

Application to DHCD Submitted through CAMS

Amherst County

Amherst County-Gladstone to Sweet Hills-Firefly Fiber Broadband 2021

Application ID: 75708142020172642
Application Status: Pending
Program Name: Virginia Telecommunications Initiative 2021
Organization Name: Amherst County
Organization Address: 153 Washington Street
Amherst, VA 24521-0390
Profile Manager Name: Jeremy Bryant
Profile Manager Phone: (434) 946-9418
Profile Manager Email: jsbryant@countyofamherst.com

Project Name: Amherst County-Gladstone to Sweet Hills-Firefly Fiber Broadband 2021
Project Contact Name: Jeremy Bryant
Project Contact Phone: (434) 946-9418
Project Contact Email: jsbryant@countyofamherst.com
Project Location: 153 Washington St.
Amherst, VA, VA 24521-0390
Project Service Area: Amherst County

Total Requested Amount: \$1,558,400.00

Required Annual Audit Status: Pending Review

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$1,558,400.00	\$698,600.00	\$2,257,000.00
Construction	\$1,558,400.00	\$471,000.00	\$2,029,400.00
Other: Other Project Costs	\$0.00	\$227,600.00	\$227,600.00
Total:	\$1,558,400.00	\$698,600.00	\$2,257,000.00

Budget Narrative:

Amherst County will offer non-cash support through assistance with grant management and administration, facilitation of the necessary permitting and county approvals for the construction process, support at community meetings to publicize the project, consideration of taking service at county facilities, and providing access to any county easements. Firefly will provide a \$471,000 cash match for the construction of the project, making up 20.3% of the project cost. In addition, Firefly will provide \$227,600 in additional contributions through labor and equipment for home installs, marketing and promotion efforts, and project management and oversight labor.

Questions and Responses:

1. Project Description and Need

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

Answer:

The Gladstone Sweet Hills project area is a critically important expansion project that will prepare southern and eastern Amherst County for full scale expansion to provide every home and business in these rural areas affordable, reliable world class gigabit speed internet access. The project provides numerous benefits including: (1) extends fiber optic gigabit connectivity to unserved and underserved rural areas; (2) brings a second fiber connectivity option to within a mile of Sweet Briar College; (3) advances buildouts in CAF areas adjacent to the project; and (4) provides the necessary backbone to allow expansion of fiber optic connectivity to all homes and businesses in southern, southeastern and eastern Amherst County, advancing rapidly toward the county's stated goal of having every household and business have gigabit speed physically connected broadband access available.

The project covers areas along major roads and highways through the rural area where there are no options at present for true broadband connectivity. At the northwest border of the project area, fiber will be within one mile of both Sweet Briar and San Angelo, the Virginia Center for the Creative Arts residency program location. Sweet Briar has a single fiber connection for internet connectivity for the college and is seeking a redundant path to address reliability given the critical nature of internet communications in post graduate education. There are several areas adjacent to the project area that have been scheduled for future buildout in several years but the buildout would be expedited with this project. This project plus the CAF buildout areas, plus a few areas with

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RDOF funds available which Firefly or any ISP might access to aid further expansion, together create a tremendous opportunity to blanket one-fourth of the county with gigabit speed internet connectivity.

The area for this project is adjacent to the border of the Central Virginia Electric Cooperative (“CVEC”) fiber build and the retail internet access service area of Firefly Fiber Broadband (“Firefly”), a wholly owned subsidiary of CVEC. The project will connect to that network near Gladstone in the southeast corner of the county and extend up Riverville Road to Rt 60. The project area follows Rt 60 west to Dulwich Drive. From Rt 60 the project area extends south along Union Hill Road and then Ebenezer Road to Higginbotham Creek Road where it runs along that road to Higginbotham Creek. Also from the intersection of Ebenezer Road and Higginbotham Creek Road the project area extends east along Earley Farm Road and then west along Bobwhite Road, picking up Sweet Hills Drive as well. The project goes south off Bobwhite Road at the intersection of Partridge Creek Road to its intersection with Izaak Walton Road, including picking up the Stallion Road neighborhood. The project extends further south along Plantation Road and then Mundys Mill Road to Kentmoor Road to its intersection with Izaak Walton Road. The southernmost leg of the project then continues down Brightwells Mill Road to its intersection with Galt Mill Road. The full project area is shown on Attachment 1 – New Gladstone Sweet Hills Project Area Map.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

The incumbent telephone company in the area is Verizon but they have not upgraded their lines or internet offerings in years. Comcast serves small area covering 14 homes along Ebenezer Road and serves areas to the west along Izaak Walton Road. SCSBroadband, which also goes by Acelanet, is a fixed wireless provider in the county. They have recently requested that Amherst County consider providing funding from the Amherst CARES funds to upgrade four different transmitters in the county to allow speeds above 10/1, even though SCSBroadband reports to the FCC on their Form 477 that they cover almost the entire county with 25/5 speeds. Acelanet is not capable of providing 25/3 speeds using wireless technology to this area according to contacts that homeowners and businesses. Acelanet also indicates it serves a few areas along the southern edge of the project area with fiber that can provide up to 100 mbps service but there are no known connections at that speed. There are no plan or package offerings for fiber service in Amherst County on the company website. Acelanet is a private company and does not make their service area, service availability or number of connections public; they recently declined to tell Amherst County in a public meeting how many accounts they had connected in the county. The only other options for internet access are cell phone companies and satellite companies. The information on providers was identified using the FCC Broadband map (<https://broadbandmap.fcc.gov/#/>) which provides information based on FCC Form 477 reported coverage areas for all broadband providers.

Residents of the area presently use cell phone connectivity or satellite to access the internet, or use a wireless connection with speeds at 25/3 or slower.

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, and Community Connect. If there have been federal funds awarded near the project, provide a map verifying the proposed project area does not conflict with these areas. Describe if there are Rural Digital Opportunity Fund (RDOF) eligible census blocks located in the proposed

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project area. Label Map: Attachment 2 – Documentation on Federal Funding Area.

Answer:

No federal funds have been received from ACAM, ReConnect or Community Connect programs for the project area. One small area along Riverville Road is in a census block with CAF II funds which were awarded to Firefly. The homes in this area are not included in the home count and will not be connected with project funds. There are RDOF eligible census blocks within the project area. The total number of passings within those census blocks is 117 which is 26.7% of the total passings in the project area. Should the RDOF blocks be awarded, Firefly will rescope the project to exclude the homes in the relative census blocks.

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 of 25/3 mbps or less and with less than 10% service overlap within the project area. 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:

The proposed service area does not have service available at greater than 25/3. Businesses and residents of the area report speeds that are well under the threshold. Verizon does not claim to provide service at that level. Acelanet does claim a speed of 25/5 for much of the area in its Form 477 filing to the FCC, but is not able to provide that level of service at the present time according to residents and according to the statements Acelanet has made to Amherst County. Acelanet also indicates it has fiber in a few census block areas but there is not indication that they provide fiber to the home service in Amherst; there is not information about fiber connectivity options for Amherst on the company website for instance. The FCC broadband map also shows Comcast indicates it has gigabit level service in portions of the project area, but Comcast only provides service to 14 homes, 3% of the total project area.

Attachment 3 shows the FCC broadband map with a census block highlighted that includes the inaccurate claims of the providers.

5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 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 passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. Describe the methodology used for these projections.
 - b. Provide the number of serviceable units in the project area that have 10/1 mbps or less. Describe the methodology used for these projections.

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1. There are 438 passings in the project service area. 14 of those are business locations and there are 8 non residential accounts that have been identified. This is a very rural, residential area.
2. Given the lack of internet options, 50% of accounts appear to have less than 10/1 connectivity if we do not consider cell phone options as acceptable given their speed reductions after passing usage thresholds.
6. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

Not a wireless project so not applicable.

7. 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 25/3 mbps.

Answer:

For residential service, Firefly offers two levels of service. The basic package is their Light service which provides 100 mbps symmetrical upload and download for \$49.99 per month. The second option is the Flash service which provides 1 gigabit per second symmetrical transfer for \$79.99 monthly. Voice over IP telephone service is offered for \$34.99 with a \$5.00 per month bundling discount if paired with internet service.

The speed is not an "up to" measurement like the one typically used by wireless technologies and DSL, but a base level that users will actually and consistently receive. Firefly residential service uses GPON technology and topography that does share a single fiber among several accounts, as all fiber based residential services does. Firefly monitors the performance level at the user and individual fiber level as well as at the network level to assure top level network performance. The new Firefly network has built a reputation on consistent speed delivery at even the highest demand times. Recently the Firefly network upgraded to a 100 gbps backhaul capacity; the present peak load is 12 gbps but with a fast growth plan Firefly is meeting its subscribers expectations by staying well ahead of the demand.

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. 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 5 – Propagation Map Wireless Project.

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Answer:

The Firefly Fiber Broadband network is a 100% fiber optic connected network. It is a looped system with immediate failover capability to assure full data flow continues through any backbone loop equipment failure or fiber break. The network is based on rings within rings that provide additional local redundancy. Communications huts serve as hubs on the network, with fiber optic lateral lines extending out from the huts to the end users.

Firefly has committed to always keeping its backbone bandwidth adequate to assure the network never suffers from peak use congestion. This year the company began to transition to a full 100 gbps network ring capacity, with the plan to complete the full backbone ring next year to the next capacity that is a tenfold increase over the original 10 gbps capacity.

The proposed VATI project will extend fiber connectivity from the existing network Firefly operates into the new project area. There will be a new communications hut and associated equipment installed as part of this project work. The hut will be connected through a fiber backbone to the existing Firefly Fiber Broadband network, and will eventually be connected with a loop feed to increase reliability.

The existing Firefly network has a present peak usage of 12 gbps with rapid growth plans that will increase the number of services connected and bandwidth used by 500% over the next three years. Firefly is prepared for this level of growth and more should opportunities arise.

9. 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 must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – MOU/MOA between Applicant/Co-Applicant.

Answer:

The Firefly network is in a rapid growth state. In 2020, the network will be built out in the Gladstone substation area, which is the take-off point for the VATI grant project area for the Gladstone Sweet Hills project. The project team is in place, including design, project management, permitting, materials and inventory management, fiber construction and consumer premise installation. Presently CVEC and Firefly are constructing at a rate of 20 miles of fiber per week and connecting more than 100 weekly while ramping up to 150 and with planning in place to reach 200 new connections per week by 2022. The team is capable and has capacity to include this project within their other work without slowing the CVEC fiber build given the expected calendar.

Our approach will be to deploy a field data gathering team, then perform an autodesign process followed by field confirmation of the design outcome. At that point we will be ready to create construction documents and deploy contractors to begin construction. We already have relationships with the design and construction teams and have contracts in place. We also are maintaining a large inventory of fiber and ancillary materials due to the size and scope of our major fiber project; we will be able to access this inventory as necessary for the project buildout which will not be slowed by long lead times for material or equipment purchases.

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The Timeline/Project management Plan and Draft Agreement between CVSI and the County are included in Attachment 6 and Attachment 7.

10. Matching funds: Complete the funding sources table indicating the cash match and in-kind 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 the a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant's cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 8 - Funding Sources Table; Attachment 9 – Documentation of Match Funding.

Answer:

The county will offer non-cash support through assistance with grant management and administration, facilitation of the necessary permitting and county approvals for the construction process, support at community meetings to publicize the project, consideration of taking service at county facilities, and providing access to any county easements. The county is excited about the project and plans to be a partner, helping to assure its success for the citizens of Amherst.

Firefly will provide a \$471,000 cash match for the construction of the project, making up 20.3% of the project cost. In addition, Firefly will provide \$227,600 in additional contributions through labor and equipment for home installs, marketing and promotion efforts, and project management and oversight labor. The marketing and promotion is particularly critical to achieving the desired take rates when a new service is offered to an area that has never had a true broadband option before. Firefly will also provide the expanded backhaul capacity to carry the additional traffic and address all other network impacts with internal investment, adding tens of thousands of dollars in electronics and other hardware.

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

Answer:

The Gladstone Sweet Hills project will have significant leverage added to contribute to the success of the project and to expand the impact of the project.

The county is providing in kind contributions of staff time to administer the grant, to facilitate all permitting and reporting, to assist with promotions and to offer other assistance needed.

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Firefly will combine its CAF funding buildout adjacent to the area to create a significant footprint in Amherst County with affordable, reliable gigabit speed internet. Firefly also has a second proposed Amherst County VATI project and another Amherst County project using CARES Act funding that will reach almost to the eastern Gladstone Sweet Hills project boundary to further accelerate the rapid deployment of fiber across the county.

With the availability of RDOF funding Firefly, or any other ISP, can pursue opportunities to cover the remainder of the southern, southeastern and eastern portions of Amherst County to meet the county goals for that area of 100% of households and businesses having true broadband access. This project plays a critical role in the acceleration of reaching that goal.

12. Marketing: Describe the broadband adoption plan.

a. 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.

b. 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. Firefly has been offering internet to rural, underserved communities for 18 months and has achieved take rates in those areas ranging from 50-70%. The largest emphasis of the marketing plan for this project will revolve around direct mail to the residents who live in these areas. The County can provide mailing addresses for each residence in the project area and Firefly will craft a mailing specific to this area. We know that rural America still checks their mailboxes and direct mail is a proven way to communicate with our audience. We can also rely on word of mouth and our vibrant Firefly installation trucks, a.k.a. rolling billboards, to reach residents who may have tossed our mailing aside or missed the messaging. In addition, Firefly will be listed as an internet provider on any County provider listing for that area.

If the grant is awarded, Firefly will issue a press release to the local media to highlight the areas of the build to keep residents informed of the award and the progress. Press releases are posted on the Firefly website and maps of the build can be posted on the website as well. Additionally, press releases are posted on social media. Firefly has found an active audience on social media and updates its followers there often on new announcements.

b. Firefly hosts Town Hall meetings for each community when a build is launched in order to answer questions about their services and about the internet in general. As space and connectivity have allowed, Firefly employees took a television and showed guests how to stream programs using the internet instead of subscribing to cable. Firefly has hosted the Town Hall events at local churches and community centers to attract guests.

13. 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. Please attach any letters of support from stakeholders. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 10 – Letters of Support.

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Answer:

Firefly Fiber Broadband is led by a team with Gary Wood, Bruce Maurhoff and Tina Mallia. This same team is responsible for the pursuit, award and administration of two grants from the Virginia Tobacco Region Revitalization Commission, two Virginia Telecommunications Initiative Grants, several county level grants, a \$28.6 million FCC Connect America Fund II auction award and a \$28 million USDA ReConnect program grant/loan award within the past two years. The Firefly team this year added Dennis Reece as its General Manager, bringing in additional experience with successful grant management from his career at Citizens Telephone Cooperative in Floyd, VA. Dennis has experience with grants from the federal, state and local levels.

The Firefly team has built approximately 1200 miles of fiber within the past two years. Starting 2019 with 6 subscribers, it will have 7000 at the end of 2020. The team includes the design and project management from Conexon which is working with multiple electric cooperatives across many states in similar buildout efforts. The fiber contractor is S&N Communications, a Virginia company headquartered in Louisa, Va which has a long and successful record of working on large projects with Google, Verizon, Comcast and other major communications companies. Internally, Dennis Reece leads the effort for Firefly with his 23 years of experience in the construction and operation of internet communication facilities.

The county staff has pursued, been awarded and successfully administered numerous grants at the federal and state level. They are familiar with the requirements of the VATI program and stand ready to oversee an award for this project. Jeremy Bryant, Director of Amherst County Community Development Office, has served as the department director since 2006. He supervises all activities related to short- and long-range planning, serves as the Zoning Administrator, and is the secretary for the Amherst County Planning Commission and the Board of Zoning Appeals. He has managed several committees including the Business Taskforce as well as the Madison Heights Redevelopment District committee, a key initiative that served to lay the foundation for the OTMH project and village zoning designation. Bryant has directly overseen numerous Amherst County state and federally funded projects where he was directly responsible for all elements of project phasing, document and funding submittals. He has extensive knowledge of state and federally funded project and has served in the management role of three successfully executed CDBG non-entitlement projects.

Name	Title	Project Duties
Dean Rodgers	County Administrator	Grant and program oversight

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Jeremy Bryant	Community Development Manager	Point of Contact Administration of grant Reporting
Gary Wood	President and CEO	Oversight of project
Bruce Maurhoff	Sr. VP & COO	Oversight of construction activities
Tina Mallia	VP & CFO	Oversight of finances, accounting and grant fund compliance
Dennis Reece	General Manager	Project Manager

14. 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

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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 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Cost Estimates.

Answer:

The budget was developed using actual pricing from the ongoing 4000+ mile buildout across the CVEC footprint. The estimates were developed using market prices established in competitively bid labor and materials contracts. Consumer premise equipment and communications hut electronics are based on contract pricing with our equipment partners for the large buildout.

15. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated 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
 - c. Highest residential speed available in proposed project area

Answer:

- a. Total VATI funding request is \$1,558,400.
- b. 438 serviceable units are within the project area.
- c. The highest residential speed will be 1 gigabit per second.

16. Commonwealth Priorities

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

- a. How the proposed project fits into a larger plan to achieve universal broadband coverage for the locality. Explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage.
- b. 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.
- c. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- d. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

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a. Amherst County is working toward a plan for county-wide connectivity with a stated goal of having each home have the option of being connected to a network capable of providing gigabit speed service. This project fulfills a critical role in bringing broadband internet to a rural area in which there are no other options for grants or outside support. There are no adequate options for broadband internet for the citizens in this area today. This project will construct a backbone through the area which will expedite expansion to areas beyond this project's footprint.

As Amherst County works toward universal coverage, Firefly is working to be a valued partner by completing its originally announced build and then extending into other areas with the support of CAF funds as well as pursuing all other potential sources of support to help make fiber to the home a reality for all areas in the southern, eastern and northern rural areas of the county.

With this project plus its CAF buildout, Firefly will cover most of the southern and eastern county areas. If Firefly or any other ISP pursues and wins an award of the RDOF moneys available for the area, one quarter of the county will have committed plans that will provide 100% of homes and businesses the option of broadband in the next few years.

b. The project will make fiber optic connected, reliable, affordable, high speed broadband service available throughout the project area. While there are few businesses today in part due to a lack of connectivity, the project allows for the expansion of present businesses and the creation of home businesses. It also allows remote work for the area residents, distance learning for the community students and provides the opportunity for telemedicine for those who need healthcare but prefer not to travel.

c. This project is a partnership of the local government with Firefly Fiber Broadband, a local community based internet service provider owned by the not for profit electric cooperative, Central Virginia Electric Cooperative. Firefly offers world class speed internet with superior local customer service at rates that are usually only found in the highest density most competitive markets. The profits from the project will stay local, with a portion reinvested in further expansion of rural broadband access in Amherst County and central Virginia.

d. The proposed project provides a basic service of 100 mbps at \$49.99 per month. Firefly offers service through the Lifeline program of the FCC with a discount of \$10.00 per month for any account which qualifies for that program. In addition, the basic service provides broadband of speed and reliability to allow television channels to be received using online services such as Hulu, Sling, DirecTVNow, YoutubeTV and others. These online providers have much lower rates than satellite or cable packages, allowing families who presently have other television viewing packages to choose basic internet service plus an online television provider for less than family is presently spending for television alone.

One new Firefly subscriber calculated a \$2400 annual savings for his household when using the Firefly internet and voice over IP services with an online video service to replace their present internet, satellite television and landline phone services.

17. Additional Information

17. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

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- a. Attachment 13 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 14 – XXXXXXXX
- c. Attachment 15 – XXXXXXXX
- d. Attachment 16 – XXXXXXXX
- e. Attachment 17 – XXXXXXXX

Answer:

N/A

Attachments:

Map(s) of project area, including proposed infrastructure

1GladstoneSweetHillsProjectarea8172020105417.jpg

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

2GladstoneSweetHillsProjectAreawithCAFandRDOF8172020105431.jpg

Documentation that proposed project area is unserved based on VATI criteria

3AmherstGladstoneSweetHillsUnserved8172020105439.pdf

Passings Form (Please use template provided)

4PassingsFormAmherstGladstoneSweetHills817202031123.pdf

Timeline/Project Management Plan

6VATIProjectScheduleAmherstCountyCounty817202031140.xlsx

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

7AmherstCVECDraftAgreementVATI2021817202031146.pdf

Funding Sources Table

8VATIFundingSourcesTableAmherstGladstoneSweetHills817202031155.pdf

Documentation for match funding

9VATIAmherstAttachment9817202031214.pdf

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Letters of Support

10AmherstCountyGladstoneSweetHillsLettersofSupport817202031453.pdf

Derivation of Cost (Project Budget)

11DerivationofCostsAmherstGladstoneSweetHills817202031224.xlsx

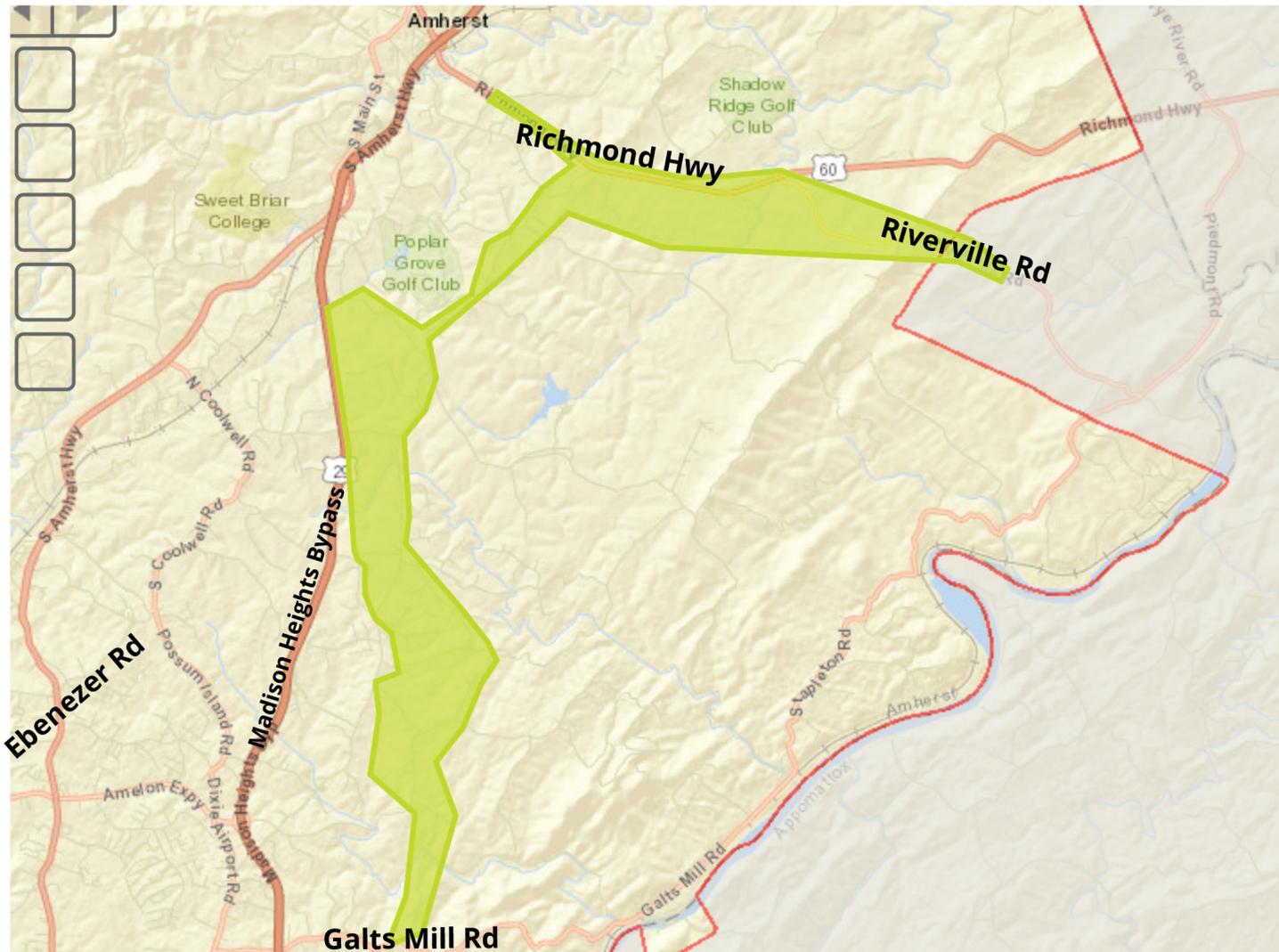
Documentation supporting project costs (e.g. vendor quotes)

12ProjectCostJustification8172020101828.pdf

Two most recent Form 477 submitted to FCC

13LastTwoFCCForm477FilingsCombined8172020105814.pdf

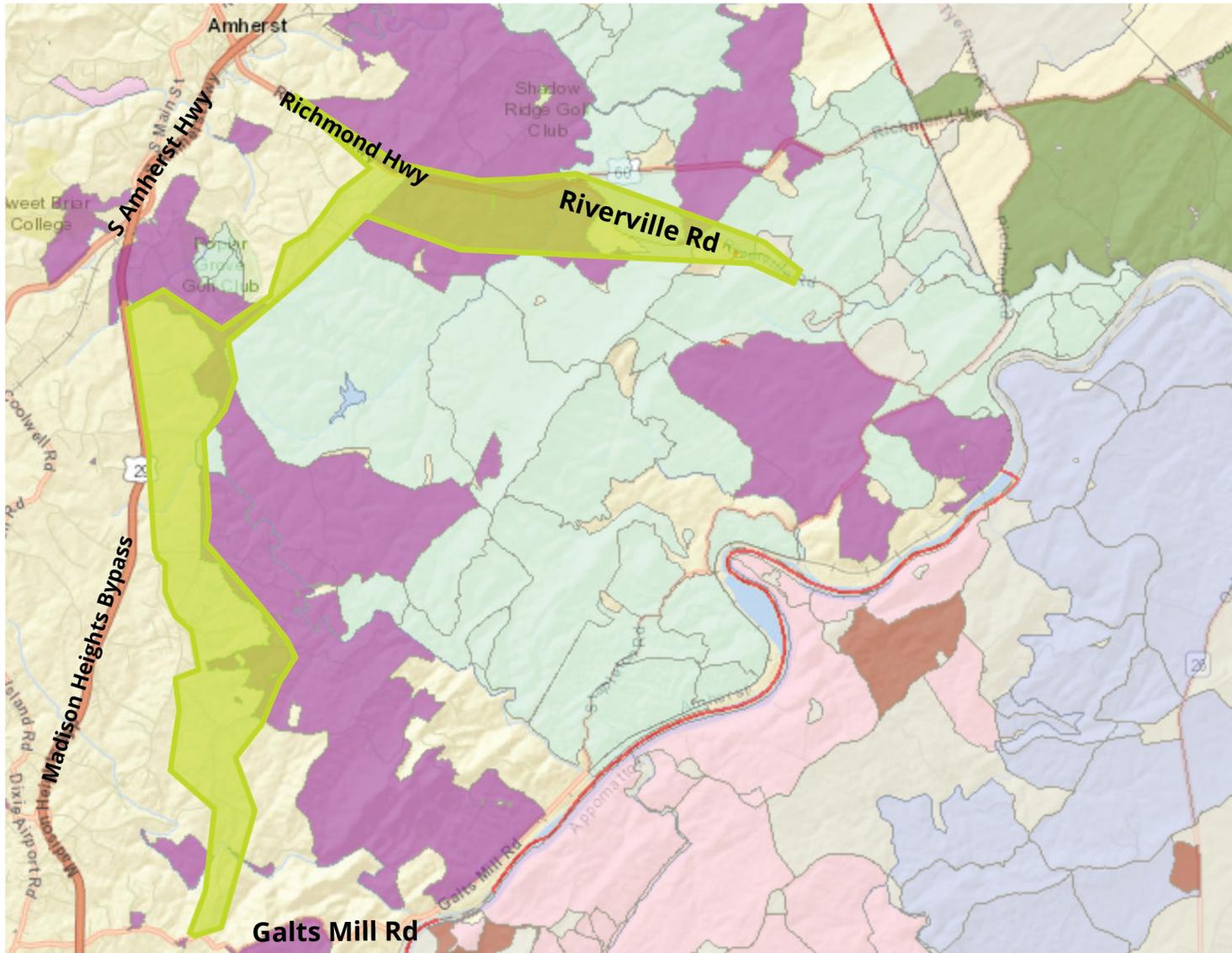
2021 VATI Application Gladstone - Sweet Hills Project Area



 CVEC Territory

 VATI

2021 VATI Application Gladstone - Sweet Hills Project Area



 CVEC Territory

 VATI

 RDOF

 CAF - Multicolored

FC Federal Communications Commission

Fixed Broadband Deployment

[Home](#) [Location Summary](#) [Area Summary](#) [Area Comparison](#) [Provider Detail](#) [Data Download](#) [About](#)

Coordinates 37.532497, -79.051140 Q [Settings] [Layers]

All Providers Reporting Service [Share] [Info]
 Census block ID: 510090102004150

Number of Fixed Residential Broadband Providers

Broadband [Settings]
Technology ADSL, Cable, Fiber, Fixed Wireless
Speed ≥ 25/3 Mbps
Date June 2019 (latest public release)

Provider	Tech	Down (Mbps)	Up (Mbps)
ViaSat, Inc.	Satellite	35	3
Acelanet LLC	Fixed Wireless	25	5
Hughes Network Systems, LLC	Satellite	25	3
Telephone and Data Systems, Inc.	Fixed Wireless	2	2
VSAT Systems, LLC	Satellite	2	1.3

2021 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number in Project Area	Number with Speeds at 10/1 or below in Project Area
Residential	416	208
Businesses (non-home based)	14	7
Businesses (home-based)	0	0
Community Anchors	0	0
Non-residential	8	4
Total Number of Passings	438	219

*Note: The Total Number of 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.

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.

Agreement between Central Virginia Services Inc (CVSI) and Amherst County Regarding VATI Funding

An Agreement dated _____, between DHCD and Amherst County (the "DHCD Agreement") imposes certain responsibilities on the "Grantee" in accepting the VATI grant. As anticipated in the joint application for funding submitted by Amherst County and CVSI, the parties wish to outline the roles of each party now that the grant has been awarded. Accordingly, the parties now hereby agree as follows:

CVSI shall perform all work described in the DHCD Agreement (which is attached hereto and incorporated herein by reference), the submitted application, project management schedule, and budget. Specifically, CVSI shall complete all Grant Activities described in the DHCD Contract Documents (including but not limited to installing ____ miles of fiber, building out the network to make fiber to the home broadband service available to all service units in the grant area including to those who choose to take service, and supplying and installing all related equipment) on or before 31 December 2022. CVSI shall indemnify, defend, and hold Amherst County harmless for any failure(s) (a) to complete any Grant Activities described in the DHCD Contract Documents on or before 31 December 2020. Upon completion of the project, CVSI will provide Amherst County speed validation data to ensure that the project Outcomes have been met and plant constructed is capable of providing broadband speeds that meet VATI criteria. CVSI may choose to submit either monthly invoices or a single invoice for payment upon completion of the work. No VATI funds shall be distributed unless and until (a) CVSI has submitted all requested documents applicable to the construction project and (b) Amherst County has verified that pre-construction and/or construction work has been completed or equipment has been ordered and received. Upon any change to availability of funding, Amherst County must notify CVSI immediately. At its sole discretion, CVSI may amend or terminate the project. Amherst County will use best efforts to request the full amount of grant funds prior to 31 December 2022.

CVSI and Amherst County will exercise due diligence and best efforts on community outreach and marketing the availability of service, which is the intent of the program. The parties understand, however, that the actual number of customers who choose to subscribe is beyond the parties' control. The parties also understand that the intent of DHCD is that the parties exercise due diligence and best efforts and that no funds will be returned to the Commonwealth nor retained by Amherst County so long as the parties exercise due diligence and best efforts to reach the program goals.

Amherst County requires a progress update from CVSI every 30 days until project completion. CVSI agrees to assume responsibility for keeping Amherst County updated per the project timeline included in the grant. Project timeline of the grant states all activities to be completed by 18 months from contract date of Amherst County and DHCD. CVSI agrees to provide Amherst County post-closeout subscriber reports as of 1 April 2023, so that Amherst County can report to DHCD in accordance with its agreement with the DHCD Agreement.

CENTRAL VIRGINIA SERVICES, INC

AMHERST COUNTY

By:

By:

_____ [SEAL]

_____ [SEAL]

Gary Wood, President

Date: _____

Date: _____

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	\$ 1,558,400	69.0%	Pending
FIREFLY CASH	\$ 471,000	20.9%	APPROVED
FIREFLY IN KIND	\$ 227,600	10.1%	APPROVED
	\$		
	\$		
	\$		
	\$		
TOTAL	\$2,257,000	100 %	

**EXCERPT FROM THE MINUTES OF THE CVSI BOARD OF
DIRECTORS MEETING HELD AUGUST 10, 2020, AT WHICH
MEETING A QUORUM WAS PRESENT**

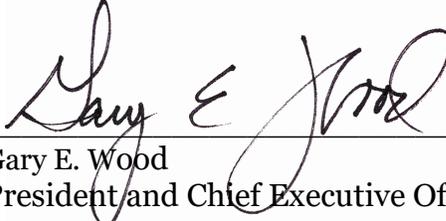
VATI Grant Applications Approval

RESOLVED: That the Board of Directors of Central Virginia Services, Inc. Approves the submission of VATI grant applications for the counties of Amherst, Buckingham, and Goochland. The two applications for Amherst County are for the areas of Sweet Briar and New Glasgow Road. The Goochland application is back-up for ReConnect funding.

CERTIFICATION

I, GARY E. WOOD, PRESIDENT AND CHIEF EXECUTIVE OFFICER OF CENTRAL VIRGINIA SERVICES, INC., DO HEREBY CERTIFY THAT THE ABOVE ARE TRUE AND CORRECT EXCERPTS FROM THE MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF CENTRAL VIRGINIA SERVICES, INC., HELD ON THE 10th DAY OF AUGUST, 2020, AT WHICH MEETING A QUORUM WAS PRESENT.

August 10, 2020



Gary E. Wood
President and Chief Executive Officer



COUNTY OF AMHERST



OFFICE OF THE COUNTY ADMINISTRATOR

TELEPHONE (434) 946-9400

FAX (434) 946-9370

AMHERST COUNTY ADMINISTRATION BUILDING
153 WASHINGTON STREET
P. O. Box 390
AMHERST, VIRGINIA 24521

August 12, 2020

Mr. Gary Wood, President & CEO
Central Virginia Services, Inc.
PO Box 359
Lovingsston, VA 22949

RE: VATI Grant Application for CVSI

Dear Mr. Wood:

I am writing on behalf of Amherst County in support of the grant application of Central Virginia Services, Inc. (CVSI) for the VATI Grant. We understand this grant application will be in support of CVSI's efforts to bring high speed internet to rural Virginia, including some of the most remote parts of Amherst County which includes; Amherst, New Glasgow, Clifford, and Gladstone to Sweet Hills Project Area.

Amherst County is extremely grateful to CVSI for recognizing the most fundamental and urgent need for broadband in our rural localities and for its commitment to address this need. Broadband is critical for the success of our school children seeking to stay technology-adept, for our elderly citizens in need of health care and other basic needs, and for our working adults in need of internet access for their jobs. It has become apparent that smaller, more civic-minded companies like CVSI are among the few who are actually willing to answer this urgent call, and for that commitment to our communities, we applaud CVSI and fully support their VATI Grant application.

Sincerely,

Dean Rodgers
County Administrator

Enclosure

August 14, 2020

Mr. Gary Wood, President & CEO
Central Virginia Services, Inc.
PO Box 359
Lovingston, VA 22949

RE: VATI Grant Application for CVSI

Dear Mr. Wood:

I am writing on behalf of Sweet Briar College in support of the grant application of Central Virginia Services, Inc. (CVSI) for the VATI Grant. We understand this grant application will be in support of CVSI's efforts to bring high speed internet to rural Virginia, including some of the most remote parts of Amherst County which includes Sweet Briar College.

Sweet Briar College is extremely grateful to CVSI for recognizing the most fundamental and urgent need for broadband in our rural localities and for its commitment to address this need. Broadband is critical for the success of our school children seeking to stay technology-adept, for our elderly citizens in need of health care and other basic needs, and for our working adults in need of internet access for their jobs. It has become apparent that smaller, more civic-minded companies like CVSI are among the few who are actually willing to answer this urgent call, and for that commitment to our communities, we applaud CVSI and fully support their VATI Grant application.

Sincerely,



Luther T. Griffith
Vice President for Finance, Operations, and Auxiliary Enterprises

Derivation of Costs

Product	Total	VATI	Non-VATI	Source of Estimate	Date
Communications Hut	\$ 110,000	\$ 85,000	\$ 25,000	Present cost in fiber project	8/14/2020
(includes land, concrete pad, electric service, backup generator, racks and dual a/c.)					
Hut Electronics	\$ 105,000	\$ 80,000	\$ 25,000	Present cost in fiber project	8/14/2020
(includes routers, switches, Calix E7 or equivalent, power supply, cross connect and patch panels, etc)					
UG Construction					
Contract Labor (25 miles at 52,200)	\$ 1,305,000	\$ 1,044,000	\$ 261,000	Present cost in fiber project	8/14/2020
Conduit and fiber (25@5600)	\$ 140,000	\$ 112,000	\$ 28,000	Present cost in fiber project	8/14/2020
Pedestals/Vaults (25*2925)	\$ 73,000	\$ 58,400	\$ 14,600	Present cost in fiber project	8/14/2020
Splicing	\$ 30,000	\$ 24,000	\$ 6,000	Present cost in fiber project	8/14/2020
Design and Mgmt (Contract)	\$ 135,000	\$ 50,000	\$ 85,000	Present cost in fiber project	8/14/2020
Service Installations					
Service Drops (219@\$600 ea)	\$ 131,400	\$ 105,000	\$ 26,400	Present cost in fiber project	8/14/2020
Construction Totals	\$ 2,029,400	\$ 1,558,400	\$ 471,000		
Additional Project Costs					
Firefly install & equip (219@\$400 ea)	\$ 87,600	\$ -	\$ 87,600	In kind labor & equip contribution	8/14/2020
Marketing and Promotion	\$ 15,000		\$ 15,000	In kind labor & cost contribution	8/14/2020
In House Project Mgmt and Oversight	\$ 125,000		\$ 125,000	In kind labor contribution	
In Kind Contribution Totals	\$ 227,600	\$ -	\$ 227,600		
PROJECT TOTALS	\$ 2,257,000	\$ 1,558,400	\$ 698,600		



14 August 2020

Documentation of Budget Costs

Central Virginia Services, Inc, d/b/a Firefly Fiber Broadband, is a wholly owned subsidiary of Central Virginia Electric Cooperative (CVEC). Since August 2018, CVEC has been building a system wide fiber network across its system. Each of the past two years have seen capital investments in the project of more than \$30 million. These active, ongoing projects have provided real time pricing that is the basis for our estimates.

The prices come from proprietary contracts with our design firm, fiber contractor, and our inventory & materials management contractor. They are customized by location, soil conditions, and unique aspects of construction in each area. There are multiple professional engineers on staff who oversee the project, value engineer it and assure there is efficient construction. We stand behind the project budgets. If there are any cost overruns, Firefly will be responsible for the additional funding to complete the project.

(RETAIN FOR YOUR RECORDS)
Form 477 Filing Summary

FRN: 0027729573 | Data as of: Dec 31, 2019 | Operations: Non-ILEC | Submission Status: Original - Submitted | Last Updated: Feb 26, 2020 22:03:52

Filer Identification

Section	Question	Response
Filer Information	Company Name	Central Virginia Services, Inc.
	Holding Company Name	Central Virginia Electric Cooperative
	SAC ID	199021
	499 ID	832816
Data Contact Information	Data Contact Name	Cheryl Sandas
	Data Contact Phone Number	(434) 263-8336 ext: 1502
	Data Contact E-mail	csandas@mycvec.com
Emergency Operations Contact Information	Emergency Operations Name	Ryan Coffey
	Emergency Operations Phone Number	(434) 282-7682
	Emergency Operations E-mail	rcoffey@fireflyva.com
Certifying Official Contact Information	Certifying Official Name	Gary Wood
	Certifying Official Phone Number	(434) 263-8336 ext: 1100
	Certifying Official E-mail	gwood@mycvec.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	Dec_2019_fbd_rev.csv	Feb 26, 2020 21:59:21	611
Fixed Broadband Subscription	Dec_2019_fbs_rev1.csv	Feb 26, 2020 21:29:25	17
Fixed Voice Subscription	Dec_2019_fvs_rev1.csv	Feb 26, 2020 21:23:14	7

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Virginia	Firefly Fiber Broadband	Optical Carrier/Fiber to the End User	611
Total			611

Fixed Broadband Subscriptions by State, Technology and End-user Type

State	Technology	End-user Type	Subscriptions
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Fixed Broadband Subscription

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Virginia	Optical Carrier/Fiber to the End User	17	1583	25	1608
Total		17	1583	25	1608

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
3.000	1.000	1	0	1
100.000	100.000	1163	21	1184
250.000	250.000	0	2	2
1000.000	1000.000	419	2	421
Total		1583	25	1608

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	3.000	1.000	1	0	1
	100.000	100.000	1163	21	1184
	250.000	250.000	0	2	2
	1000.000	1000.000	419	2	421
Total			1583	25	1608

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	337	324
Total	0	0	337	324

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

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	337	324	13	336	1	337	0	0	0
Total	337	324	13	336	1	337	0	0	0

