Application to DHCD Submitted through CAMS

Alleghany County

Crows-Hematite Broadband Initiative

Application ID:	95708162022093622
Application Status:	Pending
Program Name:	Virginia Telecommunication Initiative 2023 - Application
Organization Name:	Alleghany County
Organization Address:	9212 Winterberry Avenue Covington, VA 24426-6251
Profile Manager Name:	Melissa Munsey
Profile Manager Phone:	(540) 863-6600
Profile Manager Email:	mmunsey@co.alleghany.va.us
Project Name:	Crows-Hematite Broadband Initiative
Project Contact Name:	Reid Walters
Project Contact Phone:	(540) 863-6600
Project Contact Email:	rwalters@co.alleghany.va.us
Project Location:	9212 Winterberry Avenue Covington, VA 24426-6251
Project Service Area:	Alleghany County
Total Requested Amount:	$3,176,057.00
Required Annual Audit Status:	Accepted

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Crows-Hematite Broadband Initiative

Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	**$3,176,057.00**	**$790,852.00**	**$3,966,909.00**
Administration	$0.00	$20,000.00	$20,000.00
Construction	$3,176,057.00	$770,852.00	$3,946,909.00
Total:	**$3,176,057.00**	**$790,852.00**	**$3,966,909.00**

Budget Narrative:

This project would provide universal broadband coverage to Alleghany County. The application covers 40 square miles in the Crows-Hematite area of the County which is the only remaining area not served. The area contains 365 unserved passings for a total project cost of $3,966,909.

Questions and Responses:

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Crows-Hematite Broadband Initiative

1. **Project Description and Need**

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

Answer:

In November 2021, Lumos Networks completed a critical project that provides 100% gigabit fiber internet speed to those in the company's service area in the Alleghany Highlands. The area in the Western part of Alleghany County, known as Crows & Hematite epitomizes "the digital divide." This area of the County is not covered by the Lumos service area, lacks cellular service, and is in dire need of a reliable method of communication and internet accessibility at properties, businesses, and residences. This area of the County has low-density population, challenging topography, and is affected by the Green Bank Observatory's "national radio quiet zone" federal regulations. Frontier Communications, which has served the area with landlines only, is not consistent with service and maintenance. The landlines are often inoperable. There have been attempts to work with Frontier on these issues, with no avail. Frontier only has a 10-foot easement on either side of their lines, in mostly-wooded areas. This restriction makes tree maintenance nearly impossible, with fallen trees often impacting service. County residents are often left without a means of communication for business, pleasure, education, and most-importantly emergency services.

- Residents are often **without** the ability to call for Emergency Services, when needed;
- Residents lack access to internet services, making today's connected world out of their reach;
- Students who need internet access have to devise alternate methods in order to complete assignments and do proper research, outside of their homes;

Significant economic development projects are occurring in Alleghany County that warrant the need for universal broadband coverage. Green Thumb Industries, LLC is currently conducting a manufacturing relocation into an existing industrial building in Alleghany County. Within the next 5 years, it is projected that the total investment will be $75,000,000. This project will additionally create over 200 above median income jobs. GTI is scheduled to start production in this facility April 2023 and within two years all production will shift to their Alleghany County Facility.

The Covington-Alleghany Industrial Development Authority is in the process of developing an industrial pad ready site in Alleghany County. The site is 104 continuous acres, with 50 acres currently being prepared for industrial or manufacturing purposes. There is a joint revenue agreement between the City of Covington and Alleghany County associated with this project and the two localities have secured $6,000,000 in financing for the site preparation.

Alleghany County is working with Craig-Botetourt Electric Cooperative (CBEC) to devise a plan for installing permanent broadband infrastructure that would offer a stable and consistent means for communication. With the current economic development activities occurring in the area, stable and consistent communication is a need.

Attachment 1 shows the Project Area Map which is approximately 40 square miles. The blue marker identifies the last address that Lumos serves in the County. The red, blue and green lines show CBEC's existing powerline routes. The Alleghany County FTTX project will complete the "universal coverage" in the County. This project will start where Lumos' project and service area ends.

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

Answer:

Frontier Communications offers DSL internet connection within the project area. It is widely known that the current DSL does not offer a consistent and reliable bandwidth of 25/3 . The bandwidth typically registers 10-15/1. We have confirmed this through costumer contacts, field audits, and through documentation the County has retained dating from the late 1990's to present.

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

Answer:

There are no CAF awarded CBG's in the project area. There are no identified RDOF CBG in the project area. CBEC does not have any RDOF or CAF in the project area.

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

Answer:

When Lumos conducted an assessment and moved forward with a build-out of broadband throughout much of Allegheny County, the proposed project area was included in the assessment. Installed by Verizon, a section of copper DSL exists in the vicinity of highways 311 and 159. The copper line runs parallel to the highways and with the limited capacity of DSL, properties located more than 15,000 feet from the infrastructure cannot connect to this network. The 50 plus year old Verizon cable is plagued with issues (moister egression, noisy lines due to this moister, etc.)

Frontier advertises 25/3 DSL service for this area. This is what the customer is paying for; however, this service is well below the advertised 25/3 product. CBEC is a customer of their DSL service, less than 2500 feet from their remote switch. They see service levels at <10mbps download and <1mbps upload. The same service levels have been verified by other customers in the proposed project area. This is the only portion of DSL that exists in the project area. The entire project area has speeds below 100/20 Megabits per second.

See Attachment 3 showing maps with the lack of coverage in this project area.

5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 25 Megabits per second download and 3 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 – Passings Form.

   a. Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.

   b. If applicable, of the total number of RDOF passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.

   c. If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise . Describe the methodology used for these projections.

   d. If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.

   e. Provide the number of passings in the project area that have 25/3 Mbps or less. Describe the methodology used for these projections. (up to 15 points)

Answer:

1. 351 residential passings

   3 church passings

   1 business passing

   10 home-based business passings

2. N/A
3. N/A
4. A portion of the funding ($408,282) will be used for Lumos upgrades associated with limitations of existing equipment, including routers, switches, and optics. Also, this price includes a fiber line extension to CBEC. With CBEC not having a fiber backbone in the project area, this agreement was made between the two fiber providers to help alleviate the dire communication needs for those living and working in this portion of Allegheny County. This step will have to be accomplished to ensure all 365 passings are connected to fiber.
5. 365

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

Answer:

To our knowledge, there are no identified RDOF CBG in the project area awarded to any entity.

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

Answer:

N/A

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

Answer:

The Nokia 7360 OLT network element which will be installed within the cabinet will connect to an upstream router or layer 3 switch in the Richweb service provider's core network via 10Gbps link aggregation group (LAG). This OLT would be connected to the service provider core network via an existing aggregation switch which has been installed (at the Stonecold Hut facility at 196 Landfill Road, New Castle, VA 24127), operational, and is being managed by the service provider. Southbound, the OLT would connect to the residential ONT's using GPON technology and can provide service speed up to 1 Gbps. Sufficient capacity is available within the OLT to cater to future expansions and needs and the line cards being used will be MultiPON line cards capable of supporting even XGSPON technology in the future. The OLT and the ONT's would be provisioned and managed via inband management from the AMS server which is already installed and operational within the service provider network. Quality of Service (QoS) settings would be applied for traffic flows on the OLT and can consist of detailed mechanisms for controlling various types of traffic in both the upstream and downstream directions. See Attachment 6 - Network Design for schematic and information.

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

Answer:

The key characteristics of using GPON technology is the flexibility. Using GPON technology, the High Speed Internet (HSI) service can be offered at various speeds ranging from 20 mbps up to 1 Gbps as per the desired and defined service tier offerings. The integrated WIFI GPON ONT's are capable of supporting up to 1 Gbps using the GPON (Gigbit PON) technology. Voice services can also be offered using the same infrastructure with embedded SIP clients residing within the ONT's itself. The data services (HSI) and voice services will be carried across the network using VLAN based modeling. The VPLS manager in the 7360 OLT iHUB would aggregate traffic from all the users of that particular service. The VLAN associated with the respective service (HSI data service and voice service) will be maintained through the entire network and will be present on frames for hand-off at the core network of the service provider.

Current offerings from CBEC are at a minimum 50/50 up to 300/300 on 100% of their system. They will be changing these offerings to a minimum of 250/250 to a maximum plan 1G/1G on 100% of the system. This is due to the GPON FTTX technology.

Proposed offerings will be:

- Basic-Package: 250/250 mpbs
- Super-Package: 500/500 mbps
- Ultra-Package: 1 GBps/1Gbps

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

Answer:

Lumos recently completed its Alleghany Highlands project bringing fiber-based broadband to 12,000 addresses and added more than 650 route miles of fiber within the Alleghany Highlands. This proposed project will create the connectivity needed to provide universal broadband coverage for Alleghany County.

11. **Project Readiness**

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

Answer:

CBEC will utilize existing utility easements to attach or bury the proposed fiber optics. The existing easements will accommodate the additional plant construction. CBEC projects are reviewed by USDA-RUS for approved materials, construction specifications, environmental, and equal access (CBEC is an equal opportunity provider and employer). See Attachment 18 titled *"VA02 Amendments 1 and 2 CWP 2019-2022 - Environmental Letter"*.

A proposed project timeline is attached (Attachment 7) based upon the maximum 18 month schedule and is subject to change. A table is also included in Attachment 7 showing tasks/responsibilities.

A draft Memorandum of Understanding is attached (Attachment 8) between CBEC, the County, and the Covington-Alleghany County Industrial Development Authority. This attachment also includes a letter from CBEC giving information on their company as well as their financials. CBEC and Fujitsu have an existing commercial agreement in place for broadband design, equipment, and construction projects which is available upon request.

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

Answer:

Alleghany County has not received any VATI grants.

CBEC has received the following VATI grants:

- 2019 Application ID: 59811132018142709 (completed 2020)
- 2022 Application ID: 86508242021113928 (just executed agreement July 2022)

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

Answer:

The matching funds that total $790,852 (20%) are being provided by Alleghany County in the amount of $396,161.10 (10%) and the CBEC in the amount of $394,690.90 (10%). See attachments 9 and 10.

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

Answer:

CBEC brings as additional point of leverage to this application. They are an existing provider adjacent to this service area. The delivery of service issues with Frontier are significant and documented. In June of 2022, the West Virginia Attorney General announced an estimated $160 million settlement with Frontier to resolve complaints involving Internet speeds provided to consumers.

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

    a. Explain how you plan on communicating the project status to stakeholders, including but not limited to County leadership, project areas residents, etc. (Up to 10 points)

    b. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate. (up to 10 points)

    c. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

Answer:

a. We plan to communicate the project status to stakeholders, County leadership, project area residents, etc. by:

- Regular updates in Cooperative Living (CBEC's member magazine)
- Social Media
- Crowd Fiber
- Direct Mailing
- Community Meetings

b. We plan to promote customer take rate as follows:

- Crowd Fiber
- Direct Mailing
- Door Hangers at each location during construction

c. We will utilize the following digital literacy efforts:

- NRTC - National Rural Telecommunications Council (social media materials and tutorial videos)
- NRECA - National Rural Electric Cooperative Association
- Crowd Fiber (NRTC) gives you the tools to make sales or capture interest by address. Watch interest grow in neighborhoods you did not expect and maximize your ROI.
- VMDABC - The Virginia, Maryland, and Delaware Association of Broadband Cooperatives

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

Answer:

Name	Title/Organization	Role and Responsibilities	Background
Reid Walters	County Administrator/Alleghany County	Program Administrator/Oversee overall implementation and management of the project.	Has previous experience w/ DHCD grants, as well as Fed/State grants.
Suzanne Adcock	Director of Finance/Alleghany County	Financial Officer/Managing financial records, payment of invoices, etc.	Has previous experience w/ DHCD grants.
Melissa Munsey	Administrative Assistant/Alleghany County	Grant Manager/Requests for disbursements, reporting, etc.	Has previous experience w/ DHCD grants.
Shannon Cox	Board of Supervisors Member/Alleghany County	Board and Community Liaison/Involved in meetings and keeping community informed, etc.	Member of Board of Supervisors for 11 years.
Ray Lipes	Retired/Lumos Networks	Consulting Member/Share knowledge of infrastructure	Oversaw the Lumos Fiber Broadband Project as Senior Mgr.
Jeff Ahearn	CEO/Craig-Botetourt Electric Cooperative	Project Manager CBEC/Oversee overall management of project by CBEC	Has experience with previous VATI grants.
Others (CBEC)	There will also be other support staff from CBEC involved in the project.		

See attachment 7 for tables.

17. **Project Budget and Cost Appropriateness**

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

Answer:

CBEC (in coordination with Fujitsu) have completed a detailed cost estimate based upon preliminary engineering and design which is included in Attachment 13. Those cost estimates were incorporated into Attachment 12 (Derivation of Costs).

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

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

Answer:

a. $3,176,057.00

b. Alleghany County Serviceable Units: 365

19. **Commonwealth Priorities (Up to 50 points)**

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:
a. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.

b. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.

c. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 100/20 mbps, include information regarding the internet service provider's participation in the Affordable Connectivity Program

d. The co-applicant's efforts to mitigate supply chain constraints, including labor shortages and order-to-delivery delays on telecommunications materials required to construct broadband networks.

e. The applicant's and co-applicant's efforts to promote broadband adoption, including, but not limited to: telehealth, smart farming, e-entrepreneurship, and distance learning.

Answer:

a. The proposed project area is mostly residential, with a few home-based businesses and one brick mortar business. Three churches are in the proposed project area that serve as important meeting spaces for the local community. The local places of worship often serve as community shelters in times of disaster. Student and residential household internet accessibility is essential to the school district's ability to support virtual learning and content delivery. Without broadband communication, students face significant barriers to overall academic success. Broadband service is essential for the Alleghany County Department of Public Safety and the Alleghany County Sheriff's Department. There are significant public safety communication issues within the proposed project area. These communication issues are documented dating back to the late 1990's. Lacking broadband is often a hinderance for individuals wanting to create a home-based business. This is noted in the letters of support and is a significant hinderance in the proposed project area.

b. Achieving universal broadband coverage for Alleghany County will require a partnership between CBEC and Lumos. We have recently worked through the fine details of how these two utilities can work together to make universal broadband coverage occur in Alleghany County

c. CBEC-FCC Affordable Connectivity Program - registered participant. Documentation available upon request.

d. CBEC has a strong relationship with 3 cooperative State material procurement organizations and additional Telcom vendors:

- TEMA - Tarheel Electric Membership Association, Inc. (https://www.tema.coop/)
- UUS - United Utility Supply (https://uus.coop/c/products?clear=true)
- GRESCO (https://www.gresco.com/product-markets/telecom/)
- Power & Tel (https://www.ptsupply.com/)
- Fujitsu (https://www.fujitsu.com/us/solutions/industry/public-sector/government/)

e. Mountain Gateway Community College is located in Alleghany County and offers numerous hybrid distant learning opportunities. Broadband service to the proposed project area will permit residents to participate in these distant learning activities. Lewis Gale-Alleghany Regional Hospital is located in Alleghany County and, like many medical providers during the COVID pandemic, have offered telehealth opportunities for patients. Broadband within the proposed area will afford residents to participate in telehealth opportunities offered by our regional hospital.

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20. **Additional Information**

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

Attachment 14 – Letters of Support.

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

Label Additional Attachments as:

a. Attachment 15 –Two most recent Form 477 submitted to the FCC or equivalent

b. Attachment 16 - Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area

c. Attachment 17 - For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area

d. Attachment 18 – XXXXXXX

e. Attachment 19 – XXXXXXX

f. Attachment 20 – XXXXXXX

Answer:

N/A

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap825202224518.pdf

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

Attachment2DocumentationofFederalFundingNONE8252022105241.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnserevedAreaVATICriteria825202211636.pdf

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Passings Form (Use template provided)

Attachment4PassingsForm8252022122112.pdf

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

Attachment5RDOFPassingsForm824202235123.pdf

Propagation Map if Wireless Project

Attachment6NetworkDesign825202210543.pdf

Timeline/Project Management Plan

Attachment7TimelineProjectManagementPlan8252022103732.pdf

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

Attachment8MOUBetweenApplicantCoApplicant8252022124736.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSourcesTable825202225000.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFunding825202225049.pdf

Prior Expended Match Form (use template provided)

Attachment11PriorExpendedMatchForm824202234628.pdf

Derivation of Cost/Project Budget (Use template provided)

Attachment12DerivationofCost825202225144.pdf

Documentation of Supporting Cost Estimates

Attachment13DocumentationofSupportingCostEstimates8252022104103.pdf

Letters of Support

Attachment14LettersofSupport825202283725.pdf

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Two most recent Form 477 submitted to the FCC or equivalent

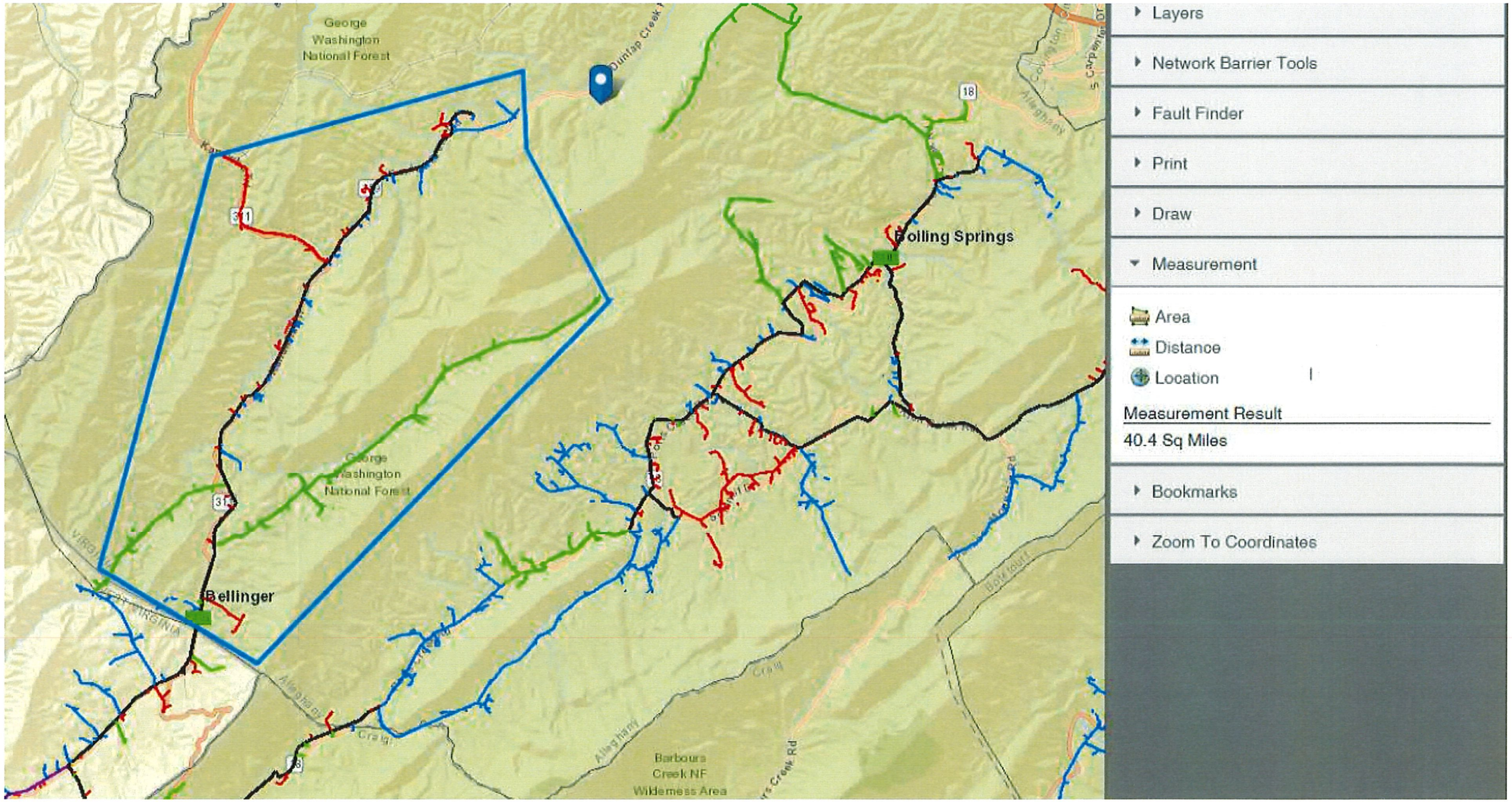
Attachment15Form477FilingSummary8182022102155.pdf

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

FiberProjetAlleghanyCounty48242022115927.zip

Optional

Attachment18VA02Amendments1and2CWP20192022EnvironmentalLetter8252022125209.pdf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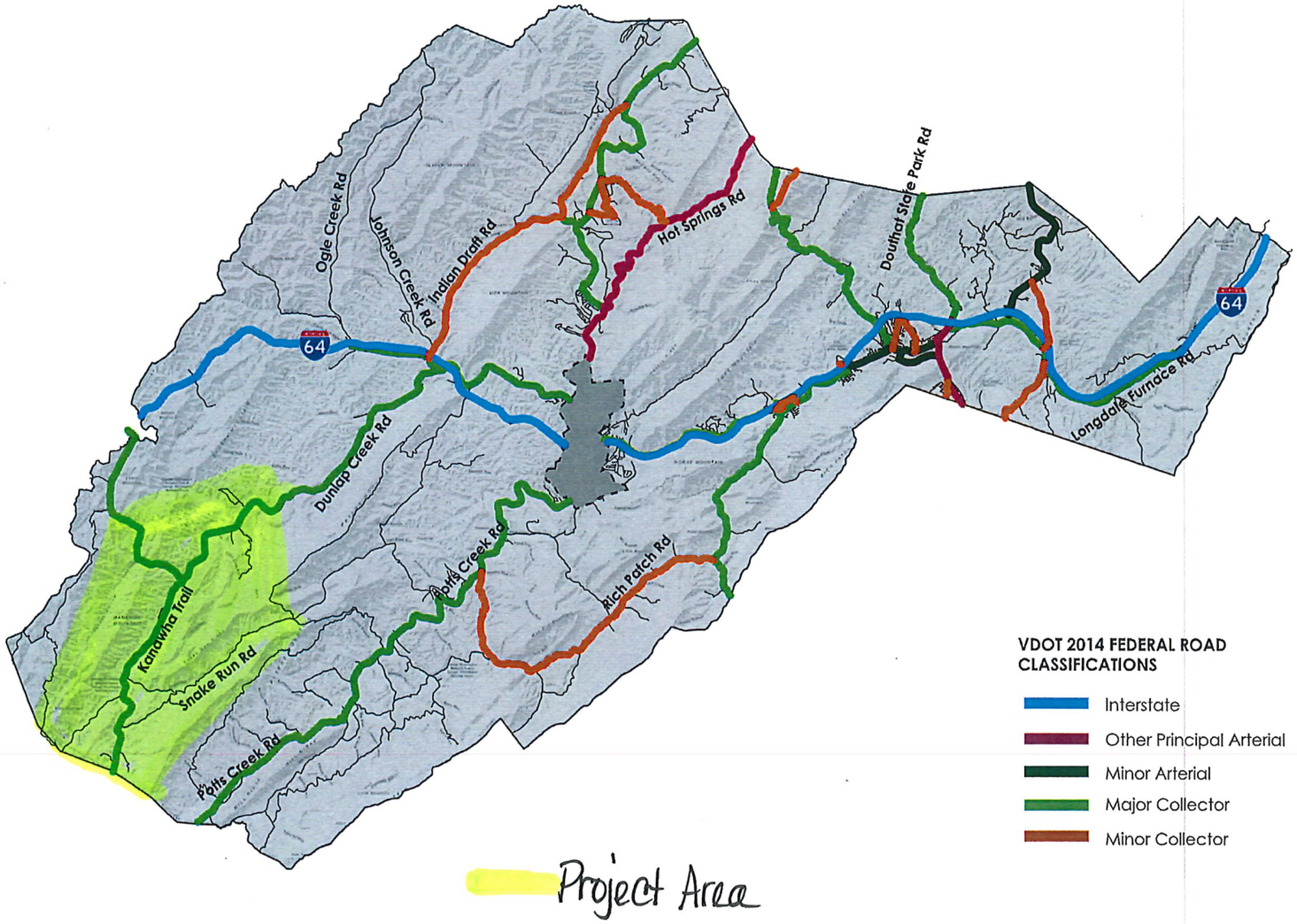
Dunlap Creek
18
311
Boiling Springs
George Washington National Forest
Bellinger
Barbours Creek NF Wilderness Area
Layers
Network Barrier Tools
Fault Finder
Print
Draw
Measurement
Area
Distance
Location
Measurement Result
40.4 Sq Miles
Bookmarks
Zoom To Coordinates

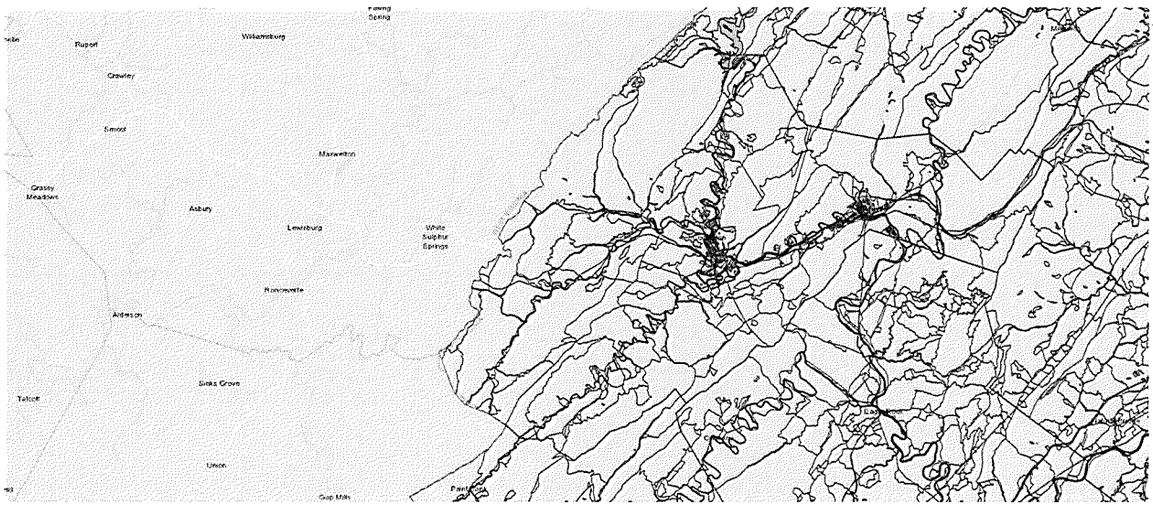
▼ MAP 5.1 ALLEGHANY COUNTY FEDERAL ROAD CLASSIFICATIONS



Attachment 2 - Documentation of Federal Funding

There are no CAF awarded CBG's in the project area. There are no identified RDOF CBG in the project area. CBEC does not have any RDOF or CAF in the project area.

The Alleghany County Broadband Coverage map produced by Commonwealth Connection shows no service existing within the proposed project area. Lumos is currently covering 79% of the county with their broadband service.



Census Block (2010)

ID: 510050803022061

All broadband information is reported based on coverage at the census block level.

VA Collected • Dec 2021 | FCC Form 477 • Dec 2020

Broadband Coverage

0% of addresses in this Census block are served

Internet Service Providers

There is no reported broadband service in this area.

Localities & Jurisdictions

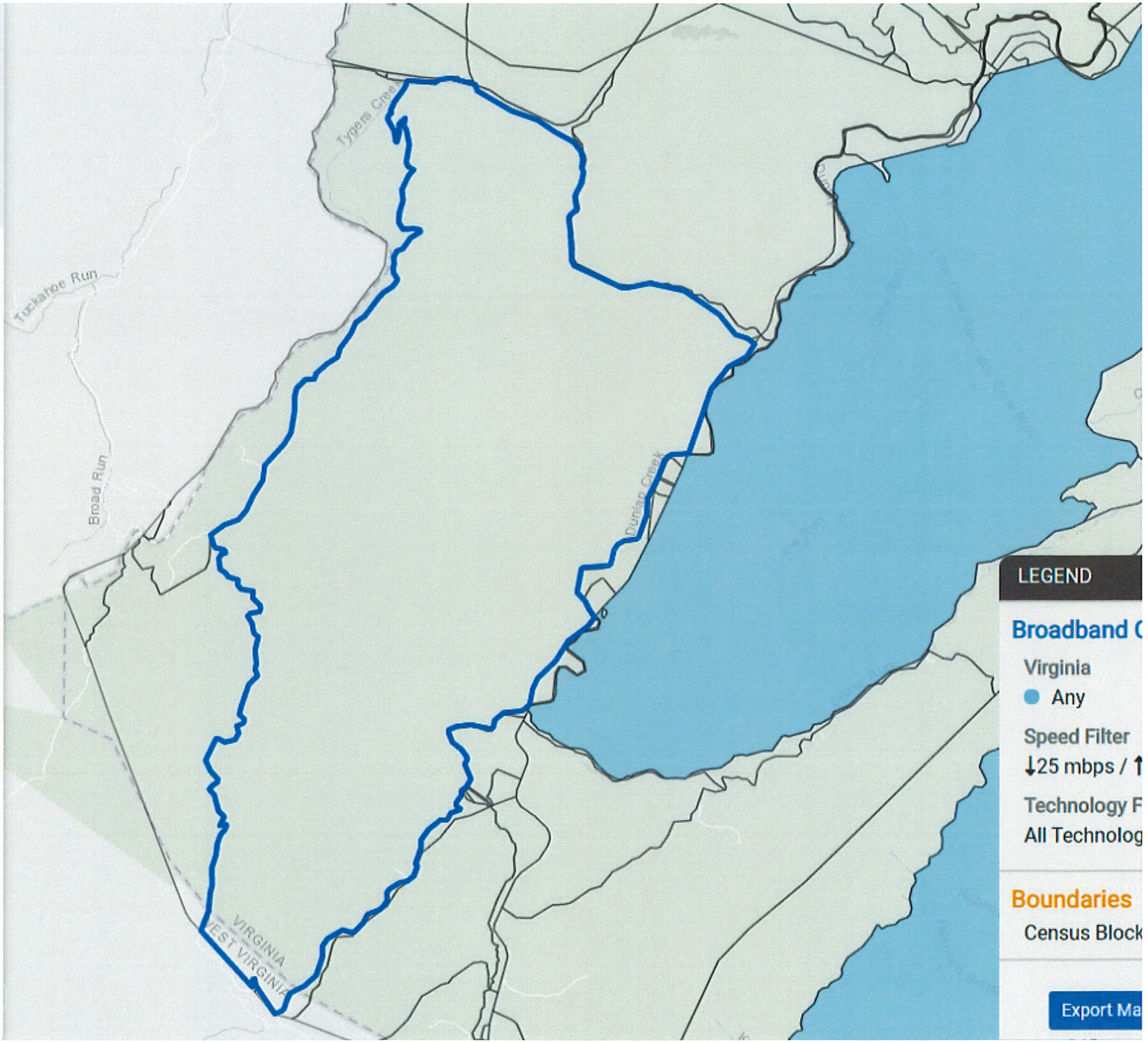
Locality: Alleghany County »

Virginia State Senate: State Senate District 25 »

Virginia House of Delegates: State House District 19 »

US Congressional District: Congressional District 9 »

School: Alleghany County Public Schools »



2023 Virginia Telecommunication Initiative (VATI)
Passing Form

Type of Passings	Total Number of Passings in the Project Area [1]	Passings in the Project Area, without Special Construction Costs Required[2]	Passings with Special Construction Costs budgeted in the Application [3]	Number of Passings with Speeds at 25/3 or below in Project Area [4]
Residential	351	0	351	351
Businesses (non-home based)	1	0	1	1
Businesses (home-based)	10	0	10	10
Community Anchors	0	0	0	0
Non-residential	3	0	3	3
Total	365	0	365	365

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

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

[1] The total number of structures in the project area that can receive service. See definition of passing below for more detail.
[2] The number of structures in the project area that will not require special construction costs to provide service to. These passings fall within the broadband provider's standard service connection drop length and do not require nonstandard equipment or any additional fees above normal service connection fees required to provide broadband access to a premise.
[3] The number of structures in the project area with all construction costs budgeted in the application. These passings will not require any additional special construction costs beyond those budgeted for in the VATI application.
[4] The number of structures in the project area that do not have access to internet at speeds of at least 25 mbps download and 3 mbps upload.

Definitions

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

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

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

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

2023 Virginia Telecommunication Initiative (VATI)
RDOF Passings Form

Type of Passings	Total Number of Passings in the Project Area that lie within Preliminarily Awarded RDOF Areas [1]
Residential	N/A
Businesses (non-home based)	N/A
Businesses (home-based)	N/A
Community Anchors	N/A
Non-residential	N/A
Total Number of RDOF Passings	N/A

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

Definitions

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

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

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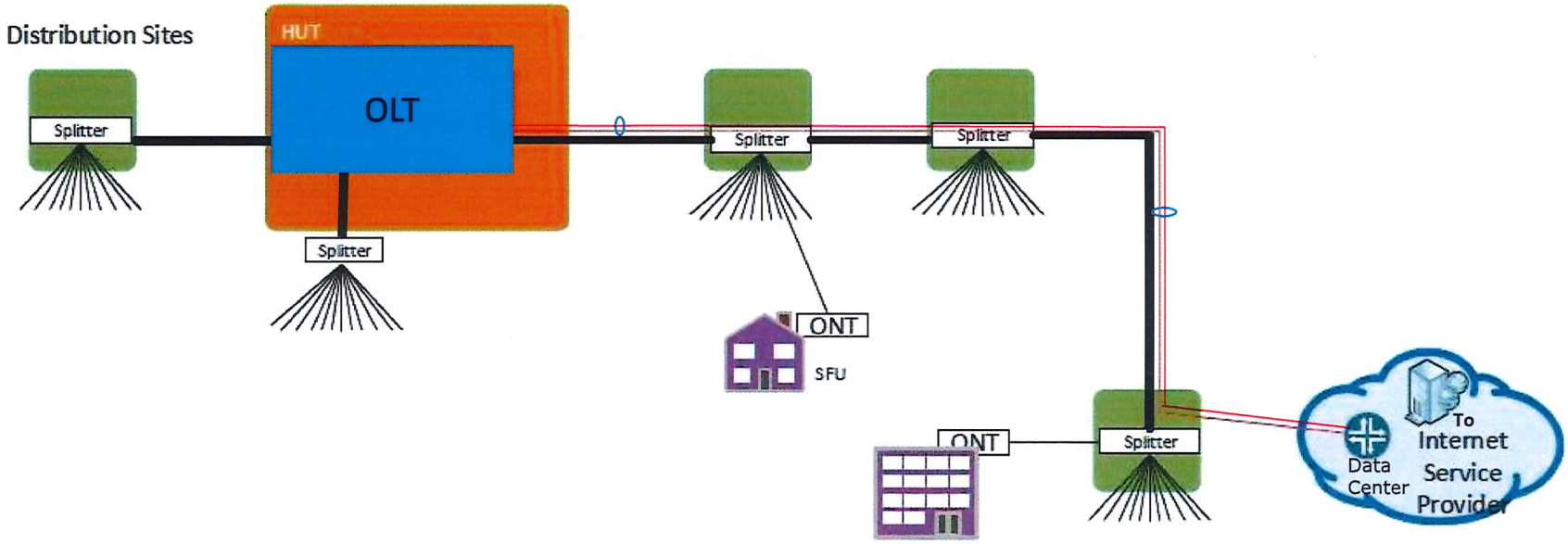
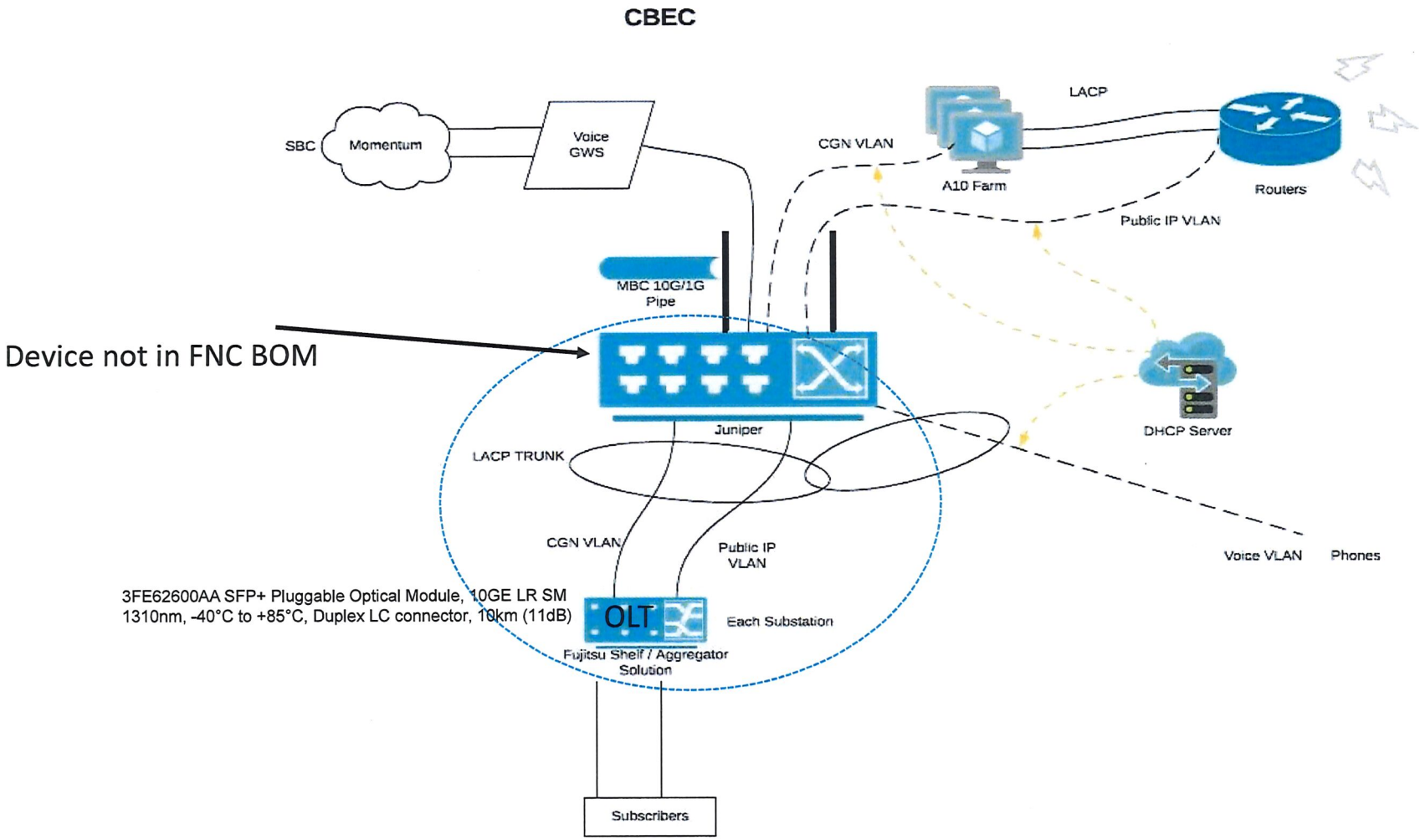
Non-Residential Passing – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

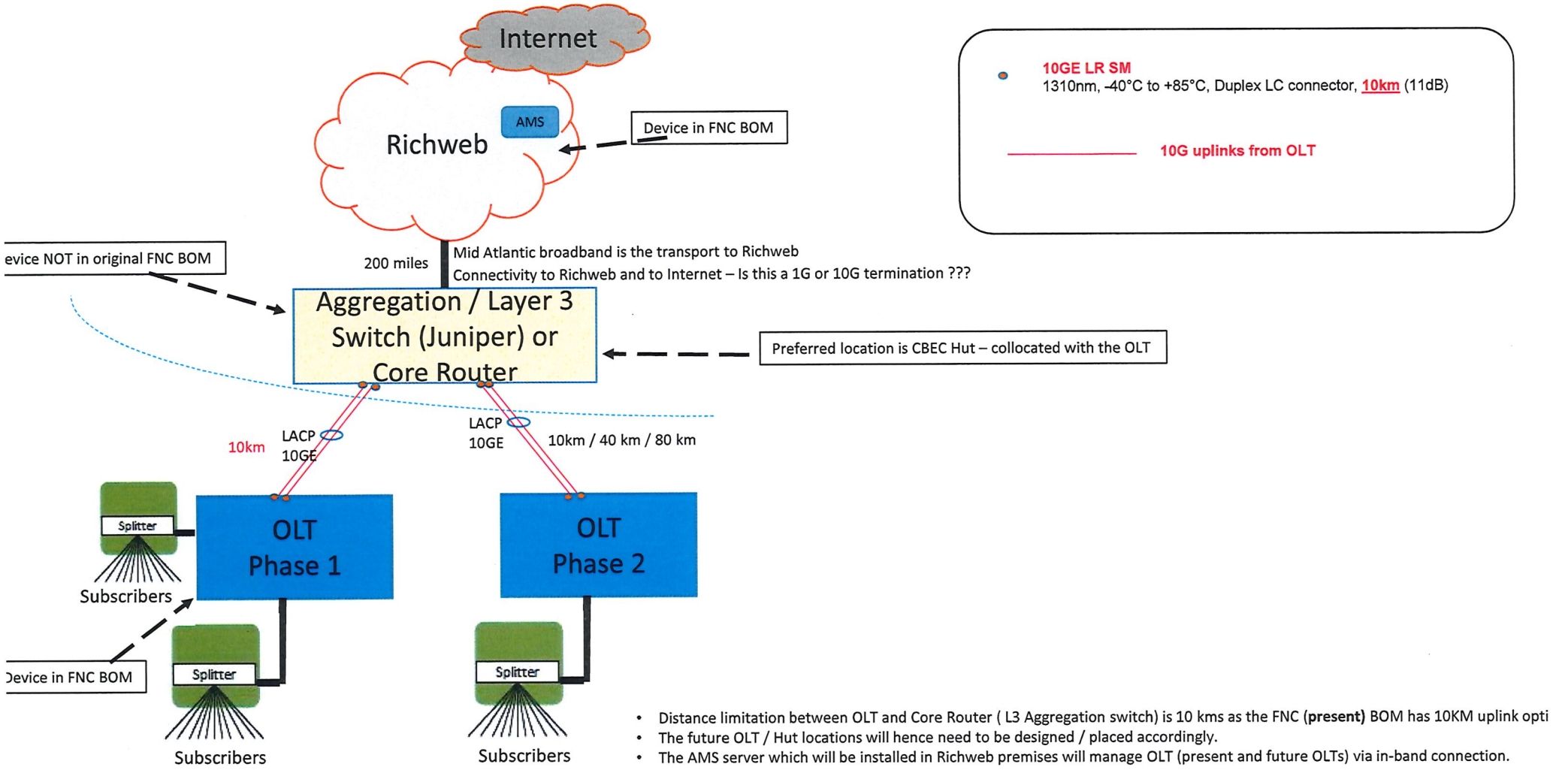
Private Broadband - CBEC



A typical FTTx Architecture

Original Richweb Design





- Distance limitation between OLT and Core Router (L3 Aggregation switch) is 10 kms as the FNC **(present)** BOM has 10KM uplink opti
- The future OLT / Hut locations will hence need to be designed / placed accordingly.
- The AMS server which will be installed in Richweb premises will manage OLT (present and future OLTs) via in-band connection.

Nokia WiFi Gateway 3

Gateway for the intelligent mesh network – G-240W-E

The Nokia WiFi Gateway 3 is the most advanced solution for whole home Wi-Fi networking delivered by Gigabit Passive Optical Network (GPON). This premium class Nokia WiFi gateway operates seamlessly, together with the Nokia WiFi beacons, to create a whole home coverage mesh network backhauled by wired Ethernet or Wi-Fi. The end-user experience with the intelligent self-organizing mesh system is enhanced by a service provider's Wi-Fi care capabilities in the cloud and intuitive home user support using the Nokia mobile app.

The Nokia WiFi Gateway 3 is the optimal one-box solution integrating the optical network terminal (ONT) and Wi-Fi mesh functions to bring ultra-broadband service to and into the home. The device has Nokia state-of-the-art intelligent self-organizing mesh and built-in edge analytics over concurrent dual-band Wi-Fi that delivers a whole home optimal link to the connected equipment. It can provide triple play services with voice, video and data, while its unique spectrum monitoring and interference detection ensure an overall top quality experience.

In combination with the Nokia 7360 Intelligent Services Access Manager (ISAM)/7342 ISAM and Lightspan optical line terminals (OLTs), the gateway forms a uniform end-to-end industry-leading access network solution to ensure carriers deliver the highest satisfaction to their subscribers.

Next to the regular ONT management control interface (OMCI) and TR-069 remote device management, operators acquire control over the home Wi-Fi solution through the one-click Nokia WiFi home portal. The portal presents a holistic view of the in-home network to help desk agents, assisting them in easy identification and instantaneous resolution of issues as well as offering recommendations for operator upsell opportunities.

The Nokia WiFi mobile app provides home users with an intuitive and simplified interface for trouble-free management of their home network and Wi-Fi. It also provides advanced functions such as guest Wi-Fi management and parental controls.

NOKIA

Features

- GPON uplink, G.984, G.988 series standard compliant
- Bridge and router mode, TR-069 support
- Supports full triple play services including voice, video and high-speed internet access (HSIA)
- Dual-band concurrent IEEE 802.11b/g/n 3x3 2.4 GHz and 802.11ac 4x4 5 GHz
- Nokia intelligent mesh
- Embedded edge analytics
- Real-time wireless spectrum analysis

Benefits

- PHY rate up to 750 Mb/s for 2.4 GHz and 2170 Mb/s for 5 GHz (with 1024 QAM capable clients)
- Mesh topology and intelligent mesh routing
- Self-healing, self-optimizing network
- Band steering, channel optimization
- Seamless roaming for IEEE 802.11k/v/r capable or legacy clients
- Embedded range boost technology to significantly extend absolute range
- Insight on home network and recommendations for operator assisted care and end user self-care
- Real-time wireless spectrum scan and analysis
- Allows service per port configurations
- High quality of service (QoS) video over Wi-Fi
- Ease of setup and user intuitive information
- Optimized fiber routing and protection

Technical specifications

Physical

- Height: 200 mm (7.9 in)
- Diameter: 94 mm (3.7 in)
- Weight: 0.84 kg (1.9 lb)

Installation

- Desktop mounting

Operating environment

- Temperature: -5°C to 45°C (23°F to 113°F)
- Relative humidity: 5% to 95%, non-condensing

Power requirements

- Local powering with 12 V/3A DC input (external AC/DC adapter)
- Dying gasp support
- Power consumption: <36 W
- Uninterruptible power supply (UPS) connector

GPON uplinks

- Wavelength: 1490 nm downstream, 1310 nm upstream
- Line rate: 2.488 Gb/s downstream, 1.244 Gb/s upstream
- GPON Encapsulation Method (GEM) mode support for IP/Ethernet service traffic support
- ITU-T G.984.3-compliant dynamic bandwidth report (DBR)
- ITU-T G.984.3-compliant Advanced Encryption Standard (AES) in downstream
- ITU-T G.984.3-compliant forward error correction (FEC)
- ITU-T G.988 Appendix 1 and Appendix 2 OMCI
- Flexible software image management
- SC/APC connector

POTS interfaces

- Two FXS ports for voice over IP (VoIP) service with RJ-11 connectors
- Multiple codecs: ITU-T G.711, ITU-T G.729 (A and B)
- Session Initiation Protocol (SIP) (RFC 3261)
- ITU-T G.168 echo cancellation
- Services: caller ID, call waiting, call hold, 3-way call, call transfer, message waiting indication
- Maximum 5 ringer equivalency numbers (RENs) per line

- Dual-tone multi-frequency (DTMF) dialing
- Balanced sinusoidal ring signal, 55 V root mean square (RMS)

WLAN interfaces

- Supports 3x3 802.11b/g/n 2.4 GHz wireless LAN (WLAN) interface
- Supports 4x4 802.11ac 5 GHz WLAN interface with multi-user multiple input, multiple output (MU-MIMO)
- Maximum effective isotropic radiated power (EIRP) on 2.4 GHz up to 500 mW and 5 GHz up to 1 W
- 64-bit and 128-bit Wired Equivalent Privacy (WEP) support
- Wi-Fi Protected Access (WPA) support including Pre-Shared Key (WPA-PSK) and WPA2
- Media access control (MAC) filters

USB interface

- Two USB 2.0 interfaces support external disk drives and home network attached storage (NAS)

Residential gateway

- IPv4 and IPv6 connectivity: Dual stack and DS Lite, stateless and stateful auto-configuration, DHCPv6 prefix delegation
- Point-to-Point Protocol over Ethernet (PPPoE) and IP over Ethernet (IPoE)
- Network Address Translation (NAT), demilitarized zone (DMZ) and firewall
- Dynamic Host Configuration Protocol (DHCP) and domain name system (DNS) proxy
- Internet Group Management Protocol (IGMP) v2/v3 proxy/Multicast Listener Discovery (MLD) proxy
- Supports virtual private network (VPN) pass-through for Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IPSec
- Port forwarding and DMZ/dynamic domain name system (DDNS)
- Flexible video delivery options of Ethernet or wireless to set-top boxes (STBs)
- Dual TR-069 connectivity for independent remote device and Wi-Fi management

LEDs

- Simple and intuitive status indication by colored light on top of device
- GPON link status
- VoIP status

Safety and electromagnetic interference (EMI)

- Protection of over voltage/current

Regulatory compliances

- UL 62368-1
- CSA C22.2 No. 62368-1
- FCC
- CE
- FDA laser register
- Wi-Fi Alliance certified

About Nokia

We create the technology to connect the world. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing.

From the enabling infrastructure for 5G and the Internet of Things, to emerging applications in digital health, we are shaping the future of technology to transform the human experience. networks.nokia.com

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Tel. +358 (0) 10 44 88 000

Document code: SR1802022284EN (April)

PROPOSED TIMELINE

TASK	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Approval/Award/Release Funding																		
Project Planning																		
Design & Engineering																		
Design & Engineering Finalized																		
Fiber Build																		
Market Launch																		

PROJECT MANAGEMENT

Name	Title	Organization	Role and Responsibilities	Background
Reid Walters	County Administrator	Alleghany County	Program Administrator. Oversee overall implementation and management of the project.	Has previous experience with DHCD grants, as well as Federal and State grants.
Suzanne Adcock	Director of Finance	Alleghany County	Financial Officer. Manage financial records, payment of invoices, etc.	Has previous experience with DHCD grants.
Melissa Munsey	Administrative Asst.	Alleghany County	Grant Manager. Requests for disbursements, reporting, etc.	Has previous experience with DHCD grants.
Shannon Cox	Board of Supervisors	Alleghany County	Board and Community Liaison. Involved in meetings and keeping the community informed, etc.	Member of Board of Supervisors for 11 years.
Ray Lipes	Retired	Lumos Networks	Consulting Member. Share knowledge of infrastructure.	Oversaw the Lumos Fiber Broadband Project as Senior Manager.
Jeff Ahearn	CEO	Craig-Botetourt Electric Cooperative	Project Manager CBEC. Oversee overall management of the project.	Has experience with previous VATI grants.
Others (CBEC)	See attached listing of support staff from CBEC to be involved in the project.			

CBEC SUPPORT STAFF/PROJECT TEAM

Name	Title	Project Role	Project Responsibilities
Jeff Ahearn	CEO, Craig-Botetourt Electric Cooperative	Project Manager CBEC	Overall manager of project
Mack McCaleb	Manager of Electric Distribution Services, Craig-Botetourt Electric Cooperative	Construction Coordinator	Coordinates construction of fiber facilities with Fujitsu
Tim Kaczmarski, CPA, CGMA	Director of Business Services, 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
Anthony Bednarczyk	Broadband Executive Engagement Leader, Fujitsu	Construction Collaborator	Constructs fiber facilities
T.B.D.		Construction Project Manager Fujitsu	Manager of the construction/sub-contractors
Dave Keller	Vice President of Sales & Business Development, Mid-Atlantic Broadband Communities Corporation	Construction Collaborator	Coordinates access to fiber backbone
Mark Lea	RichWeb/Pixel Factory	Access Lead	Coordinates internet access

MEMORANDUM OF UNDERSTANDING BETWEEN THE COUNTY OF ALLEGHANY, VIRGINIA, COVINGTON-ALLEGHANY COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY, VIRGINIA, AND CRAIG-BOTETOURT ELECTRIC COOPERATIVE FOR APPLYING FOR VIRGINIA TELECOMMUNICATIONS INITIATIVE FUNDING FOR PROVIDING BROADBAND SERVICES

I. PARTIES AND PURPOSE

This Memorandum of Understanding (MOU) is made and entered into as of the _____ day of August 2022, by and between Alleghany County, Virginia (the "County"), a political subdivision of the Commonwealth of Virginia, the Covington-Alleghany County Industrial Development Authority of Alleghany County, Virginia (the "Authority"), a political subdivision of the Commonwealth of Virginia, and the Craig-Botetourt Electric Cooperative ("CBEC"), a Virginia consumer utility cooperative, for the purpose of creating a partnership to prepare and submit an application for grant funding through the Virginia Telecommunications Initiative (VATI) the Virginia Department of Housing and Community Development in an effort to expand and improve broadband services to the citizens of Alleghany County, Virginia.

The County and Authority recognize that in order to attain and maintain a high-quality level of broadband service to the citizens of Alleghany County, a close working relationship with the private internet providers is desirable and will be made possible in large part through state and federal grant funding opportunities.

The Authority is a political subdivision of the Commonwealth of Virginia, authorized to make grants for the purposes of promoting industry, developing trade, and inducing manufacturing, industrial, governmental, nonprofit and commercial enterprises and institutions to locate, remain, or expand facilities in the Commonwealth, under Section 15.2-4905 of the Code of Virginia, 1950, as amended.

The County wishes to make certain funds available to the Authority, and the Authority wishes to make a grant to CBEC, for the purposes of incentivizing CBEC to expand its facilities in Alleghany County, increase jobs and employment, enhance learning opportunities for students, and otherwise expand the tax base of the County while simultaneously assisting in preserving public health in the midst of the COVID-19 crisis.

II. SCOPE OF WORK

The County, Authority, and CBEC desire to cooperatively work together to prepare and apply for grant funding through the 2022 Virginia Telecommunications Initiative (VATI) Funding Program managed by the Virginia DHCD to provide fiber broadband service in several areas of the County by extending their existing fiber network. The application for funding anticipates

coverage to be made available to approximately ____ households and businesses in the County that are currently unserved/underserved. Service is envisioned to be provided through the following infrastructure improvements:

- Placement of approximately _____ linear feet of underground fiber optic cable.
- Placement of approximately _____ linear feet of aerial fiber optic cable.
- Associated construction and make-ready work.

The County and CBEC agree to provide the necessary funding to construct the projects above to deliver internet service to the homes/businesses in these areas by providing minimum average internet speeds ranging from 50 Mbps/50 Mbps to 1 Gbps. The total cost of these projects is estimated at $_____.

To obtain necessary project funding, the County agrees to complete a grant funding application, with assistance from CBEC through the DHCD VATI Funding Program requesting $_____ (___% of the estimated project cost) to be allocated to the above projects. The County will contribute not more than $_____ (___% of the estimated project cost) toward completion of the projects. CBEC agrees to provide the remaining project funding to complete the above projects (which is anticipated to be ___% of the project cost).

The parties confirm that a detailed agreement shall be executed if funding is approved to outline all the obligations of the County, Authority, and CBEC and providing performance guarantees for service delivery and maintenance. If funding is approved from DHCD, the parties confirm and understand that CBEC will be responsible for providing the remaining of the funding necessary to complete the project for which DHCD funding was received.

Signatures on following page

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding on the day, month, and year indicated:

FOR ALLEGHANY COUNTY, VIRGINIA:

By: _____
_____, County Administrator

COMMONWEALTH OF VIRGINIA
COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this ____ day of August, 2022 by _____, on behalf of Alleghany County, Virginia.

My commission expires _____

Registration No. _____

Approved as to form:

By: _____
_____, County Attorney

FOR THE COVINGTON-ALLEGHANY COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY OF ALLEGHANY COUNTY:

By: _____
_____Chairman

COMMONWEALTH OF VIRGINIA
COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this ____ day of August, 2022 by _____, on behalf of the Covington-Alleghany County Industrial Development Authority of Alleghany County, Virginia.

My commission expires _____

Registration No. _____

FOR CRAIG-BOTETOURT ELECTRIC COOPERATIVE:

By: _____
[name]
[title]

COMMONWEALTH OF VIRGINIA
COUNTY OF _____, to wit:

The foregoing instrument was acknowledged before me this ____ day of August, 2022 by _____, on behalf of CBEC.

My commission expires _____

Registration No. _____

(2)

CRAIG-BOTETOURT
ELECTRIC COOPERATIVE

August 11, 2022

Reid Walters, MPA, ICMA-CM
County Administrator
Alleghany County Governmental Complex
9212 Winterberry Ave., Suite C
Covington, VA 24426

Dear Mr. Walters,

We are pleased to partner with Alleghany County to apply for funding to extend broadbandand VoIP service to unserved residents through the VATI program.

Craig-Botetourt Electric Cooperative is a member/customer owned electric distribution utility licensed to provide electric service in Virginia and West Virginia. We serve over 7,200 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 July 31,2022, the Cooperative had a total utility plant of $50.1 million. We have annual electric distribution sales of around $12 million. We currently finance our construction projects from three different organizations USDA's Rural Utilities Service (RUS), National Rural Utilities Cooperative Finance Corporation, and CoBank. The Cooperative is governed by a six-member electedboard of directors and managed by a CEO who reports to the board.
Craig-Botetourt Electric's wholly owned subsidiary, Craig-Botetourt Energy & Home Services, LLC, dba, Bee Online Advantage, is our broadband and VoIP service provider subsidiary.

Please accept this letter and our current USDA RUS Form 7, for our financial statement documentation.

Sincerely,

Jeff Ahearn
CEO, Craig-Botetourt Electric Cooperative &Bee Online Advantage

June 2022

Jun-22							
ITEM	YEAR-TO-DATE				CURRENT MONTH		
	LAST YEAR ACTUAL (a)	THIS YEAR ACTUAL (b)	YTD BUDGET (c)	YTD ACT - YTD BUDG (c)	ACTUAL (d)	BUDGET (e)	ACT - BUDG (f)
1.Operating Revenue and Patronage Capital	6,702,905	7,492,212	7,233,384	3.6%	1,105,889	1,083,164	2.1%
2.Power Production Expense	0						
3.Cost of Purchased Power	3,215,464	3,578,994	3,485,271	2.7%	473,379	504,141	-6.1%
4.Transmission Expense							
5.Regional Market Expense							
6.Distribution Expense - Operation	536,712	424,850	495,991	-14.3%	52,447	89,944	-41.7%
7.Distribution Expense - Maintenance	715,953	814,767	818,571	-0.5%	155,001	155,712	-0.5%
8.Customer Accounts Expense	195,078	262,728	272,438	-3.6%	40,447	46,814	-13.6%
9.Customer Service and Informational Expense	56,744	0	0	0.0%			0.0%
10.Sales Expense							
11.Administrative and General Expense	684,585	925,644	721,407	28.3%	147,180	121,595	21.0%
12.Total Operation & Maintenance Expense (*2 thru 11*)	5,404,536	6,006,983	5,793,678	3.7%	868,454	918,206	-5.4%
13.Depreciation and Amortization Expense	585,400	635,510	624,479	1.8%	109,274	107,126	2.0%
14.Tax Expense - Property & Gross Receipts	0	100,577	85,200		16,335	14,200	15.0%
15.Tax Expense - Other	1,994	4,709	4,500	4.6%	1,501	750	100.1%
16.Interest on Long-Term Debt	349,395	356,186	378,984	-6.0%	81,544	63,683	28.0%
17.Interest Charged to Construction - Credit							
18.Interest Expense - Other	10,111	11,113	9,000	23.5%	1,447	1,500	-3.6%
19.Other Deductions		3,127	4,000		100	667	-85.0%
20.Total Cost of Electric Service (*12 thru 19*)	6,351,436	7,118,205	6,899,841	3.2%	1,078,655	1,106,131	-2.5%
21.Patronage Capital & Operating Margins (*1 minus 20*)	351,469	374,007	333,543	12.1%	27,234	(22,967)	-218.6%
22.Non Operating Margins - Interest	6,333	11,800	6,000	96.7%	3,313	1,000	231.3%
23.Allowance for Funds Used During Construction							
24.Income (Loss) from Equity Investments	(60,032)	44,766	26,415	100.0%	8,581	8,830	100.0%
25.Non Operating Margins - Other	269	63,274	63,000	0.4%	10,546	10,500	0.4%
26.Generation and Transmission Capital Credits							
27.Other Capital Credits and Patronage Dividends	1,342	4,575	3,000	52.5%	0	500	0.0%
28.Extraordinary Items							
29.Patronage Capital or Margins (*21 thru 28*)	299,381	498,422	431,958	15.4%	49,674	(2,137)	-2424.1%

PART C. BALANCE SHEET			
ASSETS AND OTHER DEBITS		**LIABILITIES AND OTHER CREDITS**	
1. Total Utility Plant in Service	49,803,546	30. Memberships	31,150
2. Construction Work in Progress	310,748	31. Patronage Capital	13,568,649
3. Total Utility Plant *(1 + 2)*	50,114,293	32. Operating Margins - Prior Years	
4. Accum. Provision for Depreciation and Amort.	15,188,799	33. Operating Margins - Current Year	378,582
5. Net Utility Plant *(3 - 4)*	34,925,495	34. Non-Operating Margins	619,530
6. Non-Utility Property (Net)	7,276	35. Other Margins and Equities	369,603
7. Investments in Subsidiary Companies	(210,073)	**36. Total Margins & Equities** *(30 thru 35)*	14,967,514
8. Invest. in Assoc. Org. - Patronage Capital	158,121	37. Long-Term Debt - RUS (Net)	496,887
9. Invest. in Assoc. Org. - Other - General Funds		38. Long-Term Debt - FFB - RUS Guaranteed	22,766,963
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	406,377	39. Long-Term Debt - Other - RUS Guaranteed	
11. Investments in Economic Development Projects		40. Long-Term Debt Other (Net)	1,218,058
12. Other Investments	124,254	41. Long-Term Debt - RUS - Econ. Devel. (Net)	
13. Special Funds		42. Payments – Unapplied	
14. Total Other Property & Investments *(6 thru 13)*	485,955	**43. Total Long-Term Debt** *(37 thru 41 - 42)*	24,481,909
15. Cash - General Funds	3,763,575	44. Obligations Under Capital Leases - Noncurrent	248,113
16. Cash - Construction Funds - Trustee	5	45. Accumulated Operating Provisions	
17. Special Deposits		**46. Total Other Noncurrent Liabilities** *(44 + 45)*	248,113
18. Temporary Investments		47. Notes Payable	
19. Notes Receivable (Net)		48. Accounts Payable	822,762
20. Accounts Receivable - Sales of Energy (Net)	1,226,290	49. Consumers Deposits	212,074
21. Accounts Receivable - Other (Net)	433,185		
22. Renewable Energy Credits		50. Current Maturities Long-Term Debt	867,188
23. Materials and Supplies - Electric & Other	762,582	51. Current Maturities Long-Term Debt - Economic Development	
24. Prepayments	51,449	52. Current Maturities Capital Leases	40,911
25. Other Current and Accrued Assets	119,953	53. Other Current and Accrued Liabilities	588,909
26. Total Current & Accrued Assets *(15 thru 25)*	6,357,039	**54. Total Current & Accrued Liabilities** *(47 thru 53)*	2,531,844
27. Regulatory Assets	381,335	55. Regulatory Liabilities	0
28. Other Deferred Debits	79,557	56. Other Deferred Credits	
29. Total Assets and Other Debits *(5 +14 + 26 thru 28)*	42,229,380	**57. Total Liabilities and Other Credits** *(36 + 43 + 46 + 54 thru 56)*	42,229,380

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	$3,176,057.00	80%	Pending
CBEC	$394,690.90	10%	Secured
Alleghany County	$396,161.10	10%	Secured
	$		
	$		
	$		
	$		
TOTAL	**$3,966,909.00**	**100%**	

Attachment 10: "Documentation of Match Funding"

Craig-Botetourt Electric Company will be providing the planning, engineering, materials, and labor for the installation of the infrastructure necessary to complete this project. CEBC will be working with Lumos, who will be making capital upgrades to complete their hardware, transport, and options extension to this portion of the county. This cost for CBEC will be $394.690.90

The Alleghany County Board of Supervisors has appropriated ARPA dollars in their budget. If approved, the county will encumber $396,160.90 of ARPA funds for their 10% of total project costs.

Attachment 11 – Prior Expended Match Form

Local Government expenditures incurred after June 2, 2021, one year prior to the application open date, are eligible to be included in the application as match funds. Incurred expenses must be related to the proposed VATI project and meet VATI criteria. Expenditures incurred by internet service providers after December 13, 2021 are also eligible to be included in the application as match funds. For these match funds to be considered, the co-applicant internet service provider and local government applicant must have been unsuccessful in the FY22 round of VATI. Please complete the table below to explain any prior expended funds which have been considered as matching funds in this application. Incurred expenses must also be directly related to the proposed VATI project and meet VATI criteria. DHCD staff reserves the right to make administrative determinations on the validity of matching funds and accept a proportion of the funds when necessary.

Prior Expended Match Table				
Expense Incurred By: (Local Government or Internet Service Provider)	Source: (Local, State, Federal, Other, Loan, etc.) Please list fund source (i.e. Local Fiscal Recovery Fund)	Amount:	Brief Description: (Construction, Administration Expenses, or Other)	How is this expense directly related to the proposed VATI project? If more space is needed, please describe in detail below the table with numbered references in the cells below.
N/A				

CDBG Derivation of Cost

Product	Total	VATI	Non-VATI	Source of Estimate	Date
Program Management	$ 389,659.82	$ 187,035.80	$ 202,624.02	Craig-Botetourt Electric Company	8/22/2022
Program Management - Alleghany County	$ 20,000.00	$ -	$ 20,000.00	Alleghany County	8/22/2022
Performance Bond	$ 40,753.65	$ -	$ 40,753.65	Craig-Botetourt Electric Company	8/22/2022
OSP Engineering	$ 143,281.00	$ 121,788.85	$ 21,492.15	Craig-Botetourt Electric Company	8/22/2022
ISP Equipment	$ 244,331.31	$ 207,681.61	$ 36,649.70	Craig-Botetourt Electric Company	8/22/2022
Drop Installation	$ 36,002.00	$ 30,601.70	$ 5,400.30	Craig-Botetourt Electric Company	8/22/2022
OSP Construction - Ariel	$ 1,713,214.22	$ 1,456,232.09	$ 256,982.13	Craig-Botetourt Electric Company	8/22/2022
Underground Construction	$ 753,820.00	$ 640,747.00	$ 113,073.00	Craig-Botetourt Electric Company	8/22/2022
OSP Construction - Fiber Splicing and Testing	$ 217,565.00	$ 184,930.25	$ 32,634.75	Craig-Botetourt Electric Company	8/22/2022
LUMOS Extension - Construction	$ 408,282.00	$ 347,039.70	$ 61,242.30	Craig-Botetourt Electric Company	8/22/2022
	$ 3,966,909.00	**$ 3,176,057.00**	**$ 790,852.00**		
	100%	***80%***	***20%***		

Fujitsu Network Communications Proposal

To

Craig-Botetourt Electric Cooperative (CBEC)

For

Alleghany County Broadband (BB) Path

Design, Engineering, Construction, and Maintenance

1. INTRODUCTION

This proposal describes the design plan and unit pricing utilized to deliver to CBEC in support of its Alleghany County BB Path project. The success of this project relies heavily upon key CBEC employees and/or CBEC's advisors' involvement as part of the engagement team.

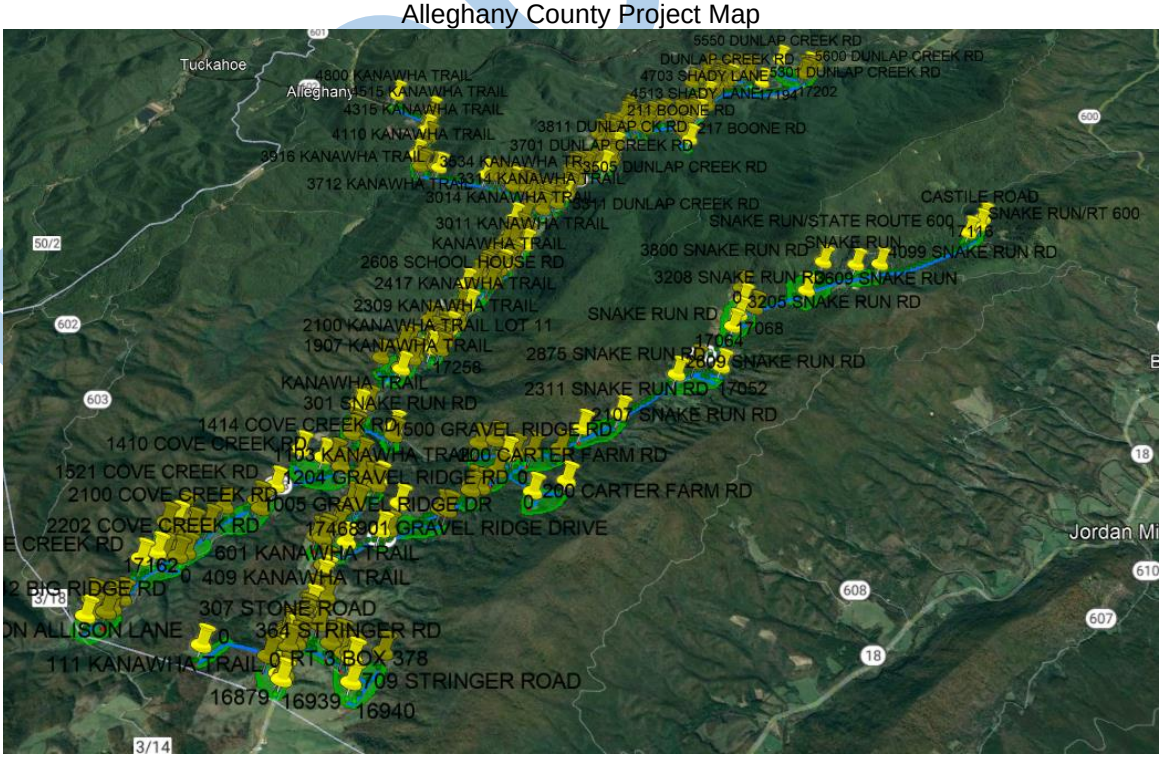
Estimated breakout of the addresses within the Alleghany BB Path footprint:

Name of Boundary	# Residential addresses	Total Addresses	# Of ONTs (50% take rate)
Alleghany County Mainline	365	365	182

Construction Design Assumptions

- 145,695 feet (27.59 Miles) construction path footage
- 625 poles to attach
- 182 drops with a maximum of 500 feet
- Make-Ready is not included; CBEC will complete as required
- Fujitsu will supply ONTs and drop material
- CBEC will supply/perform drop installation labor for all drops

Alleghany County Project Map



2. SCHEDULE

Upon receipt of CBEC's purchase order, Fujitsu and CBEC will develop a mutually agreed detailed schedule for the services as defined in this proposal. It is anticipated that the build will take approximately 11 months to complete, depending upon moratoriums and material availability.

3. PRICING

Fujitsu's fixed unit price for the Program Management, Design, Engineering, Construction and Maintenance services for the Alleghany County BB Path project is defined below. The Work Unit quantities are budgetary estimates and are subject to change based on actual conditions found and on the duration of the project. Pricing is valid for 60 days. Bond discussions will take place upon award of the project.

Table 5-1 – Allegany County Pricing							
Unit ID	**Description**	**Short Description**	**Unit**	**Labor Unit Price**	**Material Unit Price**	**Qty Units**	**Total Price**
Program Management							
PM-18-PMO1	Program Management– Full project management, construction management and engineering services	PMO	MON	$ 35,423.62		11	$ 389,659.82
PM-18-BOND	Performance Bond	Bond	EA	$ 40,753.65		1	$ 40,753.65
OSP Engineering							
OSPE-11-1102	To include everything from preliminary design, basemap collection, data center boundaries, serving area boundaries, cabinet locations, underground and aerial routes, vault locations and sizes, AP locations and boundaries, splice enclosures types and locations, fiber cable routing and size of backbone, distribution and access level fiber. Design to minimize cost and maximize efficiency. Additional costs to cover purchasing will be included as an additional item.	ENG-HLD-High level design	HR	$ 335.41		80	$ 26,832.80
OSPE-11-1104	Includes the field walk and verification of constructible features of the design. Making adjustments to design or recommendation and supporting documentation to adjust designs. Review of addresses and base map features, Will also ensure delivery to homes and network access points are placed correctly. Activities to include high level design pole verification, utility verification, parcel verification, address verification, design verification, routing obstacles, aerial to underground percentage verification, AP placement, splice enclosure placement, cabinet placement. May include additional MOB (mobilization) to meet construction contractor if not known at time of engineering.	ENG-FE-Field Engineering ride out - UG SECTION	FT	$ 0.81		13000	$ 10,530.00
OSPE-11-1104	Includes the field walk and verification of constructible features of the design. Making adjustments to design or recommendation and supporting documentation to adjust designs. Review of addresses and base map features, Will also ensure delivery to homes and network access points are placed correctly. Activities to include high level design pole verification, utility verification, parcel verification, address verification, design verification, routing obstacles, aerial to underground percentage verification, AP placement, splice enclosure placement, cabinet placement. May include additional MOB (mobilization) to meet construction contractor if not known at time of engineering.	ENG-FE-Field Engineering ride out - AERSECTION	FT	$ 0.37		132695	$ 49,097.15
OSPE-11-1103	includes all design detail to engineer a backbone, middle mile, or fiber to the home network for an assigned area in order to produce a constructible plant which may include, but not limited to updating high level design with as-found conditions from the field engineering and make ready engineering. Identify permitting required based on high level design, perform any enviromental, historical or soil testing if required. Final design to include BOM, Splicing details, construction details, and all internal quality control is complete and the design is ready to hand over to construction teams for review.	ENG-LLD-Detailed design	FT	$ 0.26		145695	$ 37,880.70
OSPE-11-1109	As-builting - redline conversion to GIS format, as-built validation, updated splice schematics, updated splicing sheets	As Builts	FT	$ 0.13		145695	$ 18,940.35

ISP Equipment							
	Redundant FX-4/FANT-H Starter Kit VM, 16port Multi-PON Card, w/o optics. Each kit includes:	3HG01514VA	Each		$ 17,647.06	1	$ 17,647.06
	NFXS-E FX-4 shelf w/ BFAN-X					1	
	Filler FX 25mm without pre-cabling lot					4	
	ANSI FX-4 FIBER ROUTING					1	
	KIT-FX-4 ANSI VERT					1	
	ISAM FX 16port Multi-PON Line board					1	
	FANT-H,7360 ISAM FX 2600Gbps NT					2	
	Line Cards and Optics						
	ISAM FX 16port Multi-PON Line board			$ -	$ 9,411.76	1	$ 9,411.76
	ISAM FD/FX GPON SFP OLT (I-temp) Class B+			$ -	$ 123.53	18	$ 2,223.53
	GPON SFP C+ (I-temp) OLT			$ -	$ 174.12	5	$ 870.59
EQP-11-OLT	SFP+ Pluggable Optical Module, 10GE LR SM 1310nm, -40°C to +85°C, Duplex LC connector, 10km (11dB)			$ -	$ 249.41	4	$ 997.65
	SFP+ Pluggable Optical Module, 10GE ER SM 1550nm, -40°C to +85°C, Duplex LC connector, 40km (11dB)			$ -	$ 398.82	4	$ 1,595.29
	SFP+ Pluggable Optical Module, 10GE ZR SM 1550nm, -40°C to +85°C, Duplex LC connector, 80km (24dB)			$ -	$ 882.35	4	$ 3,529.41
	ONTs						
	G-2426G-B,NAR,US Plug,GPON ONT,2POTS,4xGE UNI,WIFI 6 4+4,Nokia Logo,secured boot			$ -	$ 158.82	182	$ 28,905.88
3EM23483AAAA	Element Management Software A5520 AMS and 5529 Apps - Starter System RTU per Subscriber				$ 8.24	182	$ 1,498.82
31N00064AA	Hosted WHW Portal Annual SaaS license for Cloud Controller: Home Console (NWCC L1) plus HDM – Nokia hosting Shared - Hosting Standard SLA				$ 9.66	182	$ 1,757.91
TBD	**Maintenance and RTU – 5 years**	Maint/RTU	EA	$ -	$ 13,402.71	1	$ 13,402.71
	Muni/IOC Remote Technical Support and Repair for Return - YR1					1	
	Muni/IOC Remote Technical Support and Repair for Return - YR2					1	
	Muni/IOC Remote Technical Support and Repair for Return - YR3					1	
	Muni/IOC Remote Technical Support and Repair for Return - YR4					1	
	Muni/IOC Remote Technical Support and Repair for Return - YR5					1	
	SSP-AMS, 7360, 7360/7368 per line RTU Year 1					182	
	SSP-AMS, 7360, 7360/7368 per line RTU Year 2					182	
	SSP-AMS, 7360, 7360/7368 per line RTU Year 3					182	
	SSP-AMS, 7360, 7360/7368 per line RTU Year 4					182	
	SSP-AMS, 7360, 7360/7368 per line RTU Year 5					182	
EFI-11-6101	Test and turn-up of OLT Cards	Test and Turn-up	EA	$ 27,167.63		1	$ 27,167.63
NDI-CONSULT	Professional Services - 20 Hour Blocks	Prof Svcs	EA	$ 15,369.23		4	$ 61,476.92
OSPI-11-OLT	OLT Installation	OLT Installation		$ 41,538.46	$ 32,307.69	1	$ 73,846.15
Drop Installation							
OSPI-15-15001	The average drop fiber length is 350 feet	SEAO-Placement of aerial drop fiber	EA		$ 197.82	182	$ 36,002
OSP Construction							
OSP Construction - Aerial Construction							
OSPI-6-06007(x)	Consists of one (1) foot of self supporting filled fiber optic cable in place including all supporting hardware, cable guards, insulating tapes, and bonding of the armor (if present) and supporting member	CFO(XX)-Place self-support aerial cable	Ft	$ 2.31	$ 5.80	182119	$ 1,476,695
OSPI-6-06005(1)	Place Snow Shoe	Snow Shoe	Ea	$ 276.92		121	$ 33,507
OSPI-2a-02019(F)	This includes clearing path for new route in areas where branches and limbs prevent installation of strand and fiber optic cable. 1 foot in length and (X)' in width	R1-(X)-Tree Trimming	Ea	$ 4.34		3981	$ 17,278
	Unit includes placing a 2 inch X 8' riser with all pole attachment hardware	BM81-Install riser	Ea	$ 69.23		2	$ 138.46
OSPI-8-08004	This unit consists of a Fiber Optic FDH mounted on a pole and all labor and materials required to complete the installation.	BDSO(XX)A-Placement of aerial FDH cabinet on utility pole	Ea	$ 1,476.92	$ 15,080.40	2	$ 33,115
OSPI-6-06004(mstv)	MST Placement at Pole	MST Placement	Ea	$ 83.08	$ 404.83	69	$ 33,666
OSPI-1-01011(1)	Install Down Guy and Auxillary Eye	Down Guy and Aux Eye	Ea	$ 221.54	$ 33.98	465	$ 118,816

Underground Construction							
	This includes directional drilling, pneumatic boring or trenching as well as all restoration of sod, asphalt, concrete and decorative landscaping for the project. The routes will be located in all areas of the ROW including, but not limited to: back of sidewalk, under sidewalk, in park strip and out in the road. The variances will depend on city and congestion of existing utilities in the ROW	BM60/61-Directional drilling standard conditions	Ft	$ 33.22	$ 1.22	13000	$ 431,800
OSPI-4a-04001(add)	Pulling fiber in all conduit. This also includes existing conduit	Pull additional conduit +1 or more	Ft	$ 2.45	$ 0.80	16250	$ 52,813
OSPI-4a-04004(M)	Consists of labor and material for one (1) buried handhole installed in place, including the base, top cover and mounting hardware, and pea gravel. These medium vaults are typically used for small transition points or splice closures for customer access points where 96 count fibers or less are spliced.	BHF(AA X AA)-Installing Medium Vault (base 24" x 36")	Ft	$ 833.33	$ 1,416.89	12	$ 27,003
OSPI-6-06004(mstv)		MST Placement in Pull Box	Ea	$ 127.45	$ -	2	$ 255
OSPI-6-06006		Place Ground Rod at structure & Knuckle	Ea	$ 176.47	$ 98.04	12	$ 3,294
OSPI-11-OLT	This covers placement of FDH with OLT cabinet and material cost	Placement of OLT cabinet	Ea	$ 6,274.51	$ 69,230.77	1	$ 75,505
OSPI-4a-0440	Consists of one (1) lineal foot of trenching, blasting, sawing, etc., measured parallel to the surface of the ground, in rock, including excavation, backfilling and tamping to place cable or wire to the depth specified on prints.	BM71-Rock adder	Ea	$ 62.75	$ -	2600	$ 163,150
OSP Construction - Fiber Splicing and Testing							
OSPI-7-07001(M)	Prep of medium sized splice closure, these are used for splicing multiport tails to access cables and small transition splicing (less than 96 fiber to splice)	HO8-Prep of Medium Fiber Optic Splice Closure	Ea	$ 461.54	$ 1,013.85	37	$ 54,589
OSPI-7-07001(D)	Prep of a large splice closure, these are used for large transition splicing (more than 96 fibers to splice)	HO8-Prep of Large Fiber Optic Splice Closure	Ea	$ 637.25	$ 773.85	47	$ 66,322
OSPI-7-07004	This unit contains the preparation of fiber cables into the LCP cabinet, along with the buffer tubes and fibers into the splice trays. The material price is for the optical splitters required at a 35% take rate.	HO4-Prep of a cabinet and all fibers terminating at cabinet	Ea	$ 646.15		3	$ 1,938
OSPI-7-07005	This unit contains the preparation of fiber cables into a rack or wall mount fiber termination panel.	BM-FDP-Prep of Fiber Termination Panel	Ea	$ 369.23		3	$ 1,108
OSPI-9-09001	Consists of all labor and material and/or testing necessary to complete a single fiber optic splice.Fusion splicing is required	HO1(1-48)-Splice 1-48 fibers	Ea	$ 55.38		457	$ 25,309
OSPI-9-09002	Consists of all labor and material and/or testing necessary to complete a single fiber optic splice. Fusion splicing is required	HO1(49-144)-Splice 49-144 fibers	Ea	$ 46.15		350	$ 16,153
OSPI-9-09003	Consists of all labor and material and/or testing necessary to complete a single fiber optic splice.Fusion splicing is required	HO1(145-432)-Splice 145-432 fibers	Ea	$ 36.92		848	$ 31,308
OSPI-10-10002	Perform power meter light source test on a fiber	HOT-Power Meter Test		$ 22.15		108	$ 2,392
OSPI-10-10001	This unit compensates for pre-testing of "owner furnished" fiber optic cable prior to placement with OTDR and a power meter light source	HOT-Test fiber	Ea	$ 17.08		1080	$ 18,446
					ESTIMATED GRAND TOTAL		$ 3,538,627

Alleghany Fiber proposal					CBEC's contribution
Lumos Cost	FT/Each/HRS		Total Cost		
Fiber Extension		24870	$	137,282	
Hardware/Transport/Optics		1	$	265,100	
Labor	144 hours		$	5,900	
Total			$	408,282	

Fujitsu Fiber Build Estimate	Lumos Capital upgrades	Total	
$3,538,627.00	$408,282.00	$3,946,909.00	$394,690.90

LETTERS OF SUPPORT

1. Delegate Terry L. Austin
2. Congressman H. Morgan Griffith
3. Sheriff Kevin W. Hall
4. Superintendent of Alleghany Highlands Public Schools - Kimberly K. Halterman
5. Alleghany County Director of Public Safety - Jonathan Fitch
6. Former Alleghany County Director of Public Safety - Ryan Muterspaugh
7. Alleghany Highlands Chamber of Commerce Executive Director - Teresa Hammond
8. Alleghany Highlands Economic Development Corporation - Terri McClung
9. The Alleghany Foundation Executive Director - Mary Fant Donnan
10. Roanoke Valley Alleghany Regional Commission Executive Director - Jeremy Holmes
11. Former Senior Manager of Lumos Networks, Board of Directors Member of AHEDC - Ray N. Lipes
12. Resident - Susan E. Knick
13. Resident - Jimmy Hogendobler
14. Resident - Kevin Mangum
15. Resident - Scott Peters
16. Resident - Unknown

COMMONWEALTH OF VIRGINIA

HOUSE OF DELEGATES
RICHMOND

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

COMMITTEE ASSIGNMENTS:
TRANSPORTATION
APPROPRIATIONS
RULES

August 16, 2022

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

Dear Dr. Holmes:

I am providing this letter of support for Alleghany County's project application to address a critical need for an area in the western portion of the county known as Crows & Hermatite. This area has challenging topography and is affected by the Green Bank Observatory's "national radio quiet zone" federal regulations. Residents here lack cellular service, let alone a stable broadband connection. As a result, the ability to contact emergency services is nonexistent.

In November 2021 Lumos Networks completed its rollout of 100% gigabit fiber within its service area in Alleghany. However, the Crows & Hermatite area is serviced by Frontier Communications, based out of West Virginia. Frontier has serviced the area with only landlines and its performance and maintenance is inconsistent at best. The landlines are often inoperable and attempts to work with Frontier to address these issues have been unsuccessful.

A large section of Alleghany County is left without means of communication for business, education, and most importantly emergency services. The successful completion of this project will rectify these issues, and I ask for your support for this application.

Respectfully,

Delegate Terry L. Austin

19th House District

H. MORGAN GRIFFITH
9TH DISTRICT, VIRGINIA

COMMITTEE ON
ENERGY AND COMMERCE
SUBCOMMITTEES:

OVERSIGHT AND INVESTIGATIONS
REPUBLICAN LEADER

ENERGY

HEALTH

www.morgangriffith.house.gov

Congress of the United States
House of Representatives
Washington, DC 20515–4609

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(276) 525-1444 FAX

17 WEST MAIN STREET
CHRISTIANSBURG, VA 24073
(540) 381-5671 PHONE
(540) 381-5675 FAX

August 15, 2022

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

Dear Dr. Holmes,

I am writing to express my support for the grant application for the Virginia Telecommunications Initiative (VATI) through the Virginia Department of Housing and Community Development submitted by Alleghany County, with county goverment offices located in Covington, Virginia.

In preparing this grant application, Alleghany County cited many factors contributing to the need for this funding in my congressional district. I ask that you give this application your most thoughtful and serious consideration. If there is any additional information that my office can provide, please contact Josh Hess at my Christiansburg office at (540) 381-5671.

I would very much appreciate it if you would acknowledge receipt of this letter and keep me apprised of your action regarding this application when review is complete. You should respond to Alleghany County in care of my Christiansburg office at (540) 381-5671 by phone or by mail to 17 W. Main Street, Christiansburg, Virginia 24073.

Thank you for your time and attention to this matter. I look forward to hearing from you. I remain

Sincerely yours,

H. MORGAN GRIFFITH
Member of Congress

Kevin W. Hall
Sheriff
Alleghany County/City of Covington
540-965-1770 ext 101
kevin.hall@co.alleghany.va.us

August 19, 2022

Dr. Tamarah Holmes, PhD.
Department of Housing and Community Development
600 East Main Street, Ste. 300
Richmond, VA 23219

Dear Dr. Tamarah Holmes, PhD.,

I am pleased to be writing a letter of support for the County of Alleghany's proposal for grant funding through the Virginia Telecommunication Initiative, supporting broadband expansion into the western portion of Alleghany County.

This part of our county lacks cellular service and has very unreliable phone and internet access through satellite. From a law enforcement view point, this lack of reliable communications is extremely dangerous as it leaves the community without the ability to call for emergency services when needed. Due to rising costs, many households are cancelling hardwired landlines. making VOIP phone service more vital than ever before

The need to connect with local law enforcement, emergency services and government are detrimental in the community we serve. Social networks and websites give rural citizens access to important updates from these agencies. Dangerous situations, amber alerts and emergency notifications can be realized and communicated in real time through the use of a broadband network.

I urge you to consider funding in order to enact broadband accessibility to our county. If you have any questions about the issues raised in this letter, please contact me at kevin.hall@co.alleghany.va.us.

Sincerely,

Kevin W. Hall

Kevin W. Hall

ALLEGHANY HIGHLANDS
Public Schools

Department of Housing and Community Development
600 E. Main St. #300
Richmond, VA 23219

To Whom It May Concern:

It is my privilege to write to you in support of the DHCD Virginia Telecommunication Initiative (VATI) to provide Internet access and cellular service to the Crows-Hematite Area of Alleghany County. We adore our community's mountains and our location in the United States National Radio Quiet Zone, and we understand this presents some challenges for connectivity. The contributions our residents can make as informed citizens, engaged students, and remote workers when presented with enhanced technological capacity are unlimited, however, and we are eager to receive your support to unleash this potential.

As superintendent of the Alleghany Highlands Public Schools (AHPS), I can attest that our students and their families need Internet access. While it is certainly true that this access can be used for fully-remote learning, it is also imperative for more routine needs, including but not limited to:

- Receiving school updates, including emergency notifications,
- Completing academic practice tasks (homework, preparation for upcoming lessons through "flipped" learning strategies that require access to Internet), and
- Enhanced academic engagement for full families.

We know as educational leaders that we can provide families digital means of maintaining involvement with their children's education that undoubtedly promotes overall success and "academic press" - the overall sense that learning is valued by families.

Alleghany Highlands Public Schools (AHPS) is committed to shrinking learning gaps for disadvantaged populations, and we realize that our students in the Crows-Hematite Area are disadvantaged by lack of reliable Internet access. We are committed to ensuring the progress of every student and their preparation for their participation in Virginia's robust economy, and community Internet access is part of that preparation. We stand ready to continue to provide enhancements to the education of our students and to our community's overall workforce development program through digital resources such as library access, rich project-based learning exercises, and work-based learning opportunities that require the Internet.

Your investment helps reap the benefits of our community's existing investment, as our school division provides hardware for student use at home as appropriate for individual learning needs. We sincerely thank you for enhancing our commitment to young people and their families by your support of our DHCD VATI application. If I or my team can provide further assistance, do not hesitate to contact us.

Respectfully,

Kimberly K. Halterman
Superintendent
Alleghany Highlands Public Schools

P.O. DRAWER 140 LOW MOOR, VIRGINIA 24457 PH: 540.863.1800 FX: 540.863.1804 AHPS.K12.VA.US

Alleghany County Office of Public Safety

9212 Winterberry Avenue, Covington, VA 24426

To: **Tamarah Holmes, PhD.**

From: **Jonathan Fitch, Director**

Date: **08/18/2022**

RE: **DHCD Virginia Telecommunication Initiative (VATI). Crows & Hematite Project**

Dear Tamarah:

I am writing to you express our support for the telecommunications project for the Crows and Hematite area. This area has long been under serviced when it comes to telecommunication infrastructure. Although the area has a low-density of population, the residents in the area are very isolated from each other due to the mountainous and vast woodland topography of the area. This also provides a challenge for us in emergency services. Persons in need of emergency services have to find a landline phone to call for help due to the lack of cellular coverage. Often landline services are unreliable and result in dropped calls, especially in inclement weather.

The Crows and Hematite areas rank very high for wildland fire hazard. The area has a long history of large wildland fires. Due to the steep and vast topography, often time these fires go un-noticed until they become sizable. This also provides challenges for emergency crews needing to evacuate residents from the area. The counties reverse 911 and public warning systems are not accessible to the residents in the area due to the poor telecommunications.

This project surpasses the need for internet; it is a serious public safety concern. I hope you will share the same concern for this initiative.

Sincerely,

Jonathan Fitch, Director

Alleghany County Office of Public Safety

Cell: 540-666-8743

August 16, 2022

Tamarah Holmes, Ph.D.
Director 10
Office of Broadband
Department of Housing and Community Development
600 East Main St., Ste. 300
Richmond, VA 23219

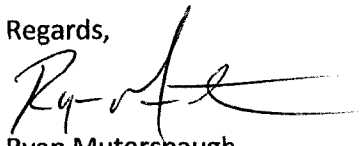
Dr. Holmes:

The purpose of this letter is to express my support for the Alleghany County application to DHCD for the VA Telecommunication Initiative to provide Broadband accessibility to the Crows and Hematite area. The need for effective and reliable internet and telephone communications in this area of the County is long overdue. The citizens in that area have been plagued with extremely unreliable service and very poor maintenance from Frontier Communications for many years.

I was the Director of Public Safety for Alleghany County for over 19 years until March 2022. There were many times during my tenure there that citizens (customers of Frontier) could not make or receive calls from their landline phone, including 911. There is also very little to no cell phone service in that area. This leaves many citizens with no means to contact help in the event of an emergency. There were a few instances where citizens could not receive landline calls but could make outbound calls to cellular numbers only. In order to provide them with a means for emergency communication and to get the necessary assistance, I gave many of the citizens in that area my cell number and advised them to call me anytime, day or night, so I could three-way call into the 911 Communications Center to get them help. This is unacceptable as it causes unnecessary delays in emergency response. These issues and concerns were communicated to Frontier many times by County officials and their customers, but they continued to provide poor service and let outages go on for days, or even weeks, without any resolution and with very little empathy.

I could provide many more examples of the ineffectiveness and indifference of Frontier Communications for the citizens in the Crows and Hematite area. It is time that these citizens realize a better level of service than what they have been accustomed to for many years. I applaud Alleghany County's willingness to undertake this endeavor and strongly encourage DHCD to support and approve this project. Thank you for your time.

Regards,



Ryan Muterspaugh
Emergency Services Coordinator/Planner
Roanoke City and Alleghany Health Districts
Virginia Department of Health

Alleghany Highlands
CHAMBER OF COMMERCE & TOURISM

Statement of Support
DHCD Virginia Telecommunication Initiative (VATI)
For Alleghany County
August 2022

The Alleghany Highlands Chamber of Commerce & Tourism works to enhance and promote tourism, community development and business opportunities for our area and submits this statement of support for Alleghany County's application for the DHCD Virginia Telecommunications Initiative (VATI).

In November 2021, Lumos Networks completed a critical project that provides 100% gigabit fiber internet speed to those in the company's service area in the Alleghany Highlands. That initiative provided much needed access to the majority of the area but the area in the Western part of Alleghany County, known as Crows & Hematite epitomizes "the digital divide."

This area of the county is not covered by the Lumos service area, lacks cellular service, and is in dire need of a reliable method of communication and internet accessibility at properties, businesses, and residences. This area of the county has low-density population, challenging topography, and is affected by the Green Bank Observatory's "national radio quiet zone" federal regulations.

Frontier Communications, which has served the area with landlines only, is not consistent with service and maintenance. The landlines are often inoperable. There have been attempts to work with Frontier on these issues, but to no avail. Frontier only has a 10-foot easement on either side of their lines, in mostly-wooded areas. This restriction makes tree maintenance nearly impossible, with fallen trees often impacting service;

County residents are often left without means of communication for business, pleasure, education, and most-importantly emergency services;

- Residents are often **without** the ability to call for Emergency Services, when needed;
- Residents lack access to internet services, making today's connected world out of their reach;
- Students who need internet access have to devise alternate methods in order to complete assignments and do proper research, outside of their homes;

Alleghany County is working with Craig-Botetourt Electric Cooperative to devise a plan for installing permanent broadband infrastructure that would offer a stable and consistent means for communication.

This project would be a tremendous benefit to the residents in that section of the county. It would have a positive impact on the quality of life in the area; allow students access to online study resources and enhance business opportunities in that area. We appreciate your consideration of this application.

Sincerely,

Teresa Hammond

Teresa Hammond
Executive Director

The Alleghany Highlands Chamber of Commerce & Tourism
110 Mall Road, Covington, VA 24426
(540) 962-2178 FAX (540) 962-2179 www.visitalleghanyhighlands.com

Alleghany Highlands
ECONOMIC DEVELOPMENT CORPORATION

August 16, 2022

Tamarah Holmes, PhD.
Director 10
Office of Broadband
Department of Housing and Community Development
600 East Main Street, Suite 300
Richmond, VA 23219

Dear Ms. Holmes:

The Alleghany Highlands Economic Development Corporation (AHEDC) is pleased to acknowledge support for the submission of Alleghany County's VA Telecommunication Initiative (VATI) grant. This grant would have a tremendous effect on Hematite's way of life offering a stable and consistent means for their communication needs.

We all know first-hand the prominent need for internet services living in today's world. Our daily life tasks, communication, and enjoyment depend chiefly on the internet. Students need reliable services in order to complete assignments, do proper research, and to use their landlines without issues. It is, therefore, critical to have the ability to make calls particularly for Emergency Services when needed.

The AHEDC is excited at the likelihood of this opportunity to offer internet services to the Hematite area of Alleghany County for all their communication needs but most importantly for their Emergency Services.

Sincerely,

Terri McClung

Terri McClung
Office Manager

ALLEGHANY HIGHLANDS ECONOMIC DEVELOPMENT CORPORATION
9212 Winterberry Avenue • Suite C • Covington, VA 24426 • 540.862.0936 • Fax 540.862.0937 • terr@ahedc.com • www.ahedc.com

THE ALLEGHANY FOUNDATION

August 23, 2022

Tamarah Holmes, PhD.
Director 10
Office of Broadband
Department of Housing and Community Development
600 East Main Street. Ste. 300
Richmond, VA 23219

Dear Tamarah:

This letter is in support of Alleghany County's work with Craig-Botetourt Electric Cooperative to devise a plan for installing permanent broadband infrastructure that would offer a stable and consistent means for communication. As one financial supporter of previous collaborative efforts to strengthen broadband deployment in the Alleghany Highlands, I can both recognize that much has happened, primarily through the efforts of Lumos, to create fiber-based connectivity in a large portion of Alleghany County, and there are also still gaps – particularly in the Crows and Hematite communities.

Though much has happened in the region over the past ten years that is very positive, there are areas that lack services, and more attention needs to be paid to the costs of services. I served with other community leaders on the broadband task force for several years. Among other things, we identified services in the western/southwestern areas of Alleghany County and served primarily by Frontier as inadequate. Even as that region has some connectivity through primary arteries, it falls woefully short for last mile (or last 10-mile) connections for families who live in rough terrain and where the population is widely dispersed. We found stories of people who were not able to do their jobs or school work due to the lack of affordable and high-speed connectivity.

As an added element, cellular service is very challenging in this region. Some of that is a result of the topography and limited transmission and some is the limited availability related to the Green Bank Observatory's Quiet Zone. Many turn to internet-based calling or boosters for cell phones. Whereas some turn to cellular data plans in other areas, these do not work well here, and the absence of internet at home compounds the gaps with communications.

I and my family have been grateful for expanded fiber services in our neighborhood as my husband works remotely and uses large digital files. My children relied on the connectivity during the pandemic for both high school and remote college classes. I used to think of the fiber availability as a selling point for our community. Though availability is an asset, I have revised my thinking to recognize that affordable, fiber-based broadband is essential. As we saw during the pandemic, students needed access from home, and many parents needs access to be able to

P.O. Box [illegible] Covington, VA 24426 Phone: (540) 965-2071 Fax: (540) 965-2076
Email: info@alleghanyfoundation.org Website: www.alleghanyfoundation.org

keep working. Though we look forward to a time some of those dynamics shift, additional work is needed.

I do hope you will be able to support Alleghany County's request. Please contact me if you have any questions.

Warm regards,

Mary Fant Donnan
Executive Director
The Alleghany Foundation

Roanoke Valley-Alleghany
REGIONAL
commission

rvarc.org 313 Luck Avenue, SW | Roanoke, Virginia 24016 | P: 540.343.4417 | F: 540.343.4416 | rvarc@rvarc.org

August 16th, 2022

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

Dear Dr. Holmes,

I am pleased to submit this letter of support on behalf of Alleghany County, encouraging you to strongly consider their VATI application on behalf of the Crows & Hematite project in the western part of the county.

This part of the region represents a significant digital divide in Alleghany County. It is not covered by the existing Lumos network and cellular service is spotty or nonexistent, isolating the residents of these sparsely-populated and topographically challenged communities. The existing provider, Frontier, has presented a number of challenges in service maintenance and reliability that has left the County struggling and the residents of this area often without the ability to call for emergency services or meet other basic communications needs.

In the spirit of making sure that all citizens of the Roanoke Valley-Alleghany region have access to basic services and are not left out of the increasingly necessary telecommunications technologies of the 21st century, we support Alleghany County's goal, with the assistance of this VATI grant application, of working with the Botetourt-Craig Electric Cooperative to devise a plan to support this area with permanent, reliable broadband service.

Sincerely,

Jeremy Holmes

Jeremy Holmes
Executive Director, Roanoke Valley-Alleghany Regional Commission

Tamarah Holmes, PhD.
Director 10
Office of Broadband
Department of Housing and Community Development
600 East Main Street. Ste. 300
Richmond, VA 23219

Ray N. Lipes
220 N. Smith Bridge Rd.
Hot Springs, VA 24445

Ms Holmes,

I recently retired from Lumos Networks where I was the Senior Manager who oversaw the critical company project that was completed in November 2021 which provides 100% gigabit speed Fiber Broadband to those in the company's service area in the Alleghany Highlands.

The area in the Western part of Alleghany County, known as Crows & Hematite epitomizes "the digital divide." This area of the county is not covered by the Lumos Networks service area, lacks cellular service, and is in dire need of a reliable method of communication and internet accessibility at properties, businesses, and residences. The expansion of Fiber Broadband infrastructure into this remaining area of Alleghany County is critical for the following reasons:

- This area of the county has low-density population, challenging topography, and is affected by the Green Bank Observatory's "national radio quiet zone" federal regulations.

- Frontier Communications, which has served the area with landlines only, is not consistent with service and maintenance. The landlines are often inoperable. There have been attempts to work with Frontier on these issues, with no avail.

- Frontier only has a 10-foot easement on either side of their lines, in mostly-wooded areas. This restriction makes tree maintenance nearly impossible, with fallen trees often impacting service.

- County residents are often left without means of communication for business, pleasure, education, and most-importantly emergency services.

    - Residents are often **without** the ability to call for Emergency Services, when needed.
    - Residents lack access to internet services, making today's connected world out of their reach.
    - Students who need internet access have to devise alternate methods in order to complete assignments and do proper research, outside of their home.

Alleghany County is working with Craig-Botetourt Electric Cooperative and Lumos Networks to devise a plan for installing permanent Fiber Broadband infrastructure that would offer a stable and consistent means for communication.

As a Board of Directors member of the Alleghany Highlands Economic Development Corporation, I am submitting this letter of support for a VITA Grant to enable Fiber Broadband accessibility to the Crows & Hematite area of Alleghany County.

Sincerely

Ray Lipes

Ray N. Lipes

Susan E. Knick
6915 Big Ridge Road
Covington VA 24426

Tamarah Holmes, PhD.
Director 10
Office of Broadband
Department of Housing and Community Development
600 East Main Street. Ste. 300
Richmond, VA 23219

RE: Letter of Support for Broadband accessibility to the Crows & Hematite area of Alleghany County, Virginia

I live in the extreme western portion of Alleghany County, VA. This area is what my husband and I often jokingly refer to as the 'frontier' due to limited communications availability. While we reside on a state maintained roadway we have only 1 full time neighbor who lives four miles from us and is separated by significantly challenging terrain which is often encumbered during winter months by snow/ice, have no cellular service at all, and are forced to rely upon antiquated landline telephone service provided by Frontier Communications for phone service.

Landline is our only method by which to summon emergency assistance from our home and by which my husband's heart monitor communicates with his cardiologist. I find the need to rely on antiquated landline technology particularly stressful as it is not uncommon for our phone service to be inoperable for days, sometimes weeks, at a time. Whenever there is a heavy rain we know that the phone line will be full of static, often making it impossible to hear, until the lines "dry out" as water seeps into junction boxes. Winds often leave us with no phone service for days at a time until Frontier sends a technician out to scour the mountain side for the cause of the outage; usually a tree down on a line. During clear weather it is not uncommon to have wild animal damage to the phone lines as many lines lay on the ground or just barely above ground level.

We cannot access streaming or zoom services from home meaning during the COVID pandemic when the world switched to Internet-based meetings we had to drive miles to find a location where we could access Internet service with capability to allow us to communicate with doctors, colleagues and other necessary services. If the weather was bad we had to forgo these meetings altogether.

It is clear that the world HAS moved to Internet based communications and left the world of land-line telephones behind. Our need is more than socially oriented; it is a life-saving/emergency need. Medical equipment with communications to doctors (CPAP machines, heart monitors, etc.) is no longer outfitted for landline interaction; everything is cellular and Internet-based. We cannot video chat with our doctors. Many, many times, we cannot summon emergency assistance if it were needed.

I wholeheartedly support Alleghany County's application to DHCD VA Telecommunication Initiative (VATI) to enable Broadband accessibility to the Crows & Hematite area of the County.

Susan E. Knick

Susan E. Knick

From: Cloud 'O' Feathers [mailto:jimhogendobler@gmail.com]
Sent: Monday, August 22, 2022 10:46 AM
To: sadcock@co.alleghany.va.us
Cc: Mary Fant Donnan <maryd@alleghanyfoundation.org>
Subject: Letters of Support - Crows-Hematite ISP

Suzanne,

I received a copy of your Email from a neighbor here in Crows, Virginia. This is very exciting for our community having lived through the connectivity issues here both as an individual and professional. Finally solving this problem for myself after 24 months of work I cannot emphasize the importance and real need we have here of affordable quality Internet. We also have a fairly diverse gap with Emergency services, Telemedicine, education, and many other needs that good Internet connectivity could help solve.

Attached I have provided a presentation that I have sent to the board of supervisors along with the Alleghany Foundation a few months back. Knowing the timing of this with Starlink losing the Grant for rural connectivity in our county I would like to provide my support for this.

Look forward to hearing of any progress or if anything else is needed from me please let me know, thanks.

Cheers,

Jimmy Hogendobler
M (703) 209-6113

From: kevin.mangum@frontier.com [mailto:kevin.mangum@frontier.com]
Sent: Thursday, August 18, 2022 8:21 PM
To: sadcock@co.alleghany.va.us
Subject: Letter of Support (Crows-Hematite)

TO: Suzanne Adcock
From: Kevin Mangum

Subject: Letter of Support (Crows-Hematite) Aug 18, 2022

I live on Cove Creek Rd in Alleghany County and currently have internet and phone via Frontier. My current phone and internet are provided over a Digital Subscriber Line (DSL). I would welcome a change/upgrade to fiber via Lumos Networks. My current Frontier connection (on a good day) provides 10 Mbps downloads and less than 1 Mbps uploads. Over the last five years, I have had very poor service from Frontier. I have had to contact the Federal Communications Commission (FCC) several times to get issues (no internet or phone) resolved. During this time I worked remotely for NASA and on many occasions had to relocate to a friends house (which internet was provided by Lumos) to complete my duties because the Frontier internet connection was down.

There was several times that I contacted the Alleghany County Public Safety office because I was unable to call specific numbers such as 911, doctors office, police and others. During this, unknown at the time, we could not receive calls either. These types of issues are concerning, because you do not know you have lost service until you need it. These situations took weeks to solve. I want to also highlight that there is no Cell signal at my residence so my land line is very important! During these situations it was not limited to my connection. I contacted several neighbors who contacted other neighbors and we all had the same issue.

Communication with Frontier is also poor. When there is an issue and a service call (repairman) is required, responses has been between 1-2 weeks. Luckily none of the issues ever required a repairman to come to my house to correct the issues. The first hurdle for getting help with an issue (internet or phone) is convincing the Helpdesk that YES frontier does provide me with internet and phone even thou I live in Virginia. Having a provider in a different state does provide (which they don't support) its own set of problems.

If I was to have FIBER connection, I would be able to do online banking, work remotely more efficiently, have confidence in contacting help if needed, and of course utilize the higher bandwidth for personal reasons (communication with family and friends via Facebook, FaceTime, and watch movies and news).

Kevin Mangum
540 559-4208

From: Scott Peters <scottp944@icloud.com>
Date: August 21, 2022 at 5:34:06 PM EDT
To: sadcock@co.alleghany.va.us
Subject: Letter of Support-Crows/Alleghany Broadband

This email is to support the initiative to improve the internet service in the Crows/Hematite area of Alleghany County. Our current service is provided by Frontier and sometimes can be very limited. As someone who has the ability to work remote, the upload and download speed has limitations.

Also, we have experienced on occasion that our landline home phone has went out and no ability to call 911 for emergency services. With no cell service, we rely on WiFi Calling which is accomplished via our internet service provider. At times, the WiFi calling is inadequate due to the internet provider.

I have personally had Frontier personnel on site for repairs and was informed of the following issues:

(1) If someone with Frontier internet complains too often about their internet service, Frontier will drop that customer and claim that internet is no longer available at their residence.

(2) I have also been informed that Frontier does not have adequate spare parts to make repairs to the internet service equipment.

Feel free to reach out if any further comments are requested.

Thank You,

Scott Peters
2212 Cove Creek Road
Covington, VA 24426
540.559.9791

From: likespigs@aol.com [mailto:likespigs@aol.com]
Sent: Thursday, August 18, 2022 8:53 PM
To: sadcock@co.alleghany.va.us
Subject: support for internet service

As residents of the Cove Creek area in western Alleghany County, we ask for any help in obtaining reliable internet service. The service we receive from Frontier is ok, but customer service can take days. Often we and our neighbors are left without any means to call 911. I have recently tried to help an elderly couple who are housebound and rely on the internet but only have satellite service which is terrible. We deserve better.

OMB 3060-0816

Form 477 Filing Summary

FRN:
0002072916

Data as of:
Jun 30, 2021

Operations:
Non-ILEC

Submission Status:
Original - Submitted

Last Updated:
Sep 20, 2021 12:54 PM

Filer Identification

Section	Field	Response
Filer Information	Company Name	Craig Botetourt Energy and Home Services, LLC
	Holding Company Name	Craig-Botetourt Electric Cooperative
	Filing Type	Non-ILEC
	SAC ID	N/A
	499 ID	833878
Data Contact Information	Data Contact Name	Timothy J Kaczmarski
	Data Contact Phone Number	(540) 864-5121
	Data Contact E-mail	Tim.Kaczmarski@cbec.coop
Emergency Operations Contact Information	Emergency Operations Name	Jeffrey M Ahearn
	Emergency Operations Phone Number	(540) 864-5121
	Emergency Operations E-mail	jeff.ahearn@cbec.coop
Certifying Official Contact Information	Certifying Official Name	Timothy J Kaczmarski
	Certifying Official Phone Number	(540) 864-5121
	Certifying Official E-mail	Tim.Kaczmarski@cbec.coop

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	BOA_FBD_9-2-21.csv	Sep 3, 2021 09:37 AM	145

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Subscription	BOA_Fixed Broadband Subscription_9-3-21.csv	Sep 3, 2021 03:50 PM	4
Fixed Voice Subscription	BOA_Fixed Voice Subscription_9-20-21.csv	Sep 20, 2021 12:41 PM	4

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Virginia	Bee Online Advantage	Optical Carrier/Fiber to the End User	145
Total			**145**

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Virginia	Optical Carrier/Fiber to the End User	4	288	0	288
Total		**4**	**288**	**0**	**288**

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
300.000	300.000	288	0	288
Total		**288**	**0**	**288**

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Optical Carrier/Fiber to the End User	300.000	300.000	288	0	288
Total			**288**	**0**	**288**

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Virginia	0	0	25	25
Total	**0**	**0**	**25**	**25**

Fixed Voice Subscription (iVoIP)

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

State	Total	Consumer	Business/Govt.
Virginia	0	0	0
Total	**0**	**0**	**0**

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

		by End User Type		by Bundle		by Last-Mile Medium			
State	Total	Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	25	25	0	25	0	0	25	0	0
Total	**25**	**25**	**0**	**25**	**0**	**0**	**25**	**0**	**0**

Reminder:

Use 2010 Census geographies for data as of June 30, 2021 and before.

Use 2020 Census geographies for data as of December 31, 2021 and after.

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

Federal Communications Commission
45 L St NE, Washington, DC 20002

Phone: 1-888-225-5322

TTY: 1-888-835-5322

Videophone: 1-844-432-2275

Fax: 1-866-418-0232

Form 477 Filing Summary

FRN:
0002072916

Data as of:
Dec 31, 2021

Operations:
Non-ILEC

Submission Status:
Original - Submitted

Last Updated:
Feb 28, 2022 08:36 AM

Filer Identification

Section	Field	Response
Filer Information	Company Name	Craig-Botetourt Energy and Home Services, LLC
	Holding Company Name	Craig-Botetourt Electric Cooperative
	Filing Type	Non-ILEC
	SAC ID	N/A
	499 ID	833878
Data Contact Information	Data Contact Name	Timothy J Kaczmarski
	Data Contact Phone Number	(540) 864-5121
	Data Contact E-mail	tim.kaczmarski@cbec.coop
Emergency Operations Contact Information	Emergency Operations Name	Jeffrey M Ahearn
	Emergency Operations Phone Number	(540) 864-5121
	Emergency Operations E-mail	jeff.ahearn@cbec.coop
Certifying Official Contact Information	Certifying Official Name	Timothy J Kaczmarski
	Certifying Official Phone Number	(540) 864-5121
	Certifying Official E-mail	tim.kaczmarski@cbec.coop

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	BOA_Fixed Broadband Deployment_2-25-22_v2.csv	Feb 25, 2022 03:56 PM	65
Fixed Broadband Subscription	BOA_Fixed Broadband Subscription_2-25-22.csv	Feb 25, 2022 04:32 PM	7
Fixed Voice Subscription	BOA_Fixed Voice Subscription_2-25-22.csv	Feb 25, 2022 05:00 PM	4

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Virginia	Bee Online Advantage	Optical Carrier/Fiber to the End User	65
Total			**65**

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Virginia	Optical Carrier/Fiber to the End User	7	316	0	316
Total		**7**	**316**	**0**	**316**

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
300.000	300.000	316	0	316
Total		**316**	**0**	**316**

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Optical Carrier/Fiber to the End User	300.000	300.000	316	0	316

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Total			**316**	**0**	**316**

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End User Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Virginia	0	0	28	28
Total	**0**	**0**	**28**	**28**

Fixed Voice Subscription (iVoIP)

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

State	Total	Consumer	Business/Govt.
Virginia	28	28	0
Total	**28**	**28**	**0**

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

State	Total	by End User Type		by Bundle		by Last-Mile Medium			
		Consumer	Business/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

United States Department of Agriculture

Rural Development

Electric Programs
Rural Utilities Service

1400 Independence Ave SW
Room 4133 – STOP 1560
Washington, DC 20250

Voice: 202.720.9545

July 21, 2021

Mr. Jeffery M. Ahearn
Chief Executive Officer
Craig-Botetourt Electric Cooperative
P.O. Box 265
New Castle, Virginia 24127-0265

Subject: Virginia 2 Craig
Environmental Review of Amendment Nos. 1 and 2 to 2019-2022
Construction Work Plan

Dear Mr. Ahearn:

The USDA Rural Utilities Service (RUS) has reviewed the environmental documentation covering the facilities recommended in the cooperative's Amendment Nos. 1 and 2 to the 2019-2022 Construction Work Plan (the "Amendments"). In accordance with 7 CFR Part 1970, Environmental Policies and Procedures, all projects proposed in the Amendments appear to meet the criteria for Categorical Exclusions in accordance with 7 CFR §1970.53 [c][2][3][8]; [d][1],[2],[3],[4],[10]. §1970.53 [c][8]; [d][1],[2],[4],[10]. No additional environmental information needs to be submitted for review, provided there are no new extraordinary circumstances (see §1970.52) and the projects do not change from what has been described in the CWP and its supporting environmental documentation.

RUS has concluded its environmental review of all projects in the Amendments as provided in 7 C.F.R. §1970.11(c). The cooperative is responsible for acquiring the necessary permits for construction and operation of the proposed projects and for implementing all environmental commitments made in the Amendments and its environmental documentation. Additional state and federal permits/reviews may be required for projects sited on publicly owned lands or that cross protected streams and wetlands (specifically Forestry Service for Project Code 616). Additionally, the borrower agrees that should any threatened or endangered species, cultural resources or environmentally sensitive sites be discovered during construction, the borrower will cease construction and notify RUS and the appropriate agencies immediately.

Sincerely,

RICHELLE L. RICHARDSON
General Field Representative
Office of Operations
USDA Rural Utilities Service – Electric Programs

Categorical Exclusion Form

U.S. DEPARTMENT OF AGRICULTURE RURAL DEVELOPMENT

ENVIRONMENTAL CHECKLIST FOR CATEGORICAL EXCLUSIONS

1. APPLICANT NAME: Craig-Botetourt Electric Cooperative (VA0002)

2. NAME OF PROPOSAL (provide brief description):
2019-2022 CWP Amendments 1 and 2

3. ADDRESS OR GENERAL LOCATION OF PROPOSAL:
Roanoke, Montgomery, Giles, Botetourt, Alleghany, and Craig Counties in VA, and Monroe County in WV

4. FEDERAL ACTION:	**Loan** ☐	**Grant** ☐	**Guarantee** ☐	**Construction Work Plan or Loan/System Design** ☑

5. APPLICABLE RD PROGRAM:
Rural Utilities Service - Electric Program

6. THIS PROPOSAL QUALIFIES AS A CATEGORICAL EXCLUSION IN ACCORDANCE WITH § 1970.53 --- **OR**
§ 1970.54 ---_____ Note details on attached spreadsheet.

7. *ENVIRONMENTAL REPORT PREPARED FOR RD: **YES** ☐ **NO** ☑

***** This form can be used to document the consideration and incorporation by reference of environmental information from any source

8. Section 106 Findings:
No Potential to Affect ☐ **No Adverse Effect to Historic Properties** ☑
No Historic Properties Affected ☐

9. Endangered Species Act, Section 7 Findings:
Species/Habitat - Not Present ☐ **Species/Habitat Present - May Affect, Not Likely to Adversely Affect** ☐
Species/Habitat - No Effect ☑

10. IF PREPARED, ATTACH ENVIRONMENTAL REPORT (SEE EXHIBIT C)

For the items listed below, indicate either a "Yes" or "No" in the appropriate columns. If the answer is "Yes" in the "Adversely Affected" column for any listed resources, then an extraordinary circumstance exists and the proposed action is not eligible for a Categorical Exclusion.

Resources	Resources Present		Effects to Resources		
	Yes	No	No Effect	Affected	Adversely Affected
a. Historic Properties/Cultural Resources (Historic Properties listed or eligible for listing in the National Register of Historic Places, sites of cultural or religious significance to tribes)	☐	☐	☑	☐	☐
b. Threatened or Endangered Species, Critical Habitat, State Listed Species	☐	☐	☑	☐	☐
c. Wetlands	☐	☐	☑	☐	☐
d. Floodplains (100 or 500 year floodplains)	☐	☐	☑	☐	☐
e. Formally Classified Lands (State/Federal Parks, Monuments, Natural Landmarks, Wilderness Areas, Wild and Scenic Rivers, National Forest System Lands, other Federal or State Lands, etc.)	☐	☐	☑	☐	☐
f. Water Resources (Sole Source Aquifers, Well-head protection areas, Watershed Protection Areas, etc.)	☐	☐	☑	☐	☐
g. Coastal Resources (Coastal Barrier Resources System or Coastal Zone Management Areas)	☐	☑	☑	☐	☐
h. Coral Reefs or Protected aquatic habitats (Only applies to American Samoa, Florida, Guam, Hawaii, Northern Marianna Islands, Puerto Rico, U.S. Virgin Islands)	☐	☑	☑	☐	☐
Questions	Yes	No			
i. Is the proposal located on Important Farmland (Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance) and if so, has Form AD-1006 been completed?	☐	☑			
j. Does the project threaten a violation of local, state, or federal statutory, regulatory, or permitting requirements? Have all necessary permits been identified?	☐ ☑	☑ ☐			
k. Is the proposal located within EPA-designated Non Attainment or Maintenance Areas for Air Quality Criteria Pollutants?	☐	☑			
l. Does the proposal result in the production of unpermitted hazardous materials or waste, or consist of construction of a new RCRA hazardous materials handling facility?	☐	☑			

Table (Con.)

m. Does the proposal have any Environmental Justice concerns or disproportionately high and adverse human health or environmental effects on minority populations or low-income populations?	☐	☑	
n. Is the proposal controversial for environmental reasons? If so, attach a summary of the controversy(ies) and any actions taken and resolutions necessary to respond to the concerns.	☐	☑	
o. Is the proposal controversial for other than environmental reasons? If so, attach a summary of the controversy(ies) and any actions taken and resolutions necessary to respond to the concerns.	☐	☑	

11. FINDING:

I find that the proposal meets the criteria established in 7 CFR §1970.53, "Categorical Exclusions Involving No or Minimal Disturbance," or §1970.54 (c), "Categorical Exclusions Involving Small-scale Development." Upon review of the proposal's description or the Environmental Report I find that the proposal is consistent with 40 CFR §1508.4, "Categorical Exclusion" and does not have any extraordinary circumstances or that the proposal individually or cumulatively does not have a significant effect on the human environment and, therefore, neither an Environmental Assessment nor an Environmental Impact Statement is required.

12. SIGNATURES:

RICHELLE RICHARDSON

Digitally signed by RICHELLE RICHARDSON
Date: 2021.07.19 11:49:45 -04'00'

7/19/2021

12a. SIGNATURE OF PREPARER | **DATE**

Richelle Richardson | General Field Representative

NAME OF PREPARER | **TITLE**

12b. SIGNATURE OF STATE ENVIRONMENTAL COORDINATOR OR NATIONAL ENVIRONMENTAL STAFF | **DATE**

NAME OF STATE ENVIRONMENTAL COORDINATOR OR NATIONAL ENVIRONMENTAL STAFF | **TITLE**

JAMES ELLIOTT

Digitally signed by JAMES ELLIOTT
Date: 2021.07.20 16:46:28 -04'00'

12c. SIGNATURE OF APPROVING OFFICIAL | **DATE**

James F. Elliott | Director of Operations

NAME OF APPROVING OFFICIAL | **TITLE**

VA0002 Craig-Botetourt Electric Cooperative 2019-2022 CWP Amendments 1 & 2

Project Descriptions for Categorically Excluded Proposals Not Normally Requiring an ER (7.CFR.1970.53)

							Project Info: Environmental Review												
				Line construction information					Project Location Information (Choose from drop-down options)										
									Right of Way					Crossings/Endangered Species					
740c RUS Code No.	New or upgraded substation projects: proposed MVA	Project voltage (select from drop-box)	Carryover Project (Yes/No)	Existing line: OH or UD	New Line: OH or UD	Length (Miles)	Proposed Class within 1970.53	Brief project description (abbreviated from 740C description; i.e. capacity increase, line rebuild, new line, re-span line, line conversion, etc.)	Is entire ROW: Existing, New, Combination	Is entire ROW within Station; Ind. Park; Public; Private, Mixed-use	Right of Way Width - Line Constrion (ft)	Right of Way Acreage - New Substations (choose one)	Is tree clearing required? (Yes/No)	Does project cross any Federal, State, Tribal (Yes/No)	Does Project cross any floodplain, river, stream, wetland? (Yes/No)	Any threatened or endangered species in proximity (Yes/No)	1970.52: Extra-ordinary Circumstances: (Yes/No)
101	N/A	N/A	No		UD	4.68	(c)(8)	New line for service connections	Combination	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A
102	N/A	N/A	No		OH	1.32	(c)(8)	New line for service connections	Combination	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A
601	N/A	N/A	No	N/A	N/A	N/A	(c)(8)	Meters - AMR/AMI	N/A		N/A	N/A	No	No	No	No	No
601	N/A	N/A	No	N/A	N/A	N/A	(c)(8)	Meters - AMR/AMI (Ironto substation)	N/A		N/A	N/A	No	No	No	No	No
601	N/A	N/A	No	N/A	N/A	N/A	(c)(8)	Transformers	N/A		N/A	N/A	No	No	No	No	No
601	N/A	N/A	No	N/A	N/A	N/A	(c)(8)	Transformers	N/A		N/A	N/A	No	No	No	No	No
606	N/A	N/A	No	N/A	N/A	N/A	(d)(4)	Pole Replacements	Existing		N/A	N/A	No	No	No	No	No
702	N/A	N/A	No	N/A	N/A	N/A	(c)(8)	Security Lights	N/A		N/A	N/A	No	No	No	No	No
616	N/A	N/A	No	OH & UG	N/A	106.76	(d)(1)(2)	Fiber expansion to support Smart Grid – Approximately 91.67 Miles OH & 15.09 Miles UD	Existing		N/A	N/A	No	Yes	No	No	No
705	N/A	N/A	No	N/A	N/A	N/A	(d)(10)	AMR/AMI Accessory Equip	Existing		N/A	N/A	No	No	No	No	No

USDA
United States Department of Agriculture

Rural Development

Electric Programs
Rural Utilities Service

1400 Independence Ave SW
Room 5165 – STOP 1560
Washington, DC 20250

Voice: 202.720.9545
Fax: 202.720.1725

July 19, 2021

Mr. Jeffery M. Ahearn
Chief Executive Officer
Craig-Botetourt Electric Cooperative
P.O. Box 265
New Castle, Virginia 24127-0265

Subject: Virginia 2 Craig
Amendment Nos. 1 and 2 to 2019-2022 Construction Work Plan

Dear Mr. Ahearn:

I am pleased to inform you that Amendment Nos. 1 and 2 to your 2019-2022 Construction Work Plan (CWP) have been approved contingent upon a written environmental finding by RUS in Washington, DC. No construction should start until such environmental approval is received.

The amendments are being electronically submitted to the Office of Loan Origination and Approval in Washington for its records and further use. This approval does not pertain to the use of materials not included in Informational Publication 202-1 List of Materials Acceptable for Use on Systems of RUS Electrification Borrowers. Construction or modification of any facilities included in the CWP is subject to the conditions and requirements of 7 CFR Parts 1700-1799. All construction must conform with the provisions of the latest edition of the National Electric Safety Code (NESC) and all local, more stringent codes.

It is the Board's responsibility to determine whether loan funds and/or general funds are available for the proposed construction. Particular reference should be made to 7 CFR 1721.1 requiring RUS approval of the Construction Work Plan or amendments as a condition to loan fund advances.

Please note that the AY8 loan amount has not changed and is still $5,000,000.

Sincerely,

RICHELLE RICHARDSON Digitally signed by RICHELLE RICHARDSON
Date: 2021.07.19 09:31:10 -04'00'

RICHELLE L. RICHARDSON
General Field Representative
Office of Operations
USDA Rural Utilities Service – Electric Program

Enclosure

cc: Kenneth Solano, Chief, Engineering Branch
Barbara Britton, Director, Engineering and Environmental

Amendment To Current Approved
Construction Work Plan

Borrower #: VA002

Borrower Name: Craig-Botetourt Electric Cooperative

Amendment #____1_____

Borrower Designation _____

Change(s) Proposed: Extend the 2018 CWP Period one year, to 2023. CWP would be changed to 2019-2023. This amendment includes $1,124,349 of additional work during the remaining time period.

Code 100:

	Construction	Consumers	Miles		
101	Underground	66	4.68	$	196,206
102	Overhead	35	1.32		49,924

Code 601:

Construction	Overhead		Underground		
Transformers	35	$50,283	68	$198,941	249,225
Meters	0	$0			-
Meters - AMR/AMI	103	$43,199			43,199
Meters - AMR/AMI	996	$417,735	(Ironto meter change-out)		417,735

Code 600:

602	(2) Sets of Service Wires to increase Capacity		-
603	(3) Sectionalizing Equipment		-
604	(4) Regulators		-
605	(5) Capacitors		-
606	(6) Pole Replacements	(80 poles @ $1,500 / pole)	120,000
607	(7) Miscellaneous Replacements		-
608	(8) Conductor Replacements		-
609	(9) Miscellaneous Plant Additions		-
610	(10) Road Moves		-
611	(11) Line Relocations		-
612	(12) Step Up/Down Transformers		-
613	(13) Min/Max Meters		-
614	(14) Storm Damage		-
615	(15) Communications		-

Code 700:

702	(2) Security Lights	(250 @ 192.24 / light)	48,060

Total additional year costs $ 1,124,349

Reason(s) for Change(s): COVID-19 pandemic caused significant delays in obtaining materials & equipment

Method of Financing

Loan Funds	$ 706,614
General Funds	417,735
Contributions in Aid	

Status of Borrowers Environmental Report_____

Estimated Cost_____

Engineering Support Attached_____N/A_____

Registered Engineer_____N/A_____
(as required) (signature) (P.E. number)

Requested By_____ Date 7/15/2021
Manager/CEO

RICHELLE RICHARDSON Digitally signed by RICHELLE RICHARDSON
Date: 2021.07.19 09:31:36 -04'00'

Approved By_____ Date_____
RUS, GFR

Subject to BER approval? Yes _____ No __X__

Status of Construction: _____In Progress_____

CBEC 2018 Construction Work Plan - Amendment 1

	Was project approved in a previous CWP or Amendment? If yes, provide status. If no, provide anticipated classification (per 7CFR1970)	Will work be entirely within existing ROW, generating station, industrial park or substation fencing? If no, see next column. If yes is SHPO concurrence required for work? If yes, are T&E Species or Critical Habitat located within the county? If yes, are Federal Lands, floodplains or wetlands crossed?	For substations, will the new disturbance be <1 acre, <5 acres, or >5 acres? For lines, provide the voltage, length and ROW width.	Does the project require preparation of an Environmental Assessment of Environmental Impact Statement? If yes, the environmental work must be approved prior to application or removed from loan.
1. DISTRIBUTION				
618 (18) Pole Restoration/Pole Trussing & Banding	NA			
700 g. Other Distribution Items				
701 (1) Engineering Fees	NA	NA	NA	NA
702 (2) Security Lights	Yes. Construction is in progress.	No New ROW	N/A	No
703 (3) Reimbursement of General Funds (see attached)	NA	NA	NA	NA
704 (4) Load Management & SCADA	NA			
705 (5) Automated Meter Reading Equip.	NA			
706 (6) Broadband over Power line (BPL)	NA			
707 (7) GIS Hardware	NA	NA	NA	NA
708 (8) GIS Software	NA	NA	NA	NA
709 (9) GIS Field Inventory	NA	NA	NA	NA
800 2. Transmission				
a. New Line				
Line Designation / Wire Size				
801				
802				
803				
900 b. New Substation, Switching Station, etc.				
901				
902				
903				
904				
1000 c. Line and Station Changes				
1001				
1002				
1003				
1004				
1100 d. Other Transmission Items				
1101 (1) R/W Procurement	NA	NA	NA	NA
1102 (2) Engineering Fees	NA	NA	NA	NA
1103 (3) Reimbursement of General Funds (see schedule	NA	NA	NA	NA
1104 (4)	NA	NA	NA	NA
1200 3. GENERATION (including Step-up Station at Plant)				
1201 a Fuel / Nameplate Rating				
1202 b.				
1300 4. HEADQUARTERS FACILITIES				
1301 a. New or additional Facilitie (Attach RUS Form 740g)				
1302 b.				
1400 5. ACQUISITIONS				
1401 a. Consumers / Miles				
1402 b.				
1500 6. ALL OTHER				
1501 a.				
1502 b.				

CBEC 2018 Construction Work Plan - Amendment 1

1. DISTRIBUTION

		Construction	Consumers	Miles	Was project approved in a previous CWP or Amendment? If yes, provide status. If no, provide anticipated classification (per 7CFR1970)	Will work be entirely within existing ROW, generating station, industrial park or substation fencing? If no, see next column. If yes is SHPO concurrence required for work? If yes, are T&E Species or Critical Habitat located within the county? If yes, are Federal Lands, floodplains or wetlands crossed?	For substations, will the new disturbance be <1 acre, <5 acres, or >5 acres? For lines, provide the voltage, length and ROW width.	Does the project require preparation of an Environmental Assessment of Environmental Impact Statement? If yes, the environmental work must be approved prior to application or removed from loan.
100	a. New Line: (Excluding Tie-Lines)							
101		Underground	0	0.00	Yes. Construction is in progress.	No New ROW	N/A	No
102		Overhead	0	0.00	Yes. Construction is in progress.	No New ROW	N/A	No
200	b. New Tie-Lines	Line Designation		Miles				
201								
202								
203								
204								
300	c. Conversion and Line Changes	Line Designation		Miles				
301								
302								
303								
304								
305								
306								
307								
308								
309								
310								
400	d. New Substations, Switching Stations, Metering Points, etc.	Station Designation	kVA	kV to kV				
401								
402								
403								
404								
500	e. Substation, Switching Station, Metering Point Changes	Station Designation		Description of Changes				
501								
502								
503								
504								
505								
506								
507								
508								
509								
510								
600	f. Miscellaneous Distribution Equipment							
601	(1) Transformers and Meters							
		Transformers			Yes. Construction is in progress.	No New ROW	N/A	No
		Meters			Yes. Construction is in progress.	No New ROW	N/A	No
602	(2) Sets of Service Wires to increase Capacity				NA			
603	(3) Sectionalizing Equipment				NA			
604	(4) Regulators				NA			
605	(5) Capacitors				NA			
606	(6) Ordinary Replacements				Yes. Construction is in progress.	No New ROW	N/A	No
607	(7) Conductor Replacements (Non Site-Specific)				NA			
608	(8) Miscellaneous Replacements				NA			
609	(9) Unassigned				NA			
610	(10) Unassigned				NA			
611	(11) Unassigned				NA			
612	(12) Step Up/Down Transformers				NA			
613	(13) Min/Max Meters				NA			
614	(14) Unassigned				NA			
615	(15) Communications				NA			
616	(16) Smart Grid Fiber	616-1			NA			
617	(17) Reserved				NA			

Amendment To Current Approved
Construction Work Plan

Borrower #: VA002 Borrower Name: Craig-Botetourt Electric Cooperative

Amendment # 2 Borrower Designation _____

Change(s) Proposed
Add additional projects expected during the amended CWP period 2019-2023

Code 100:

	Construction	Consumers	Miles	
101	Underground	0	0.00	$ -
102	Overhead	0	0.00	-

Code 601:

Construction	Overhead		Underground		
Transformers	0	$0	0	$0	-
Meters	0	$0			-
Meters - AMR/AMI	0	$0			-
Meters - AMR/AMI	0	$0	(Ironto meter change-out)		-

Code 600:

602	(2) Sets of Service Wires to increase Capacity	-
603	(3) Sectionalizing Equipment	-
604	(4) Regulators	-
605	(5) Capacitors	-
606	(6) Pole Replacements	-
607	(7) Miscellaneous Replacements	-
608	(8) Conductor Replacements	-
609	(9) Miscellaneous Plant Additions	-
610	(10) Road Moves	-
611	(11) Line Relocations	-
612	(12) Step Up/Down Transformers	-
613	(13) Min/Max Meters	-
614	(14) Storm Damage	-
615	(15) Communications	-
616	Fiber expansion to support Smart Grid (see attached description)	2,500,000

Code 700:

702	(2) Security Lights	
705	Automated Meter Reading equipment (see attached description)	122,107

Total additional year costs $ 2,622,107

Reason(s) for Change(s): COVID-19 pandemic caused significant delays in obtaining materials & equipment

Method of Financing

Loan Funds	$ 2,622,107
General Funds	-
Contributions in Aid	

Status of Borrowers Environmental Report_____

Estimated Cost_____

Engineering Support Attached_____N/A_____

Registered Engineer_____N/A_____
(as required) (signature) (P.E. number)

Requested By_____ Date 7/17/2021
Manager/CEO

RICHELLE RICHARDSON Digitally signed by RICHELLE RICHARDSON
Date: 2021.07.19 09:32:11 -04'00'

Approved By_____ Date_____
RUS, GFR

Subject to BER approval? Yes _____ No __X__

Status of Construction: __Not started_____

Craig-Botetourt Electric Cooperative

Virginia 02 Craig

Amendment #2

- **740-c Code:** 616
  Year: 2022
  Cost: $2,500,000
  Fiber Project: Install fiber in Roanoke, Botetourt, and Craig counties.
  This fiber project will provide real-time communications between station equipment, RF AMI equipment, and line devices, as well as enhanced cyber security. CBEC will be installing fiber within existing right of ways and on existing poles and pole locations. There is 90.67 miles of overhead and 15.09 miles underground construction.

- **740-c Code** 705
  Year: 2021
  Cost: $122,000
  AMI Project: This new AMI system will leverage our existing AMI system that is integrated with our CIS, GIS, and OMS. It will also use the proposed fiber project to backhaul data from the field to our office. This new RF AMI solution was necessary since our current system is obsolete and no new equipment is available for the new Ironto substation. We anticipate that the next CWP will have the remaining metering system replaced with the RF system.

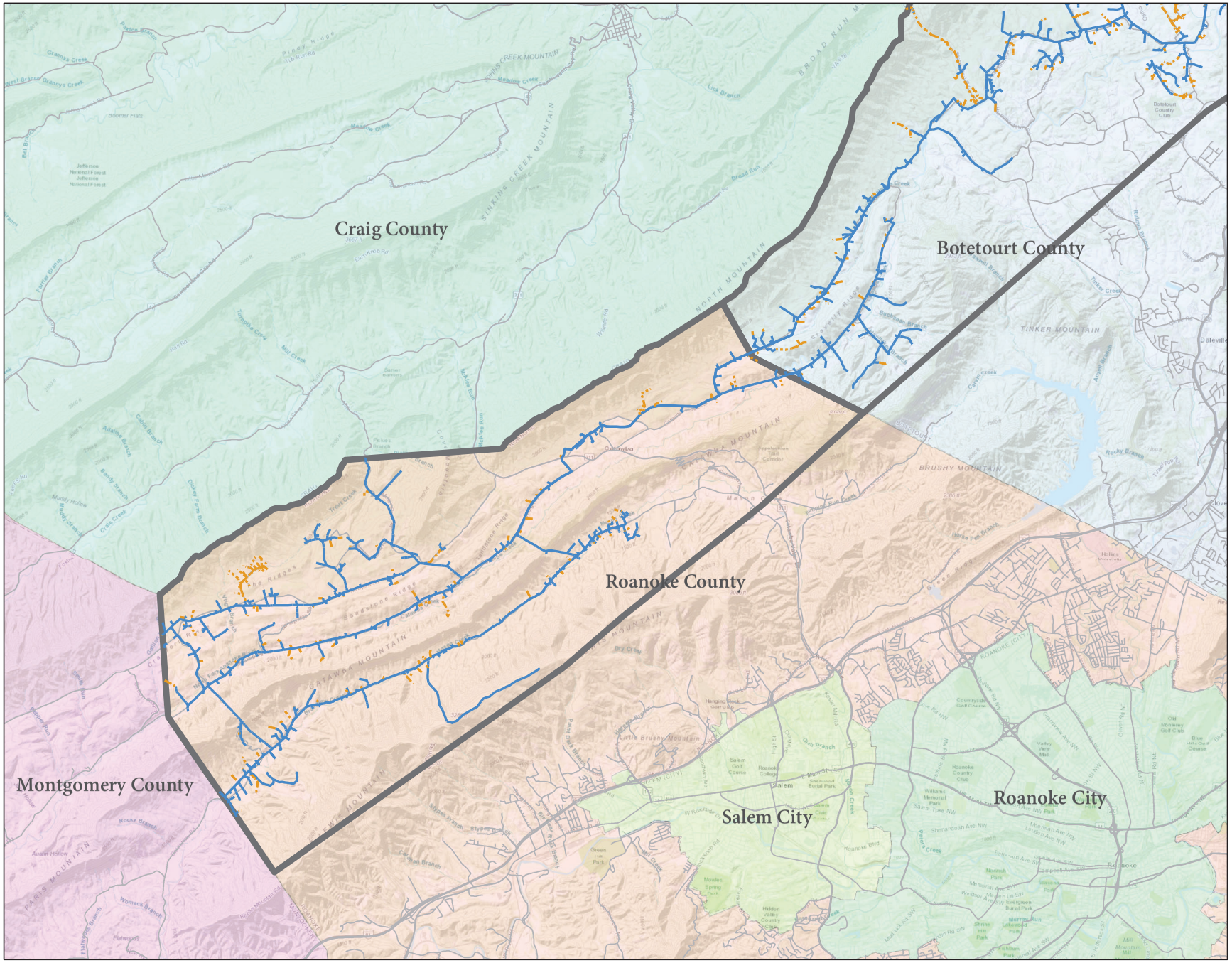
CBEC 2018 Construction Work Plan - Amendment 2

1. DISTRIBUTION

			Was project approved in a previous CWP or Amendment? If yes, provide status. If no, provide anticipated classification (per 7CFR1970)	Will work be entirely within existing ROW, generating station, industrial park or substation fencing? If no, see next column. If yes is SHPO concurrence required for work? If yes, are T&E Species or Critical Habitat located within the county? If yes, are Federal Lands, floodplains or wetlands crossed?	For substations, will the new disturbance be <1 acre, <5 acres, or >5 acres? For lines, provide the voltage, length and ROW width.	Does the project require preparation of an Environmental Assessment of Environmental Impact Statement? If yes, the environmental work must be approved prior to application or removed from loan.
100	a. New Line: (Excluding Tie-Lines)					
	Construction	Consumers	Miles			
101	Underground	0	0.00	NA	NA	NA	NA
102	Overhead	0	0.00	NA	NA	NA	NA
200	b. New Tie-Lines					
	Line Designation		Miles			
201							
202							
203							
204							
300	c. Conversion and Line Changes					
	Line Designation		Miles			
301							
302							
303							
304							
305							
306							
307							
308							
309							
310							
400	d. New Substations, Switching Stations, Metering Points, etc.					
	Station Designation	kVA	kV to kV			
401							
402							
403							
404							
500	e. Substation, Switching Station, Metering Point Changes					
	Station Designation		Description of Changes			
501							
502							
503							
504							
505							
506							
507							
508							
509							
510							
600	f. Miscellaneous Distribution Equipment						
601	(1) Transformers and Meters			NA	NA	NA	NA
	Transformers			NA	NA	NA	NA
	Meters						
602	(2) Sets of Service Wires to increase Capacity			NA			
603	(3) Sectionalizing Equipment			NA			
604	(4) Regulators			NA			
605	(5) Capacitors			NA			
606	(6) Ordinary Replacements			NA			
607	(7) Conductor Replacements (Non Site-Specific)			NA			
608	(8) Miscellaneous Replacements			NA			
609	(9) Unassigned			NA			
610	(10) Unassigned			NA			
611	(11) Unassigned			NA			
612	(12) Step Up/Down Transformers			NA			
613	(13) Min/Max Meters			NA			
614	(14) Unassigned			NA			
615	(15) Communications			NA			
616	(16) Smart Grid Fiber		616-1	No (CE)	Yes (does include US Forestry Service land)	No new ROW	NO
617	(17) Reserved			NA			
618	(18) Pole Restoration/Pole Trussing & Banding			NA			
700	g. Other Distribution Items						
701	(1) Engineering Fees			NA	NA	NA	NA

CBEC 2018 Construction Work Plan - Amendment 2

		Was project approved in a previous CWP or Amendment? If yes, provide status. If no, provide anticipated classification (per 7CFR1970)	Will work be entirely within existing ROW, generating station, industrial park or substation fencing? If no, see next column. If yes is SHPO concurrence required for work? If yes, are T&E Species or Critical Habitat located within the county? If yes, are Federal Lands, floodplains or wetlands crossed?	For substations, will the new disturbance be <1 acre, <5 acres, or >5 acres? For lines, provide the voltage, length and ROW width.	Does the project require preparation of an Environmental Assessment of Environmental Impact Statement? If yes, the environmental work must be approved prior to application or removed from loan.
	1. DISTRIBUTION				
702	(2) Security Lights	NA			
703	(3) Reimbursement of General Funds (see attached)	NA	NA	NA	NA
704	(4) Load Management & SCADA	NA			
705	(5) Automated Meter Reading Equip.	NA	Yes	NA	No
706	(6) Broadband over Power line (BPL)	NA			
707	(7) GIS Hardware	NA	NA	NA	NA
708	(8) GIS Software	NA	NA	NA	NA
709	(9) GIS Field Inventory	NA	NA	NA	NA
800	2. Transmission				
	a. New Line				
	Line Designation / Wire Size				
801					
802					
803					
900	b. New Substation, Switching Station, etc.				
901					
902					
903					
904					
1000	c. Line and Station Changes				
1001					
1002					
1003					
1004					
1100	d. Other Transmission Items				
1101	(1) R/W Procurement	NA	NA	NA	NA
1102	(2) Engineering Fees	NA	NA	NA	NA
1103	(3) Reimbursement of General Funds (see schedule	NA	NA	NA	NA
1104	(4)	NA	NA	NA	NA
1200	3. GENERATION (including Step-up Station at Plant)				
1201	a Fuel / Nameplate Rating				
1202	b.				
1300	4. HEADQUARTERS FACILITIES				
1301	a. New or additional Facilitie (Attach RUS Form 740g)				
1302	b.				
1400	5. ACQUISITIONS				
1401	a. Consumers / Miles				
1402	b.				
1500	6. ALL OTHER				
1501	a.				
1502	b.				



CBEC
PHASE II

773 ADDRESSES

POWER LINE PATH

OH

UG

Line Type	Footage
Primary OH	478,774
Secondary OH	39,166
Total OH	**517,940**
Primary UG	79,676
Secondary UG	41,553
Total UG	**121,229**

Pole Type	Pole Count
Primary Pole	1,514
Secondary Pole	145
Light Pole	13
Other	76
Total	**1,532**

N

0 0.75 1.5 3

Miles

TrueNet Communications
a Fujitsu company