest Subs CFC Capital Term Cercificates		21,189	2,123	
	Invest VA, MD, DE Assoc Coop	7,400			
	Invest Assoc Org CFC		1,000		
	Invest Capital Term Certificates		268,777		
	Invest Assoc Org CFC Patronage	141,319		7,906	
	Invest Southeastern Data Cooperative	100			
	Invest Southeastern Data Patronage	73,595		3,325	
	Invest NRTC	1,000			
	Invest Assoc Org CoBank Coop	1,000		338	
	Invest Assoc Org CFC Patronage	4,126		239	
	Invest Assoc Org CoBank Patronage	80		258	
	Totals	228,620	290,966	14,189	
<b>4</b>	<b>Other Investments</b>				
	United Utility Supply	99,217			
	Federated Insurance	21,792			
	Arkansas Electric Cooperative	3,025			
	Totals	124,034			
<b>6</b>	<b>Cash - General</b>				
	Cash in Banks - Demand Deposits	368,837			
	Petty Cash	500			
	Cash Construction Fund Trust	2			
	Totals	369,339			
<b>9</b>	<b>Accounts and Notes Receivable - NET</b>				
	Othr Accounts Receivable - FEMA	99,276			
	Accounts Receivable - Employee Hospital Insurance	5,263			
	Accounts Receivable - AFLAC	1,096			
	Totals	105,635			
<b>11</b>	<b>TOTAL INVESTMENTS (1 thru 10)</b>	837,754	290,966	14,189	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT</b> <b>ELECTRIC DISTRIBUTION</b> <b>INVESTMENTS, LOAN GUARANTEES AND LOANS</b>	BORROWER DESIGNATION VA0002  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)
	<b>TOTAL</b>				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT</b> <b>ELECTRIC DISTRIBUTION</b> <b>INVESTMENTS, LOAN GUARANTEES AND LOANS</b>	BORROWER DESIGNATION VA0002
	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]	2.24 %
--	--------

**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				
	<b>TOTAL</b>				

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  
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**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0002

PERIOD ENDED December, 2017 (Prepared with Audited Data)

BORROWER NAME Craig-Botetourt 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.

Shawn Hildebrand

3/27/2018

DATE

**PART A. STATEMENT OF OPERATIONS**

ITEM	YEAR-TO-DATE			THIS MONTH
	LAST YEAR (a)	THIS YEAR (b)	BUDGET (c)	
Operating Revenue and Patronage Capital	12,162,160	11,901,293	12,315,964	1,237,812
Power Production Expense				
3. Cost of Purchased Power	6,253,825	5,810,863	6,282,711	642,374
4. Transmission Expense				
5. Regional Market Expense				
6. Distribution Expense - Operation	972,265	1,002,259	985,348	60,257
7. Distribution Expense - Maintenance	1,145,691	1,245,916	1,326,086	91,054
8. Customer Accounts Expense	464,745	428,040	495,252	20,654
9. Customer Service and Informational Expense	71,106	61,072	75,000	936
10. Sales Expense				
11. Administrative and General Expense	899,477	931,827	1,064,188	136,670
12. Total Operation & Maintenance Expense (2 thru 11)	9,807,109	9,479,977	10,228,585	951,945
13. Depreciation and Amortization Expense	999,169	1,018,104	996,000	104,789
14. Tax Expense - Property & Gross Receipts				
15. Tax Expense - Other	10,896	15,799	15,000	1,022
16. Interest on Long-Term Debt	791,189	816,165	827,252	64,754
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	4,950	5,238	5,040	384
19. Other Deductions				
20. Total Cost of Electric Service (12 thru 19)	11,613,313	11,335,283	12,071,877	1,122,894
21. Patronage Capital & Operating Margins (1 minus 20)	548,847	566,010	244,087	114,918
22. Non Operating Margins - Interest	83,013	167,038	138,335	40,322
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	5,292	15,081	1,500	1,962
26. Generation and Transmission Capital Credits				
27. Other Capital Credits and Patronage Dividends	20,528	22,993	24,700	
Extraordinary Items				
28. Patronage Capital or Margins (21 thru 28)	657,680	771,122	408,622	157,202

UNITED STATES DEPARTMENT OF AGRICULTURE  
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION

BORROWER DESIGNATION

VA0002

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	65	77	5. Miles Transmission		
2. Services Retired	18	57	6. Miles Distribution - Overhead	1,160.00	1,160.00
3. Total Services in Place	7,578	7,598	7. Miles Distribution - Underground	223.00	227.00
4. Idle Services (Exclude Seasonals)	417	424	8. Total Miles Energized (5 + 6 + 7)	1,383.00	1,387.00

PART C. BALANCE SHEET

ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Total Utility Plant in Service	38,655,507	30. Memberships	30,615
2. Construction Work in Progress	369,678	31. Patronage Capital	11,773,379
3. Total Utility Plant (1 + 2)	39,025,185	32. Operating Margins - Prior Years	0
4. Accum. Provision for Depreciation and Amort.	11,753,875	33. Operating Margins - Current Year	589,004
5. Net Utility Plant (3 - 4)	27,271,310	34. Non-Operating Margins	190,736
6. Non-Utility Property (Net)	9,615	35. Other Margins and Equities	238,481
7. Investments in Subsidiary Companies	0	36. Total Margins & Equities (30 thru 35)	12,822,215
8. Invest. in Assoc. Org. - Patronage Capital	148,870	37. Long-Term Debt - RUS (Net)	652,638
9. Invest. in Assoc. Org. - Other - General Funds	0	38. Long-Term Debt - FFB - RUS Guaranteed	14,796,003
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	382,262	39. Long-Term Debt - Other - RUS Guaranteed	0
11. Investments in Economic Development Projects	0	40. Long-Term Debt Other (Net)	2,284,773
12. Other Investments	120,393	41. Long-Term Debt - RUS - Econ. Devel. (Net)	0
Special Funds	0	42. Payments - Unapplied	2,871,937
14. Total Other Property & Investments (6 thru 13)	661,140	43. Total Long-Term Debt (37 thru 41 - 42)	14,861,477
15. Cash - General Funds	606,820	44. Obligations Under Capital Leases - Noncurrent	93,597
16. Cash - Construction Funds - Trustee	2	45. Accumulated Operating Provisions and Asset Retirement Obligations	0
17. Special Deposits	0	46. Total Other Noncurrent Liabilities (44 + 45)	93,597
18. Temporary Investments	0	47. Notes Payable	0
19. Notes Receivable (Net)	0	48. Accounts Payable	1,551,114
20. Accounts Receivable - Sales of Energy (Net)	1,159,162	49. Consumers Deposits	228,255
21. Accounts Receivable - Other (Net)	3,332	50. Current Maturities Long-Term Debt	800,324
22. Renewable Energy Credits	0	51. Current Maturities Long-Term Debt - Economic Development	0
23. Materials and Supplies - Electric & Other	321,162	52. Current Maturities Capital Leases	39,369
24. Prepayments	69,299	53. Other Current and Accrued Liabilities	435,207
25. Other Current and Accrued Assets	268,948	54. Total Current & Accrued Liabilities (47 thru 53)	3,054,269
26. Total Current and Accrued Assets (15 thru 25)	2,428,725	55. Regulatory Liabilities	0
27. Regulatory Assets	0	56. Other Deferred Credits	137,341
28. Other Deferred Debits	607,724	57. Total Liabilities and Other Credits (36 + 43 + 46 + 54 thru 56)	30,968,899
29. Total Assets and Other Debits (5+14+26 thru 28)	30,968,899		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION VA0002
INSTRUCTIONS - See help in the online application.	PERIOD ENDED December, 2017
<b>PART D. NOTES TO FINANCIAL STATEMENTS</b>	

<p style="text-align: center;">UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION</b></p>	<p>BORROWER DESIGNATION  VA0002</p>
<p>INSTRUCTIONS - See help in the online application.</p>	<p>PERIOD ENDED December, 2017</p>
<p><b>PART D. CERTIFICATION LOAN DEFAULT NOTES</b></p>	
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UNITED STATES DEPARTMENT OF AGRICULTURE  
RURAL UTILITIES SERVICE  
**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0002  
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	34,074,019	1,819,771	425,496		35,468,294
2. General Plant	2,114,825	103,468	22,177		2,196,116
3. Headquarters Plant	895,554	33,570			929,124
4. Intangibles	1,273				1,273
5. Transmission Plant	27,637				27,637
6. Regional Transmission and Market Operation Plant					
7. All Other Utility Plant	33,063				33,063
<b>8. Total Utility Plant in Service (1 thru 7)</b>	<b>37,146,371</b>	<b>1,956,809</b>	<b>447,673</b>		<b>38,655,507</b>
9. Construction Work in Progress	208,472	161,206			369,678
<b>10. Total Utility Plant (8 + 9)</b>	<b>37,354,843</b>	<b>2,118,015</b>	<b>447,673</b>		<b>39,025,185</b>

**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	321,747	333,586		303,353	21,771	(9,047)	321,162
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)	
Present Year	157.870	121.900	52.530	696.700	1,029.000
Five-Year Average	212.030	119.170	18.170	409.850	759.220

**PART H. EMPLOYEE-HOUR AND PAYROLL STATISTICS**

1. Number of Full Time Employees	25	4. Payroll - Expensed	1,142,341
2. Employee - Hours Worked - Regular Time	47,212	5. Payroll - Capitalized	493,758
3. Employee - Hours Worked - Overtime	2,232	6. Payroll - Other	

**PART I. PATRONAGE CAPITAL**

ITEM	DESCRIPTION	THIS YEAR (a)	CUMULATIVE (b)
1. Capital Credits - Distributions	a. General Retirements	647,208	3,330,662
	b. Special Retirements		
	c. Total Retirements (a + b)	647,208	3,330,662
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		
	c. Total Cash Received (a + b)		

**PART J. DUE FROM CONSUMERS FOR ELECTRIC SERVICE**

1. Amount Due Over 60 Days	\$ 25,029	2. Amount Written Off During Year	\$ 14,765
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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  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	BORROWER DESIGNATION  VA0002
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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	Appalachian Power Company	733			51,167,108	3,537,895	6.91		
2	Dominion Virginia Power	19876			30,482,380	1,536,331	5.04		118,575
3	Southeastern Power Admin	29304			6,484,957	276,807	4.27	(118,575)	
4	*Adjustments	600000				459,830	0.00	459,830	13,957
	Total				88,134,445	5,810,863	6.59	341,255	132,532

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>		BORROWER DESIGNATION  VA0002
INSTRUCTIONS - See help in the online application		PERIOD ENDED December, 2017
<b>PART K. kWh PURCHASED AND TOTAL COST</b>		
<b>No</b>	<b>Comments</b>	
1		
2		
3		
4		

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>		BORROWER DESIGNATION VA0002	
INSTRUCTIONS - See help in the online application.		PERIOD ENDED December, 2017	
<b>PART L. LONG-TERM LEASES</b>			
No	NAME OF LESSOR (a)	TYPE OF PROPERTY (b)	RENTAL THIS YEAR (c)
<b>TOTAL</b>			

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>	<b>BORROWER DESIGNATION</b> VA0002
	<b>PERIOD ENDED</b> December, 2017

INSTRUCTIONS - See help in the online application.

PART M. ANNUAL MEETING AND BOARD DATA			
1. Date of Last Annual Meeting 6/3/2017	2. Total Number of Members 5,797	3. Number of Members Present at Meeting 37	4. Was Quorum Present? Y
5. Number of Members Voting by Proxy or Mail 834	6. Total Number of Board Members 6	7. Total Amount of Fees and Expenses for Board Members \$ 30,800	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 <b>FINANCIAL AND OPERATING REPORT          ELECTRIC DISTRIBUTION</b>			BORROWER DESIGNATION VA0002		
INSTRUCTIONS - See help in the online application.			PERIOD ENDED December, 2017		
<b>PART N. LONG-TERM DEBT AND DEBT SERVICE REQUIREMENTS</b>					
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)	652,638	35,428	30,155	65,583
2	National Rural Utilities Cooperative Finance Corporation	2,284,773	152,414	332,124	484,538
3	CoBank, ACB				
4	Federal Financing Bank	14,796,003	628,548	356,039	984,587
5	RUS - Economic Development Loans				
6	Payments Unapplied	2,871,937			
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				
10	Farm Credit Leasing	93,597	4,439	31,072	35,511
	<b>TOTAL</b>	<b>14,955,074</b>	<b>820,829</b>	<b>749,390</b>	<b>1,570,219</b>

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION VA0002		
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION		PERIOD ENDED December, 2017		
INSTRUCTIONS - See help in the online application.				
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	5,503	5,469	
	b. kWh Sold			64,616,807
	c. Revenue			9,352,868
2. Residential Sales - Seasonal	a. No. Consumers Served	826	836	
	b. kWh Sold			2,586,711
	c. Revenue			566,840
3. Irrigation Sales	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
4. Comm. and Ind. 1000 KVA or Less	a. No. Consumers Served	719	714	
	b. kWh Sold			4,485,844
	c. Revenue			749,255
5. Comm. and Ind. Over 1000 KVA	a. No. Consumers Served	43	43	
	b. kWh Sold			7,336,575
	c. Revenue			832,173
6. Public Street & Highway Lighting	a. No. Consumers Served			
	b. kWh Sold			
	c. Revenue			
7. Other Sales to Public Authorities	a. No. Consumers Served	83	83	
	b. kWh Sold			667,602
	c. Revenue			106,497
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)		7,174	7,145	
11. Total kWh Sold (lines 1b thru 9b)				79,693,539
12. Total Revenue Received From Sales of Electric Energy (lines 1c thru 9c)				11,607,633
13. Transmission Revenue				
14. Other Electric Revenue				293,660
15. kWh - Own Use				201,623
16. Total kWh Purchased				88,134,445
17. Total kWh Generated				
18. Cost of Purchases and Generation				5,810,863
19. Interchange - kWh - Net				
20. Peak - Sum All kW Input (Metered) Non-coincident    Coincident <input checked="" type="checkbox"/>				17,217

UNITED STATES DEPARTMENT OF AGRICULTURE  
RURAL UTILITIES SERVICE

**FINANCIAL AND OPERATING REPORT  
ELECTRIC DISTRIBUTION**

BORROWER DESIGNATION VA0002

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 (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						
<b>10. Total</b>						

RUS Financial and Operating Report Electric Distribution

Revision Date 2014



UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE	BORROWER DESIGNATION VA0002
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS	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 I. INVESTMENTS (See Instructions for definitions of Income or Loss)**

No	DESCRIPTION (a)	INCLUDED (\$) (b)	EXCLUDED (\$) (c)	INCOME OR LOSS (\$) (d)	RURAL DEVELOPMENT (e)
<b>1</b>	<b>Non-Utility Property (NET)</b>				
	Non-Utility Property	9,615			
	Totals	9,615			
<b>2</b>	<b>Investments in Associated Organizations</b>				
	Invest Subs CFC Capital Term Certificatees		18,932	2,257	
	Invest VA, MD, DE Assoc Coop	7,400			
	Invest Assoc Org CFC		1,000		
	Invest Capital Term Certificates		268,777		
	Invest Southeastern Data Cooperative	100			
	Invest Southeastern Data Coop Patronage	78,172		4,577	
	Invest NRTC	1,000			
	Invest Assoc Org CoBank Patronage	80			
	Invest Assoc Org CFC Patronage	148,869		7,551	
	Invest Assoc Org CoBank	1,000			
	Invest Assoc Org CRC Patronage	5,801		1,675	
	Totals	242,422	288,709	16,060	
<b>4</b>	<b>Other Investments</b>				
	United Utility Supply	99,857			
	Federated Common Stock	17,511			
	Arkansas Electric Cooperative	3,025			
	Totals	120,393			
<b>6</b>	<b>Cash - General</b>				
	Demand Deposits	606,320			
	Petty Cash	500			
	Construction Fund Account	2			
	Totals	606,822			
<b>9</b>	<b>Accounts and Notes Receivable - NET</b>				
	Accounts Receivable from Subsidiary	3,498			
	Accounts Receivable - CIAC	(166)			
	Totals	3,332			
<b>11</b>	<b>TOTAL INVESTMENTS (1 thru 10)</b>	982,584	288,709	16,060	

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE  <b>FINANCIAL AND OPERATING REPORT</b> <b>ELECTRIC DISTRIBUTION</b> <b>INVESTMENTS, LOAN GUARANTEES AND LOANS</b>	BORROWER DESIGNATION VA0002
	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)
	<b>TOTAL</b>				
	TOTAL (Included Loan Guarantees Only)				

UNITED STATES DEPARTMENT OF AGRICULTURE RURAL UTILITIES SERVICE		BORROWER DESIGNATION VA0002			
FINANCIAL AND OPERATING REPORT ELECTRIC DISTRIBUTION INVESTMENTS, LOAN GUARANTEES AND LOANS		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.					
<b>SECTION III. RATIO</b>					
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]					2.52 %
<b>SECTION IV. LOANS</b>					
No	ORGANIZATION (a)	MATURITY DATE (b)	ORIGINAL AMOUNT (\$) (c)	LOAN BALANCE (\$) (d)	RURAL DEVELOPMENT (e)
1	Employees, Officers, Directors				
2	Energy Resources Conservation Loans				
	<b>TOTAL</b>				

**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**FINANCIAL REPORT**

**December 31, 2017**

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## INDEPENDENT AUDITOR'S REPORT

Board of Directors  
Craig-Botetourt Electric Cooperative  
New Castle, Virginia

### Report on the Financial Statements

We have audited the accompanying financial statements of Craig-Botetourt Electric Cooperative (the "Cooperative"), which comprise the balance sheets as of December 31, 2017 and 2016, and the related statements of revenue and patronage capital, equities, and cash flows for the years then ended, and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Cooperative's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Cooperative's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Craig-Botetourt Electric Cooperative as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 15, 2018, on our consideration of the Cooperative's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Cooperative's internal control over financial reporting and compliance.

*Brown, Edwards & Company, L.L.P.*

CERTIFIED PUBLIC ACCOUNTANTS

Roanoke, Virginia  
February 15, 2018

**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**BALANCE SHEETS  
December 31, 2017 and 2016**

	<u>2017</u>	<u>2016</u>
<b>LIABILITIES AND EQUITIES</b>		
<b>EQUITIES</b>		
Memberships	\$ 30,615	\$ 30,435
Patronage capital (Note 2)	12,262,150	12,322,912
Other equities (Note 3)	529,449	188,826
Total equities	<u>12,822,214</u>	<u>12,542,173</u>
<b>NONCURRENT LIABILITIES</b>		
Long-term debt – less current portion (Note 4)	<u>14,955,074</u>	<u>14,920,246</u>
Total noncurrent liabilities	<u>14,955,074</u>	<u>14,920,246</u>
<b>CURRENT LIABILITIES</b>		
Current portion of long-term debt (Note 4)	839,693	730,002
Line of credit (Note 5)	550,000	200,000
Accounts payable	1,001,114	830,358
Consumer deposits	228,255	222,451
Accrued taxes	30,376	30,762
Other current and accrued liabilities (Note 6)	404,831	389,397
Total current liabilities	<u>3,054,269</u>	<u>2,402,970</u>
DEFERRED CREDITS (Note 7)	<u>137,342</u>	<u>85,736</u>
	<u>\$ 30,968,899</u>	<u>\$ 29,951,125</u>
<b>ASSETS</b>		
<b>UTILITY PLANT (Note 8)</b>		
Electric plant (at cost)	\$ 39,025,186	\$ 37,354,844
Less – accumulated provision for depreciation	<u>(11,753,875)</u>	<u>(11,052,107)</u>
Utility plant – net	<u>27,271,311</u>	<u>26,302,737</u>
<b>OTHER PROPERTY AND INVESTMENTS (at cost)</b>		
Investments in associated organizations (Note 9)	651,525	643,619
Nonutility property	9,615	10,126
	<u>661,140</u>	<u>653,745</u>
<b>CURRENT ASSETS</b>		
Cash and cash equivalents	606,822	369,339
Consumer accounts receivable – less provision for doubtful accounts of \$57,003 in 2017 and \$60,419 in 2016	1,308,351	1,328,381
Other accounts receivable	3,332	105,635
Materials and supplies	321,162	321,747
Other current assets	233,395	169,245
Total current assets	<u>2,473,062</u>	<u>2,294,347</u>
DEFERRED DEBITS (Note 10)	<u>563,386</u>	<u>700,296</u>
	<u>\$ 30,968,899</u>	<u>\$ 29,951,125</u>

The Notes to Financial Statements are an integral part of these statements.



**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**STATEMENTS OF REVENUE AND PATRONAGE CAPITAL**  
**Years Ended December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
OPERATING REVENUES AND PATRONAGE CAPITAL	\$ 11,901,293	\$ 12,162,160
OPERATING EXPENSES		
Cost of power	5,810,863	6,253,825
Distribution – operation	1,002,259	972,265
Distribution – maintenance	1,245,916	1,145,691
Consumer accounts	428,040	464,745
Customer service and informational	61,072	71,106
Administrative and general	931,827	899,477
Depreciation	1,018,104	999,169
Taxes	15,799	10,896
Interest on long-term debt	816,165	791,189
Other interest expense	5,238	4,950
Total operating expenses	11,335,283	11,613,313
OPERATING MARGINS BEFORE PATRONAGE ALLOCATIONS	566,010	548,847
PATRONAGE ALLOCATIONS	22,993	20,528
NET OPERATING MARGINS	589,003	569,375
NONOPERATING MARGINS		
Interest income	167,038	83,013
Other	15,081	5,292
Total nonoperating margins	182,119	88,305
NET MARGINS	\$ 771,122	\$ 657,680

The Notes to Financial Statements are an integral part of these statements.

**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**STATEMENTS OF EQUITIES**  
**Years Ended December 31, 2017 and 2016**

	<u>Memberships</u>	<u>Patronage Capital</u>	<u>Other Equities</u>	<u>Total</u>
BALANCE, January 1, 2016	\$ 30,340	\$ 11,904,051	\$ 71,482	\$ 12,005,873
Net operating margins	-	569,375	-	569,375
Retirement of capital credits	-	(144,962)	-	(144,962)
Capital credit gains	-	-	29,039	29,039
Other retirement	-	(5,552)	-	(5,552)
Non-operating margins	-	-	88,305	88,305
Net change in memberships	<u>95</u>	<u>-</u>	<u>-</u>	<u>95</u>
BALANCE, December 31, 2016	30,435	12,322,912	188,826	12,542,173
Net operating margins	-	589,003	-	589,003
Retirement of capital credits	-	(647,208)	-	(647,208)
Capital credit gains	-	-	158,504	158,504
Other retirement	-	(2,557)	-	(2,557)
Non-operating margins	-	-	182,119	182,119
Net change in memberships	<u>180</u>	<u>-</u>	<u>-</u>	<u>180</u>
BALANCE, December 31, 2017	<u>\$ 30,615</u>	<u>\$ 12,262,150</u>	<u>\$ 529,449</u>	<u>\$ 12,822,214</u>

The Notes to Financial Statements are an integral part of these statements.

**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**STATEMENTS OF CASH FLOWS**  
**Years Ended December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
<b>OPERATING ACTIVITIES</b>		
Cash received from consumers	\$ 11,921,324	\$ 12,006,069
Cash paid to suppliers and employees	(9,080,388)	(9,546,669)
Interest received	19,440	14,492
Interest paid	(152,188)	(317,291)
Net cash provided by operating activities	2,708,188	2,156,601
<b>INVESTING ACTIVITIES</b>		
Construction and acquisition of plant	(1,881,362)	(1,406,991)
Plant removal costs	(159,361)	(166,986)
Proceeds from sale of scrap	21,771	15,570
Contributions in aid of construction	32,274	82,493
Net cash used in investing activities	(1,986,678)	(1,475,914)
<b>FINANCING ACTIVITIES</b>		
Capital credits received from suppliers	15,087	15,711
Proceeds from issuance of FFB debt	2,500,000	-
Draw on CFC line of credit	550,000	200,000
Advance payments to RUS cushion of credit	(2,500,000)	(450,000)
Payments on line of credit	(200,000)	-
Principal payments on CFC loans	(332,125)	(348,130)
Principal payments on FFB loans	-	(77,977)
Principal payments on Farm Credit leasing	(34,269)	(15,961)
Increase in membership issued	180	95
Increase (decrease) in consumer deposits	5,804	(1,969)
Retirement of capital credits	(488,704)	(115,923)
Net cash used in financing activities	(484,027)	(794,154)
Net change in cash and cash equivalents	237,483	(113,467)
<b>CASH AND CASH EQUIVALENTS</b>		
Beginning	369,339	482,806
Ending	\$ 606,822	\$ 369,339

The Notes to Financial Statements are an integral part of these statements.

**CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

**STATEMENTS OF CASH FLOWS**  
**Years Ended December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
<b>RECONCILIATION OF NET MARGINS TO NET CASH PROVIDED BY OPERATING ACTIVITIES</b>		
Net margins	\$ 771,122	\$ 657,680
Adjustments to reconcile net margins to cash provided by operating activities:		
Depreciation	1,018,104	999,169
Bad debts	394	113
Patronage allocations	(22,993)	(20,528)
Interest received on cushion of credit, net	(153,064)	(68,521)
Interest paid using cushion of credit	663,977	473,898
Donated capital (other retirements)	(2,557)	(5,552)
Change in:		
Consumer accounts receivable	19,636	(156,204)
Other accounts receivable	102,303	61,323
Other current assets	(64,150)	(67,081)
Deferred debits	136,910	62,564
Nonutility property	511	510
Accounts payable	170,756	158,782
Accrued taxes	(386)	1,540
Other current and accrued liabilities	15,434	14,092
Deferred credits	51,606	76,541
Materials and supplies	585	(31,725)
	<b>\$ 2,708,188</b>	<b>\$ 2,156,601</b>

The Notes to Financial Statements are an integral part of these statements.



**B O T E T O U R T**  
COUNTY OF VIRGINIA

L.W. "Jack" Leffel  
Chairman

Donald M. "Mac" Scothorn  
Vice-Chairman

Steve P. Clinton  
Billy W. Martin, Sr.  
I. Ray Sloan

**Office of the Administrator**

1 West Main Street  
Fincastle, Virginia 24090

December 11, 2018

Dr. Tamarah Holmes, Associate Director  
Policy and Strategic Development  
Virginia Department of Housing and Community Development  
Main Street Center  
600 East Main Street, Suite 300  
Richmond, Virginia 23219

Re: Botetourt County funding and partnership support for Craig-Botetourt Electric Cooperative's Virginia Telecommunications Initiative proposal

Dear Dr. Holmes:

Botetourt County is experiencing economic growth and opportunities that require adequate and affordable Internet service to support our businesses and residents. As such, the County has been actively engaged in ways to improve broadband throughout the county during 2018. We formed the Botetourt Broadband Advisory Commission in January to focus on bringing improved broadband to the County. The County conducted a citizen survey in the spring which indicated more than 80 percent of residents and businesses consider Internet access a necessity and believe more needs to be done to meet current and future demand.

Botetourt County hosted a Broadband Summit in September to hear from providers and broadband experts on how the County could improve Internet access. As a result of that initiative, the County hired a consultant to do a comprehensive assessment and identify specific and actionable strategies to improve access and capacity throughout the County. The assessment identified over thirty percent (30%) of Botetourt citizens have no access to fixed (excluding cellular and satellite) Internet service. Almost half

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(47%) of the citizens with Internet access rely upon DSL technology which is limited in speed and capacity. The actionable strategies include a phased geographic plan that is prioritized based on demand.

Craig-Botetourt Electric Coop (CBEC) is proposing to build fiber-to-the-home in 2 of our top 3 priority areas. CBEC's Phase I build (the target of this application) would provide fiber Internet access to over 600 homes including over 50 businesses. The remaining two phases of CBEC's planned build will deliver fiber service to an additional 700 homes including 47 businesses. CBEC's fiber build plan would provide access to almost thirty-percent (30%) of our unserved areas. The County is committed to partnering with CBEC to extend tested fiber to minimum 25/3 service level to the project area. It is the hopes of Botetourt that you will be able to serve as many residents as fiscally possible as soon as possible.

Botetourt County has invested in gathering detailed data and setting broadband strategies to improve access and capacity. We have shared data and analysis results with CBEC as a partner to them on this grant application - **an estimated value of \$20,000.** Additionally the County is prepared to provide the following assistance contingent upon CBEC securing this grant:

- securing all needed state and local permits;
- waive all local permit fees; and,
- provide up to \$200,000 cash grant over a two FY period for this project.

We look forward to the future with our work with CBEC and the Virginia Department of Housing and Community Development. **This commits Botetourt County to a contribution of \$220,000 toward this project if funded** subject to approval and appropriation from the Board of Supervisors and a performance agreement with Botetourt County EDA. Should you have any questions, please do not hesitate to contact us.

Sincerely yours,



Gary Larrowe  
County Administrator  
Botetourt County, Virginia

Cc: Botetourt County Board of Supervisors  
Botetourt County Economic Development Authority  
Shawn Hildebrand, Craig-Botetourt Electric Cooperative

Craig Botetourt Electric Cooperative  
Calculation of in kind contribution  
Project Management

	# Hours:	Hourly wage:	Employee wage:
Shawn Hildebrand	500	\$ 77	\$ 38,461
Jeff Ahearn	500	\$ 49	\$ 24,500
Ann Bostic	100	\$ 38	\$ 3,800
Mary Ann Gober	20	\$ 28	\$ 560
			\$ 67,321

Fujitsu Network Communications was asked to develop preliminary outside plant (OSP) build and access electronics pricing for Craig-Botetourt Electrical Cooperative (CBEC). The scope of the pricing quote is bound by the following parameters:

Total number of addresses within the project area	<b>621</b>
Addresses requiring drop fiber placement	<b>406</b>
Total route miles (feet) contained within the project	<b>370,585 ft (70 miles)</b>
Percentage of constructed feet Overhead vs. Underground	<b>OH 278,583 ft (75%) UG 92,002 ft (25%)</b>
Number of utility poles	<b>1130</b>
Average length of service drop in design	<b>847</b>
Percentage of rock on buried construction	<b>10%</b>
Subscriber take rate	<b>65.4% (406)</b>

## Pricing

Per the above parameters agreed upon by Fujitsu and CBEC, the following preliminary price quote is extended for 90 days from receipt.

More detailed pricing information can be found in Attachments A and B.

<b>Preliminary Scope of Services Category</b>	<b>Price</b>
Preliminary OSP Build	<b>\$ 1,671,870</b>
Preliminary Access Electronics	<b>\$ 197,805</b>
<b>Total Price</b>	<b>\$1,869,675</b>

## Caveats

Fujitsu provides this services quote for the purpose of CBEC filing the VADI Grant application.

Final pricing is contingent upon: a) final design completion, b) engineering walkout to address make-ready, c) verification of local labor prices, d) project management and e) approval of required permits.

Prices are subject to change based on the above.



## Attachment A: OSP Build Preliminary Quote

### Estimated Quantities and Labor Pricing for CBEC

1. The Project will be broke down into 5 catagories: Engineering, Underground construction, Aerial construction, Splicing and Installation
2. The "Other" table beginning at line 74, may be used for any items essential to your completing the project that were not in the main table.
3. Prelim BOM tab contains additional information with regards to design

4  
5 **Project Assumptions or Cost Factors**

6	1. The total number of addresses with in the Project area	621			
7	2. Addresses that need drop fiber placed	406			
8	3. The total route contained within the project	370,585		70	Miles
9	4. The percentage of constructed feet Aerial vs. Undergr	OH %	OH	UG feet	UG %
10		75%	278,583	92,002	25%
11	5. Number of Utility Poles	1130			
12	6. Average length of service drop in design	846			
13	7. Percentage of rock on buried construction	10%			

	Item Description	Unit of Measure	Units	Labor Unit Price	Extened Labor	Material Price
17	<b>Engineering</b>					
18	Infrastructure Design	Ft	370,585	\$ 0.046	\$ 17,102.50	
19	Field Engineering CRO	Ft	370,585	\$ 0.074	\$ 27,364.00	
20	CAD/Drafting/Design updates	Ft	370,585	\$ 0.028	\$ 10,261.50	
21	Standard Permitting and ROW	Ft	92,002	\$ 0.032	\$ 2,972.12	
22	Asbulting	Ft	370,585	\$ 0.018	\$ 6,841.00	
23	Total Engineering				\$ 64,541.12	\$ -
24	<b>Underground Construction</b>		Total UG Foota	92,002		
25	Trench standard conditions	Ft	29,998	\$ 5.584	\$ 167,513.33	\$ -
26	Directional drilling standard conditions	Ft	920	\$ 11.076	\$ 10,190.14	
27	Pulling fiber	Ft	29,998	\$ 0.785	\$ 23,534.93	\$ 35,994.60
28	Installing Medium Vault (base 24" x 38")	Ea	259	\$ 253.825	\$ 65,740.68	\$ 35,858.55
29	Installing Large Vault (base 36" x 48")/LCP cabinet	Ea	7	\$ 923.000	\$ 6,461.00	\$ 3,230.50
30	Installing conduit	Ft	29,998.00	\$ 0.462	\$ 13,844.08	\$ 8,860.21
31	Rock adder	Ft	9,200	\$ 4.615	\$ 42,458.92	\$ -
32	Total Underground Construction				\$ 329,743.08	\$ 83,943.86
33	<b>Aerial Construction</b>		Total OH Foota	278,583.00		
34	Place ADSS cable	Ft	180,189	\$ 1.293	\$ 232,984.38	\$ 241,155.95
35	Install riser	Ea	82	\$ 69.225	\$ 5,676.45	\$ 6,206.25
36	Total Aerial Construction				\$ 238,660.83	\$ 247,362.20

37	<b>Splicing</b>					
38	Prep of Medium Fiber Optic Splice Closure	Ea	348	\$ 138.450	\$ 48,180.60	\$ 136,511.70
39	Prep of Large Fiber Optic Splice Closure	Ea	47	\$ 230.750	\$ 10,845.25	\$ 16,918.59
40	Prep of a cabinet and all fibers terminating at cabinet	Ea	4	\$ 230.750	\$ 923.00	\$ 18,460.00
41	Prep of Fiber Termination Panel	Ea	4	\$ 184.600	\$ 738.40	\$ 3,692.00
42	Splice 1-36 fibers	Ea	1,040	\$ 18.460	\$ 19,198.40	\$ 201.58
43	Splice 37-96 fibers	Ea	640	\$ 14.768	\$ 9,451.52	\$ 124.05
44	Splice 97-432 fiber	Ea	1,152	\$ 11.076	\$ 12,759.55	\$ 223.29
45	Test fiber	Ea	744	\$ 7.384	\$ 5,493.70	\$ -
46	<b>Total Splicing</b>				\$ 107,590.42	\$ 176,131.22
47	<b>Drop Installation</b>					
48	Placement of Optical Network Terminal (ONT)	Ea	406	\$ 41.535	\$ 16,863.21	\$ 11,242.14
49	Placement of fiber optic patch cord in hut or cabinet	Ea	406	\$ 10.153	\$ 4,122.12	\$ 1,873.69
50	Placement of residential drop conduit at a 12 inch depth	Ea	101	\$ 276.900	\$ 27,909.91	\$ 15,815.62
51	Placement of residential drop fiber in drop conduit	Ea	101	\$ 138.450	\$ 13,954.95	\$ 10,233.63
	Placement of aerial drop fiber for residential	Ea	306	\$ 323.050	\$ 98,853.30	\$ 25,136.98
52	Placement of 1.25 inch conduit to facilitate joint drop co	Ea	62,004	\$ 2.308	\$ 143,074.23	\$ 18,313.50
53	<b>Total Drop Installation</b>				\$ 304,777.72	\$ 82,615.56
55	<b>Other</b>					
56	Make Ready Engineering includes Pole Data Collection	Ea	1130	\$ 32.305	\$ 36,504.65	
57				\$ -		
58	<b>Total Other</b>				\$ 36,504.65	\$ -
59					<b>Labor</b>	<b>Materials</b>
60				Total Engineering Costs	\$ 64,541.12	\$ -
61				Total Underground construction Co	\$ 329,743.08	\$ 83,943.86
62				Total Aerial Construction Costs	\$ 238,660.83	\$ 247,362.20
63				Total Splicing Costs	\$ 107,590.42	\$ 176,131.22
64				Total Drop Inst.	\$ 304,777.72	\$ 82,615.56
65				Total Other Costs	\$ 36,504.65	\$ -
66				<b>Total OSP Project Costs</b>	<b>\$ 1,081,817.81</b>	<b>\$ 590,052.84</b>

OSP Labor \$ 1,081,817.81  
 OSP Materials \$ 590,052.84  
**Total OSP Project costs \$ 1,671,870.65**

**Assumptions**

- 1 No make ready construction costs included with estimated pricing  
Aerial ADSS cable placement labor price reduced by 20 % per direction of CBEC, actual labor unit pricing at time of RFP will be used when completing
- 2 when completing
- 3 Per CBEC removed all 1.25" drop duct until drops are placed as needed
- 4 ADSS cable priced at \$1.20 per foot for an average price.
- 5 Aerial hardware placed at \$.14 foot (approximately \$43 per pole for hardware)

## Attachment B: Access Electronics Quote

Total Number of Households	621
Number of medium/large business units (number if applicable)	0
Number of medium/large business units (% if applicable)	0%
XGPON 10GE large Business/Entities	0
switched Ethernet based customers	0
Subscribers (take rate)	65.4%
GPON ratio 1:N	32

Access Electronics	Units Qty	Unit Price	Extended Price
<b>Number of OLT Chassis Systems (Calix)</b>			
E9-2 System Package (1 x Shelf, 4 x Fans, 1 x Installation Kit)	2	\$942	\$1,884
E9-2 CLX3001 Aggregation and Common Control Card (4xCDFP, 2xQSFP28, 8xSFP+, 2xSFP)	2	\$10,013	\$20,026
CDFP to 4 x 100GE QSFP28 Direct Attach Breakout Cable (DAC), 3m, passive	8	\$536	\$4,288
E9-2 GP1601 line card (2xQSFP28, 16xGPON OIM ports)	1	\$14,373	\$14,373
10GE SFP+, Single Mode dual fiber transceiver, 10Km, 1310nm, LC, I-temp	2	\$706	\$1,412
GPON SFP OIM, Class B+, 20Km, 1490/1310nm Single Fiber Transceiver, C-Temp, AXOS	16	\$477	\$7,632
<b>Home Electronics</b>			
716GE ONT, 2 POTS, 4 GE -CE (outdoor ONT)	406	\$294	\$119,364
UPS SFU CYBP27U Indoor 12V 7.2AH 24W - 2- prong Type A Floating	406	\$59	\$23,954
SFU ONT Power Cord, 7 pin CYBR UPS to ONT Un-terminated, 5 ft	406	\$12	\$4,872
<b>TOTAL</b>			<b>\$197,805</b>



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## Office of the Administrator

1 West Main Street  
Fincastle, Virginia 24090

December 11, 2018

Dr. Tamarah Holmes, Associate Director  
Policy and Strategic Development  
Virginia Department of Housing and Community Development  
Main Street Center  
600 East Main Street, Suite 300  
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Sincerely yours,



Gary Larrowe  
County Administrator  
Botetourt County, Virginia

Cc: Botetourt County Board of Supervisors  
Botetourt County Economic Development Authority  
Shawn Hildebrand, Craig-Botetourt Electric Cooperative

## . REGULAR MEETING OF THE BOARD OF DIRECTORS

The Board of Directors of Craig-Botetourt Electric Cooperative met at the Cooperative Office in New Castle, Commonwealth of Virginia August 30, 2018, at 4:00 P.M.

The meeting was called to order by President Persinger.

Invocation was given by Director Garman.

On calling the roll, the secretary reported the following persons present:

Jasper B. Persinger, Jr.  
Frank R. Garman, Jr.  
Clell R. Clemons, Jr.  
James E. Huffman  
Patrick J. Ryan

said persons being all the directors of the Cooperative except J. C. Winstead. Also present were Steve Yost, Craig-Botetourt's Attorney; Shawn Hildebrand, CEO; Jeff Ahearn, Manager of Electric Distribution Services; Mack McCaleb, Supervisor of Field Services; Ann Bostic, Manager of Accounting; and Sheila Switzer, Recording Secretary.

Director Ryan made the motion, seconded by Director Clemons, and so voted by the Board that the minutes of the July 26, 2018, board meeting be approved as e-mailed.

Safety message was on "Watching Out for Children - School is Now in Session".

### **Financial Services/HR:**

Mack McCaleb introduced Dustin Smith, Journeyman Lineman, to the Board. Dustin is a former employee of Craig-Botetourt who came back to the Cooperative on August 20, 2018.

July Financials were reviewed. July had margins of \$82,083.24. Monthly TIER was 2.212.

Investments were reviewed.

Director Clemons made a motion, seconded by Director Ryan and so voted by the Board, that the Financial Reports be accepted as presented.

CEO stated that we are looking at better ways to manage cash. This will be discussed in depth at the September meeting.

### **Field Services:**

Right-of-way was reviewed. A copy of the mileage and cost was given to each director. Total mileage cut for the month of July was 11.95 for the mileage crew with a

cost of \$52,400.75 and the hourly crew a cost of \$11,970.85. We are only 1 mile short of schedule currently

Spraying was discussed.

VDOT 220 job was reviewed. VDOT has secured all easements needed for the job.

CEO Hildebrand stated that he would like to ask the Board to amend the budget by \$150,000 for right-of-way. CEO Hildebrand stated that he would like to see CBEC increase our right-of-way this year by an additional 30 miles. Director Ryan made the motion that we amend our budget by \$150,000 for right-of-way. Director Clemons seconded the motion adding that the CEO and staff decide how they will use the \$150,000 for right-of-way. Motion was so voted.

#### **Technical Services:**

Safety Report --- there has been no lost time accident this month --- copy of safety report attached and made a part of the minutes. Safety Stand-Down is scheduled for October 2nd. An agenda for the Safety Stand-Down will be available at the September meeting.

#### **Electrical Distribution Services:**

Jeff has gotten with Apco and Dominion Virginia Power regarding testing their meters at our substations. Dominion Virginia Power tested all three last year and they were right at 100%. Apco will test their meters at our substations by the end of this year.

Jeff has been working with Power Services and they are very close to being done with the Long Range and Short-Range Work Plan. Hopes are to present it at the September Board meeting.

Ironto Substation - working towards getting permits from Montgomery County.

#### **Member Services:**

Disconnects were done August 21, 2018. There were 31 accounts up for disconnects with 6 accounts being disconnected. As of today, there are 3 accounts that have not been reconnected.

#### **Other Business:**

Capital Credit distribution for 2018 was reviewed. Two Scenarios were given for consideration (Copy attached and made a part of the minutes). Director Ryan made the motion at Scenario 1 (Clean up of 1987 thru 1990, 1991 in the amount of \$357,500 and

1992 in the amount of \$92,500) be given back to the members. The motion was seconded by Director Clemons. After discussion the motion passed with a vote of 3 in favor of and Director Huffman opposing. Motion carried.

Director Clemons recommended that next year prior to Capital Credit distribution being on the agenda that CEO inform the Board that it would be on the agenda, so they can have time to ask more questions with more scenarios.

Fiber update – CEO Hildebrand will be attending a meeting on September 13th regarding fiber grants along with the other four Cooperatives in the group and needs to know what the Boards plans are as to whether we will be a part of this group or not. CEO Hildebrand reviews information that he had emailed the directors on Monday. After much discussion and questions, Director Ryan made the motion, seconded by Director Garman that the board of directors commits up to \$2 million dollars to phase 1 of this project. The Cooperative would use this commitment to match any grants that the cooperative staff was able to secure. No money would be spent on this project until we have received enough commitments to complete miles stones such as the following: With an additional \$100,000.

- 1.) Construction of the head end/access point. Construction cost of \$250,000.
- 2.) Construction of the fiber backbone to the north.
  - a. Part 1, construction cost of fiber backbone to the north, \$937,500.
  - b. Part 2, construction cost of the backbone to the north, \$937,500.
- 3.) Construction of the fiber backbone to the south.
  - a. Part 1, construction cost of fiber backbone to the south, \$937,500.
  - b. Part 2, construction cost of the backbone to the south, \$937,500.

After discussion and many questions, the motion was unanimously approved.

**CEO'S Report** --- Copy attached and made a part of the minutes.

- 1.) Union activities – The Union filed a complaint with the National Labor Relations Board regarding the Lineman Training Apprentice Agreement. The Union contends that the Agreement is unlawful and that the Cooperative does not have the right to implement. We have not heard back from the National Labor Relations Board.
- 11.) Annual rate change - There was a mistake in the first write up of the riders. We were able to bill the correct riders from the beginning, but we were not able to catch the mistake in the Cooperative Living. There will be a correction in the September version of Cooperative Living. There were no issues in the billing just in the notification in the magazine.
- 12.) Ironto Substation - The facilities agreement has been executed and we are now finalizing the site plan with AEP so that we can work with Montgomery county on the Special Use Permit.

Mary Ann Gober, CBEC's new Cooperative Services Associate, will begin work on Tuesday, September 4th.



**CEO's & Directors' Expenses:**

CEO's expenses for the 08-16-18 statement were reviewed. Director Ryan made the motion that CEO's expenses be approved as presented. The motion was seconded by Director Clemons and so voted by the Board.

Director Ryan made the motion, seconded by Director Garman, and so voted by the Board, that Directors expenses be approved as presented by their paper work.

Director Huffman made the motion, seconded by Director Clemons that the full cost of rooms be paid by the Cooperative while attending Cooperative business. The motion was so voted.

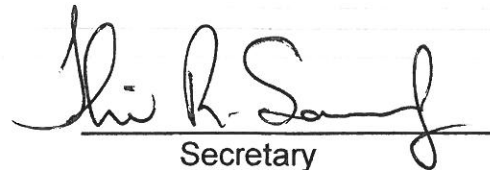
**Board Reports:**

Director Huffman commented regarding per diem for the Virginia Cooperatives. Attorney Yost updated the Board on governance activities from cooperatives across the country.

**Upcoming Events/Meetings:**

The October Board Budget Meeting, Committee Meetings and Directors Education Day is scheduled for October 22-23 at The Crossings in Glen Allen, VA. Those planning to attend are: Director Huffman and wife Lynda; Director Ryan and wife Rhonda; and Director Winstead and wife Barbie and CEO Hildebrand.

There being no further business, the meeting adjourned at 8:55 p.m.

  
Secretary

APPROVED:

  
President

**RESOLUTION OF THE  
BOARD OF DIRECTORS OF  
CRAIG-BOTETOURT ELECTRIC COOPERATIVE**

WHEREAS, Craig-Botetourt Electric Cooperative ("CBEC") is an Electric Cooperative organized under the laws of the Commonwealth of Virginia; and

WHEREAS, CBEC provides electric services to retail consumers in portions of six counties in Virginia and one county in West Virginia and owns and operates an electric distribution system including poles; and

WHEREAS, CBEC has determined that there is significant interest among its members to provide communications infrastructure and services to such members; and

WHEREAS, CBEC has conducted a feasibility study confirming that such communication services may be provided in an economical manner in light of the existing poles and infrastructure of CBEC; and

WHEREAS, CBEC has authorized its management to explore and seek private and public grants to assist it in financing the provision of communications infrastructure and services to its members; and

WHEREAS, the management of CBEC has determined that it is in the best interest of CBEC to apply for a monetary grant from the Commonwealth of Virginia Telecommunications Initiative administered by the Virginia State Department of Housing and Community Development.


NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Craig-Botetourt Electric Cooperative that:

(1) CBEC shall commit up to a maximum of \$2,000,000.00 to construct Phase 1 of the communication project, including infrastructure and the provision of communication services to its members.

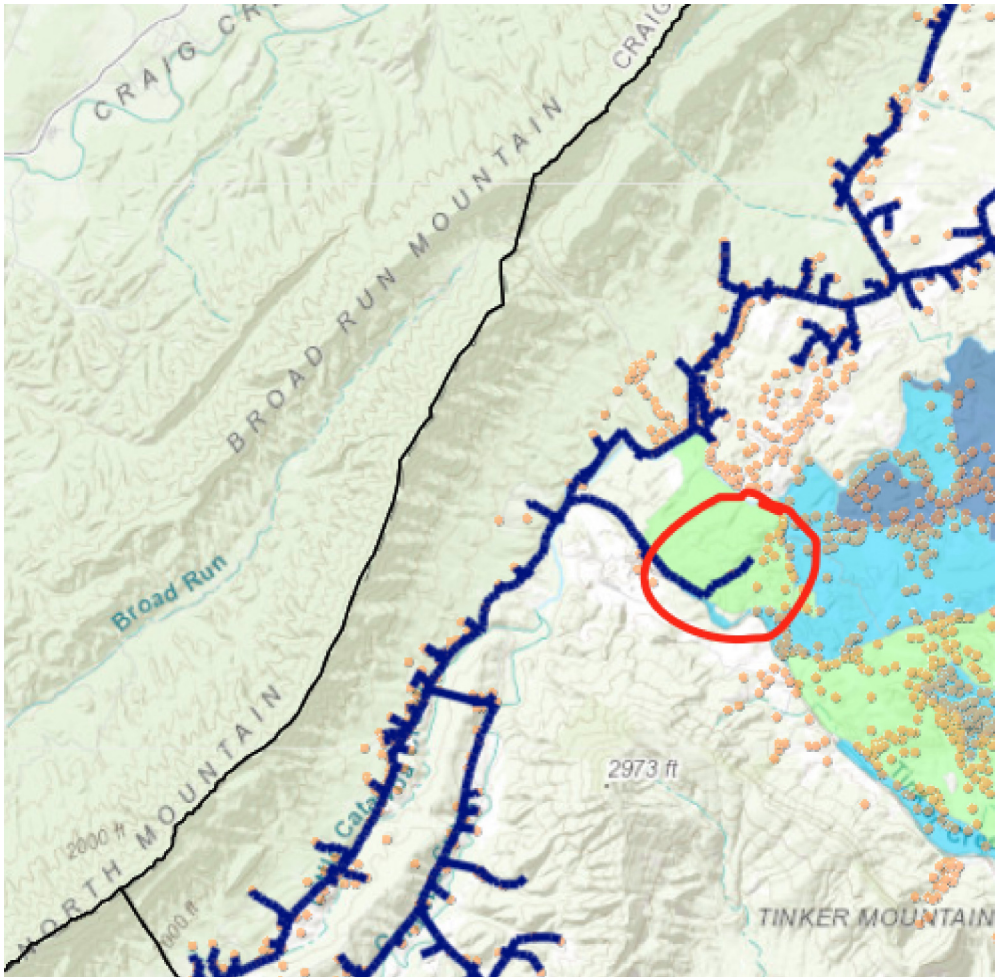
(2) That this monetary commitment of CBEC is subject to and conditioned upon the receipt of grants from public and private entities matching the monetary investment of CBEC.

CERTIFICATION

This is to attest that the foregoing Resolution was duly adopted by the Board of Directors of Craig-Botetourt Electric Cooperative at its meeting on November 29, 2018.

  
Secretary







# Memo

**To:** Tamarah Holmes,  
Associate Director of Community Development  
Policy Department of Housing & Community Development

**From:** Shawn C. Hildebrand, CEO  
Craig-Botetourt Electric Cooperative

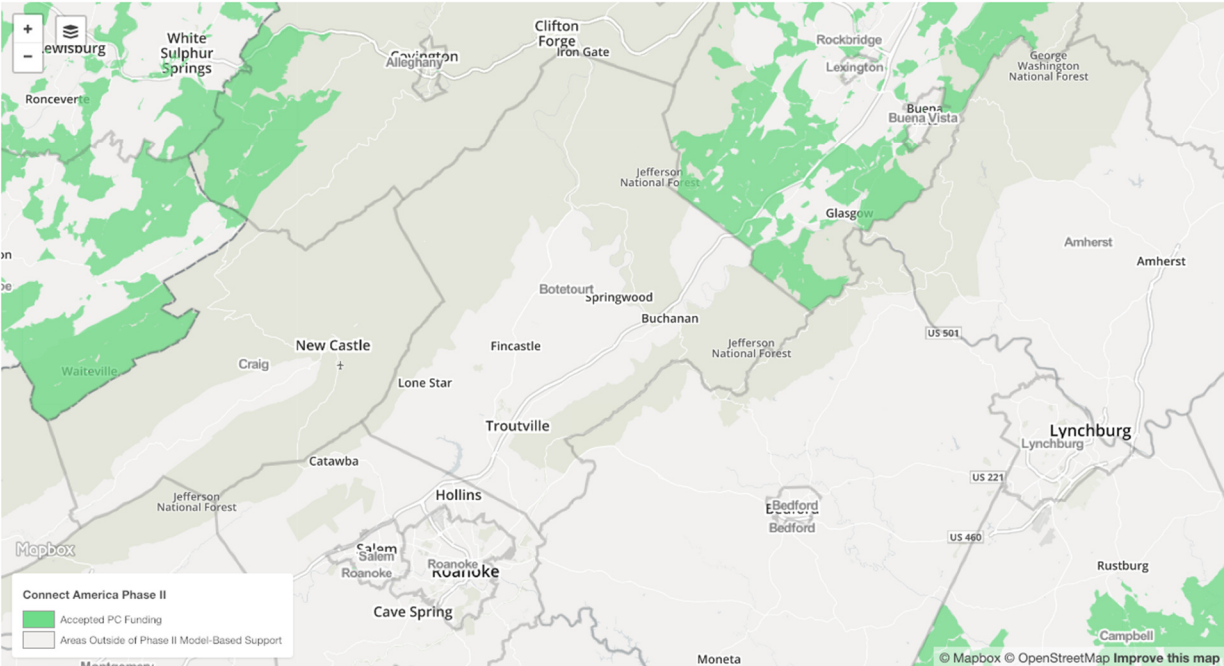
**Date:** 12/13/2018

**Re:** CAF Information

Botetourt County had no eligible or accepted areas for CAF II funding. The attached map is the FCC's Connect America Fund Phase II map showing in green areas that received CAF II funding. There are no green areas in Botetourt County. Please see map below.

## Connect America Fund Phase II

Accepted Areas Map



VATI FUNDING SOURCES TABLE

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

Source	Amount	%	Status
REQUESTED VATI	\$ 758,998.00	38.59%	Pending
Craig-Botetourt Electric Cooperative	\$ 987,999.00	50.23%	Secured
Botetourt County	\$ 220,000.00	11.18%	Secured
	\$		
	\$		
	\$		
	\$		
<b>TOTAL</b>	<b>\$1,966,997</b>	<b>100%</b>	

# Fincastle Herald

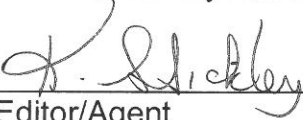
Virginia Media, Inc.  
Post Office Box 429, Lewisburg, WV 24901  
304-647-5724

## CERTIFICATE OF PUBLICATION

State of Virginia  
County of Botetourt, SS:

I, **Kathleen Stickley**, one of the Editors or Agents of the **Fincastle Herald**, publisher of the **Mainstreet Marketplace**, a weekly newspaper of general circulation published in the County of Botetourt, State of Virginia, do certify that publication of the advertisement or advertisements, **Joint Grant Application**, attached hereto was made in **2 issue(s)** of the newspaper, dated **November 7<sup>th</sup> and 14<sup>th</sup>, 2018**.






Given under my hand this **20<sup>th</sup> Day of November 2018**.

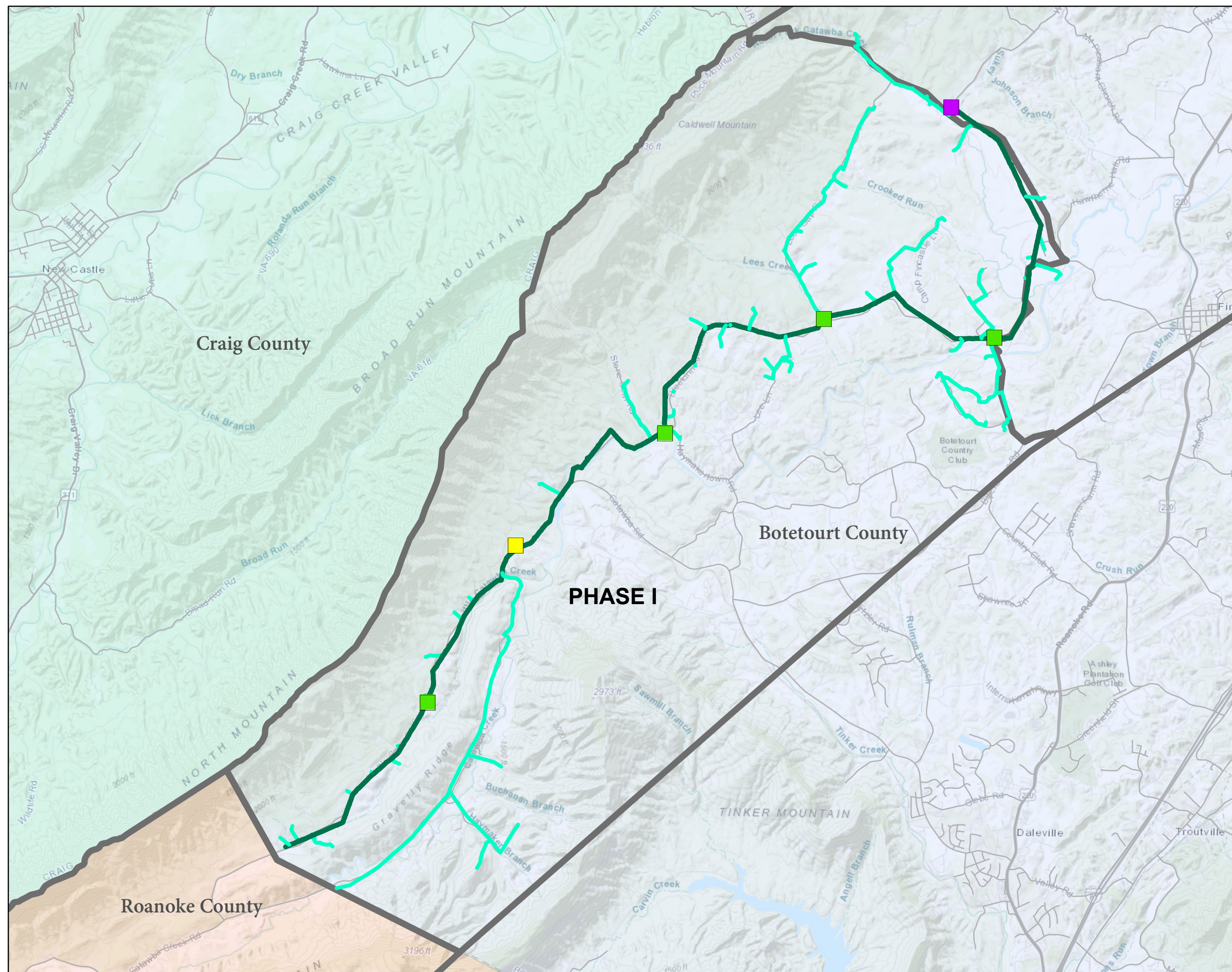
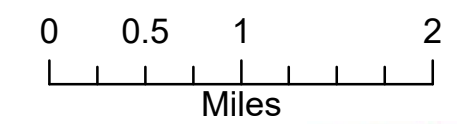
  
\_\_\_\_\_  
Editor/Agent

**\$240.00**  
Publication fee

# CBEC PRELIMINARY FIBER DESIGN

621 ADDRESSES

-  INTERCONNECT
-  HUT
-  CABINET
-  MIDDLE MILE
-  LAST MILE





Product	Unit of Measure	Units	Labor Unit Price	Extended Labor	Material Cost	Total	VATI Portion	Source of Estimate	Date	Assumptions
<b>Underground Construction (Associated underground footage is 92,002 feet):</b>										
Trench standard conditions	Ft	29,998	\$ 5.584	\$ 167,513.33	\$ -	\$ 167,513.33	\$ 167,513.33	Fujitsu Network Communications	12/10/2018	This includes trenching as well as all restoration of standards soils. If speciality restoration is required it will be added as a change order and unit prices agreed upon at a later date.
Directional drilling standard conditions	Ft	920	\$ 11.076	\$ 10,190.14		\$ 10,190.14	\$ 10,190.14	Fujitsu Network Communications	12/10/2018	This unit includes directionally drilling across any roads where trenching will not be acceptable. This QTY is based to change after a field walk is conducted of the project area. Covers typical asphalt restoration of road crossing.
Pulling fiber	Ft	29,998	\$ 0.785	\$ 23,534.93	\$ 35,994.60	\$ 59,529.53	\$ 59,529.53	Fujitsu Network Communications	12/10/2018	Pulling fiber in all conduit, includes existing conduit
Installing Medium Vault (base 24" x 38")	Ea	259	\$ 253.825	\$ 65,740.68	\$ 35,858.55	\$ 101,599.23	\$ 101,599.23	Fujitsu Network Communications	12/10/2018	These medium vaults are typically used for small transition points or splice closures where 96 count fibers or less are spliced.
Installing Large Vault (base 36" x 48")/LCP cabinet	Ea	7	\$ 923.000	\$ 6,461.00	\$ 3,230.50	\$ 9,691.86	\$ 9,691.86	Fujitsu Network Communications	12/10/2018	These large vaults are being used for the vaults at huts and cabinets
Installing conduit	Ft	29,998.00	\$ 0.462	\$ 13,844.08	\$ 8,860.21	\$ 22,704.29	\$ 22,704.29	Fujitsu Network Communications	12/10/2018	1 1/4 conduit hdpe 13.5
Rock adder	Ft	9,200	\$ 4.615	\$ 42,458.92	\$ -	\$ 42,458.92	\$ 42,458.92	Fujitsu Network Communications	12/10/2018	This unit includes all rock that is forecasted by percent entry above on line 9 of project assumptions and cost factors
<b>Aerial Construction (Associated overhead footage is 278,583 feet):</b>										
Place ADSS cable	Ft	180,189	\$ 1.29	\$ 232,984.38	\$ 241,155.95	\$ 474,140.33	\$ 333,428.00	Fujitsu Network Communications	12/10/2018	This unit includes placing ADSS cable in electrical space
Install riser	Ea	82	\$ 69.23	\$ 5,676.45	\$ 6,206.25	\$ 11,882.70	\$ 11,882.70	Fujitsu Network Communications	12/10/2018	Riser will only be placed between aerial and UG transitions
<b>Total VATI</b>							<b>\$ 758,998.00</b>			



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

TERRY L. AUSTIN  
POST OFFICE BOX 400  
BUCHANAN, VIRGINIA 24066  
  
NINETEENTH DISTRICT

COMMITTEE ASSIGNMENTS:  
TRANSPORTATION  
COUNTIES, CITIES AND TOWNS  
RULES

To Whom it May Concern:

Broadband is fast becoming a necessity as it relates to a person's livelihood and wellbeing in the 21<sup>st</sup> century. As the digital economy continues to expand and evolve, those without a fast and reliable connection to the internet will struggle to reap the rewards of interconnectivity. When it comes to education and economic opportunity, the currently unserved residents of rural Botetourt County are placed at a disadvantage compared to those living in more densely populated areas. With the technology and resources currently at our disposal, this situation is unacceptable.

The grant submitted by Craig-Botetourt Electrical Cooperative to the Department of Housing and Community Development (DHCD) is the perfect opportunity for the Commonwealth to display its ability to efficiently and effectively enhance the lives of the people residing and working in the 621 unserved addresses in the area. Fifty-six of these addresses represent businesses and 150 of these homes have at least one school aged child.

Providing broadband access to this area will increase home values, attract business, and provide students with the same opportunity for success as their peers living in suburban areas. It will also have the benefit of providing a more resilient electrical distribution system that is primed for an increased reliance of the "Smart Grid" as the Internet of Things becomes more prevalent in daily life.

I strongly urge you to consider the cost benefit of this specific project as well as its future potential as it relates to providing economic opportunity to these rural residents and businesses who are currently unserved.

Thank you,

A handwritten signature in black ink, appearing to read "Terry L. Austin", written over a white background.

Delegate Terry L. Austin  
19<sup>th</sup> House District