

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

Application ID: 95707052022090800
Application Status: Pending
Program Name: Virginia Telecommunication Initiative 2023 - Application
Organization Name: Greensville County
Organization Address: 1781 Greensville County Circle
Emporia, VA 23847-6347
Profile Manager Name: Linwood Pope Jr,
Profile Manager Phone: (434) 348-4232
Profile Manager Email: lpope@greensvillecountyva.gov

Project Name: Greensville County - Verizon FY23 VATI Project
Project Contact Name: Linwood Pope Jr,
Project Contact Phone: (434) 348-4232
Project Contact Email: lpope@greensvillecountyva.gov
Project Location: 1781 Greensville County Circle
Emporia, VA 23847-6347
Project Service Area: Greensville County, Emporia City

Total Requested Amount: \$2,956,774.80

Required Annual Audit Status: Accepted

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$2,956,774.80	\$4,435,162.20	\$7,391,937.00
Construction	\$2,956,774.80	\$4,435,162.20	\$7,391,937.00
Total:	\$2,956,774.80	\$4,435,162.20	\$7,391,937.00

Budget Narrative:

The applicant and co-applicant are not seeking administrative funds from DHCD for the proposed project. The cost estimate for the proposed project is based on construction cost only in an effort to keep the per passing cost as low as possible. The total cost of the project is \$7,391,937. The proposed project includes 1347 passing's at a total cost of \$5487 per passing. Verizon will fund 60% of the cost of the project which equates to \$4,435,162. Verizon's cost per passing is \$3,292. The applicant is requesting 40% of the project cost from DHCD's FY23 VATI Grant Funding cycle. The amount of VATI Funds being requested is \$2,956,774. The DHCD cost per passing would equate to \$2,195 Per DHCD's approval of Verizon's Confidentiality Request, Attachment12: Derivation of Cost and Attachment 13: Documents Supporting Cost Estimate are being emailed directly to DHCD.

Questions and Responses:

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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:

When the FY23 VATI Grant Funds were announced, Greensville County met with numerous service providers in an effort to help the County achieve its goal of making adequate broadband available to every location within Greensville County. Charter Communications, Verizon and Empower Broadband were eager to partner with Greensville County so the goal of universal broadband coverage could be achieved. Our team analyzed each service providers existing infrastructure within the county as well as the RDOF areas that Empower Broadband and Charter Communications were awarded. Our goal was to submit three FY23 VATI applications with the lowest cost per passing possible for each application in an effort to have three competitive applications and to lower the overall cost countywide to achieve adequate broadband coverage. Charter Communications RDOF awarded areas were in the southern portion of Greensville County and extended from the Brunswick County Line to the Southampton County Line and along the North Carolina border, so Charter could provide service at a cheaper cost per passing than Empower or Verizon could in that area of the County.

Empower was successful in obtaining RDOF Funds in the western portion of Greensville County, north of the City of Emporia and the northeastern portion of Greensville County. Since it was cheaper for Empower to serve this area, Greensville County joined the Southside Planning District Commissions Regional VATI application which seeks funds to provide adequate broadband service to Empowers service area within Greensville County.

Verizon has existing infrastructure in Greenville County and the City of Emporia. Our study determined that Verizon could provide broadband service at a cheaper cost per passing in the areas of Greensville County that border the city limits of Emporia.

Verizon's design addresses the 1,347 unserved and underserved addresses of the project area that Greensville County has asked Verizon to build because they today do not have access to qualifying broadband. Verizon proposes to deploy 54 miles of new fiber that will provide qualifying broadband to all of these locations.

Verizon is ready to move forward with this project. Verizon was the first to build fiber optic broadband on a large scale, and now serves over 6 million broadband customers with its Fios service. Verizon is a Fortune 20 company, but still has a local project office on the ground in the County. There are more than 6,600 Verizon employees across the Commonwealth of Virginia. Their capacity to fully staff the project with experienced, skilled, and reliable people is unmatched. This project team's command of the regulatory environment enables them to anticipate and tackle problems - local, state or federal - efficiently and completely. The Verizon team, from engineering to planning and project management to construction, leads the industry, as do the personnel who will assist customers once broadband is built. The same is true for the selected subcontractors and consultants.

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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:

There are five internet service providers in Greensville County, none of which offer 100/20 Mbps in the areas defined in this proposed project area. The five service providers in this area include: Charter Communications, Empower, Comcast, Kinex Telecom and Mid-Atlantic Broadband Communities Corp. Mid Atlantic Broadband Communities Corp. and Kinex Telecom only provide first mile and middle mile fiber in Greensville County.

When reviewing the Commonwealth Connect Maps and the census blocks in the proposed project areas, and by speaking directly to DHCD Staff, Empower Broadband, Charter Communications and Verizon, we determined that the current providers listed for those areas either did not provide any services, or the service that is currently provided is less than the 100/20 Mbps range and defined by the DCHD to be unserved areas. The included coverage maps document the need in this area for adequate broadband service.

Verizon offers DSL coverage, as well as mobile phone coverage in the County. These technologies offered in the County do not provide service that qualifies as broadband under VATI. The proposed project areas are a natural fit with Verizon's existing infrastructure, requiring only an upgrade to facilities rather than new backbone build. As noted later in this application, Verizon's Fios broadband Internet access service, which is offered elsewhere in the Commonwealth of Virginia, and which we propose to deploy here, offers speeds starting at 300Mbps/300Mbps all the way up to its Gigabit Connection service, which supports 940Mbps downloads and uploads to 880Mbps. These speeds are well in excess of VATI requirements.

Charter Communications and Comcast offer Cable Modem coverage but not at speeds that qualify as adequate broadband coverage as currently defined by DHCD.

Empower Broadband offers Optical Fiber technology in areas of Greensville County but does not offer service in the proposed project area.

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:

Both Empower and Charter Communication were successful in obtaining Rural Digital Opportunity Funds (RDOF) for various census blocks in Greensville County. Charter Communications received RDOF Funds in the southern portion of Greensville County below the City of Emporia, from the Brunswick County border to the Southampton County border. Empower was successful in obtaining RDOF Funds in the western portion of Greensville County, north of the City of Emporia and the northeastern portion of Greensville County.

The project area that is the subject of this application has not received any federal funds of any kind, i.e all passing locations included in this proposed project area lie outside of RDOF funded areas.

Please see Attachment 2: Documentation of Federal Funding Area, that shows areas of the county that have received federal funding.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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:

In an effort to determine if there was a possible service overlap with current providers in the project area, staff used the Commonwealth Connection Mapping System and was able to determine that no Fixed Wireless or DSL Providers have 25/3 service, nor 100/20 service listed as available in Greenville County. When reviewing the Commonwealth Connect Maps and the census blocks in the proposed project areas, and by speaking directly to DHCD Staff, Empower Broadband, Charter Communications and Verizon, we determined that the current providers listed for the proposed project area either did not provide any last mile services, or the service that is currently provided is at speeds below 100/20 Mbps range and defined by the DCHD to be unserved areas. After reviewing all available data we are confident that there will be very little if any service overlap within the project area. The included coverage maps document the need in this area for adequate broadband service.

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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:

COUNTY RESPONSE REQUIRED

- A. There are 1,347 locations in the proposed Verizon project area of which 1193 are residential, 15 are Non-home based businesses, 118 are Home-based businesses, 8 are Community anchors and 13 are Non-residential.
- B. There are no wireline RDOF passings in Verizon's proposed project area.
- C. At this time, Verizon does not anticipate application of special construction costs to any of the 1,347 passings. As noted elsewhere in this application, with respect to locations with long driveways or setbacks, or that are otherwise not able to be served directly from the public right of way, Verizon will follow its standard practice, as set forth in its Product Guide online. Typically, this results in no construction charges for residential Fios Home Internet customers for extension of drops to long setback structures. With respect to new residential subdivisions, multi-tenant dwelling units, commercial development, and mixed-used business and residential development within or outside of the project area, Verizon will follow its standard practices for delivery of service and network extensions, including recovery of costs, as set forth in its standard Product Guide. Verizon will also make an effort to promote DHCD's LECAP Program, where eligible.
- D. Not applicable. Please see the response to subsection C, preceding.
- E. There are 1347 structures in the project area that do not have access to internet speeds of at least 25 mbps download and 3mbps upload. Staff utilized the Commonwealth Connection Mapping System and consulted with DHCD to determine the speeds available in the project area did not meet current VATI criteria. The County's GIS Specialist utilized data provided by Verizon to determine that there were 1347 structures in the proposed service area.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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

Answer:

There are not any census blocks that were awarded Rural Digital Opportunity Funds included in this VATI application. All passing's in this VATI application are located outside of RDOF awarded areas.

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

Answer:

Not Applicable

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

Answer:

See Optional Attachment : NETWORK DESIGN

****The response exceeded maximum allowable characters and could not be saved in this section.**

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:

Verizon provides a wide range of Fios service offerings, which it continues to update and enhance. The most up-to-date information can always be found on Verizon's website. As noted in response to item 8, Fios is provided over a shared-bandwidth network, engineered, managed and maintained by Verizon. The technology to be deployed is GPON over FTTP, as also noted in response to item 8. Backhaul circuits from the Verizon central office to the Internet are typically Ethernet or wavelength services, and are managed to ensure sufficient capacity during peak busy periods, which may vary over time.

Verizon Fios Home Internet Plans

Verizon's Fios Home Internet plans are described in the marketing materials provided at <https://www.verizon.com/home/bundles/fios/>. Further information on those plans is provided below.

(Pricing as of 6/16/2022. Subject to Change)

Figure 1-1. Verizon Fios Home Internet Plans. Fios Home Internet offers the County the ability to enable modern, accessible, and future-ready Internet access for its residents.

Service Offering

Features

Application to DHCD Submitted through CAMS

Greenville County
Greenville County - Verizon FY23 VATI Project

Monthly Customer Price

Gigabit Connection

940/880 Mbps

\$89.99*

500 Mbps

500/500 Mbps

\$69.99**

300 Mbps

300/300 Mbps

\$49.99**

* Pricing reflects an Auto-Pay discount. Router rental is included in the monthly service price.

** Pricing reflects an Auto-Pay discount. Required router is included in the monthly service price.

Service Offering Features Plan Perks Price Notes

Gigabit Connection Ideal for a virtually seamless entertainment experience.

Download speeds up to 940 Mbps

Upload speeds up to 880 Mbps (25x faster than cable providers)

Included w/plan:

Whole-Home Wi-Fi (\$20/mo. value)

Router rental included + Wi-Fi extender provided (if recommended/requested)

\$89.99 Per month w/Auto Pay

Router rental included in monthly service price. Wi-Fi extender included in monthly service price (if deemed necessary by technician or on customer request).

500 Mbps Great for multiple users, binge streaming and sharing large files.

Download speeds up to 500 Mbps

Upload speeds up to 500 Mbps

Application to DHCD Submitted through CAMS

Greensville County
Greensville County - Verizon FY23 VATI Project

\$69.99

300 Mbps Stream and download movies, shows and photos.

Download speeds up to 300 Mbps

Upload speeds up to 300 Mbps

\$49.99

Fios Forward Discounted Plans (With ACP eligibility)

Verizon’s Fios Forward discounted plans (with ACP eligibility) are described at <https://www.verizon.com/home/fios-forward/>. Further information on those plans is provided below.

Figure 1-2. Verizon Fios Forward*–Fios Home Internet. Fios Forward, Verizon’s low-income Internet program, is designed to help make high-speed Internet with no data caps more accessible to customers who qualify for the ACP program and apply the ACP benefit to their Fios Internet Service.

Verizon Fios Forward Program*–Fios Home Internet

Service Offering
Features
Monthly Consumer Price
Gigabit Connection
940/880 Mbps
\$89.99 \$39.99 ¹
500 Mbps
500/500 Mbps
\$69.99 \$14.99 ²
300 Mbps
300/300 Mbps
\$49.99 FREE ²

Pricing reflects up to \$30/mo. ACP discount plus up to \$20/mo. Fios Forward discount for qualifying new and existing Fios Forward customers enrolled in the Affordable Connectivity Program and Auto-Pay. Auto-Pay is not required for participation in ACP or access to Fios Forward pricing.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

¹ Pricing reflects an Auto-Pay discount. Auto-Pay is not required for participation in ACP or access to Fios Forward pricing. Router rental is included in the monthly service price.

² Pricing reflects an Auto-Pay discount. Auto-Pay is not required for participation in ACP or access to Fios Forward pricing. Required router is not included in the monthly service price. Customers can bring their own router, purchase a router from Verizon, or rent a router for free from Verizon with a waiver through Fios Forward.

Gigabit Connection Ideal for a virtually seamless entertainment experience.

Download speeds up to 940 Mbps

Upload speeds up to 880 Mbps (25x faster than cable providers)

\$89.99 \$39.99 Per month w/Fios Forward + Affordable Connectivity Program

500 Mbps Great for multiple users, binge streaming and sharing large files.

Download speeds up to 500 Mbps

Upload speeds up to 500 Mbps

\$69.99 \$14.99 Per month w/Fios Forward + Affordable Connectivity Program

(discounts may vary)

300 Mbps Stream and download movies, shows and photos.

Download speeds up to 300 Mbps

Upload speeds up to 300 Mbps

\$39.99 FREE Per month w/Fios Forward + Affordable Connectivity Program (discounts may vary)

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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:

Greensville County has identified 3,489 locations that are unserved or underserved according to current VATI guidelines. Greensville County was planning initially to submit three FY23 VATI applications that, if successful would provide universal broadband coverage throughout Greensville County. Greensville County was planning to initially submit one application with **Empower** as its co-applicant, one application with **Verizon** as its co-applicant and one application with **Charter Communications** as its co-applicant to achieve universal coverage.

During the application process, Greensville County, at **Empowers** suggestion, elected to become a co-applicant in the Southside Planning Districts Commissions Regional FY23 VATI application. Both Empower and Greensville County feel that by partnering with the Southside Planning District Commission, we would stand a greater chance of receiving FY23 VATI Funds. If this regional application is successful in obtaining grant funds, it will provide adequate broadband service to 2041 unserved or underserved residences and businesses in Greensville County. On a percentage basis this application will provide adequate service for 58.5% of the unserved or underserved locations in the entire county.

Charter Communications and Greensville County identified 101 unserved or underserved residents and businesses located outside of Charter Communications RDOF areas that are unserved or underserved. 101 passings only represent 2.9% of the unserved or underserved locations in the entire county. Due to the large area of the proposed project, the cost per passing seemed to be too high to be competitive in the FY23 VATI Grant process. As a result, Charter Communications suggested that Greensville County enter into a partnership in lieu of submitting a FY23 VATI Application, to serve the 101 residents and businesses located outside of Charter Communications RDOF areas. After careful consideration, Greensville County has agreed to enter a partnership with Charter Communications to construct a broadband system that would serve the unserved and underserved in the southern portion of Greensville County. Charter has agreed to use the criteria set forth by DHCD for VATI awardees for this joint partnership and has agreed to complete the build out within two years of entering the agreement. By electing to enter a partnership with Charter Communications, we can guarantee that broadband service will be provided, rather than having to rely on obtaining grant funds from DHCD to build out this portion of the County. Please see a copy of the Draft Agreement between Greensville County and Charter Communications, and a map for the area to be served. The draft agreement is currently being reviewed by the County Attorney.

Verizon and Greensville County have identified 1347 residents and businesses that are unserved or underserved in the central part of Greensville County (around the City of Emporia). 1347 passings represent 38.6% of the unserved or underserved locations in the entire county. If this application is successful and the joint application with the Southside Planning District Commission is successful, 97.1% or 3388 of the 3,489 unserved or underserved locations in the county will have access to adequate broadband as defined by DHCD. The remaining 101 locations or 2.9% of the unserved or underserved locations will be constructed by Charter as a result of the partnership between Greensville County and Charter Communications.

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:

Verizon and Greensville County are ready to begin this project. Verizon has submitted a draft MOU to Greensville County. The draft MOU has been submitted to the County Attorney for review. Once the MOU review has been

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

completed and is acceptable to both Greensville County and Verizon, staff will present the MOU to the Greensville County Board of Supervisors for approval at their regularly scheduled meeting in October. Once the MOU has been executed, staff will forward a copy to DHCD.

Verizon's preliminary review indicates that virtually all of the locations to be served in the project area are already serviceable from Verizon's existing copper network in the County, over which Verizon has provided voice and other services as an ILEC. This project will directly overlay those copper facilities with fiber in an FTTP architecture.

Cost-effective, timely, and efficient access to existing aerial infrastructure greatly increases the likelihood of a broadband project being completed on time. Verizon has established good working relationships with the power companies in the County and has arrangements in place to access their utility poles for Verizon's aerial facilities.

Verizon has extensive experience working with the Virginia Department of Transportation (VDOT). Knowledge of VDOT's permitting processes and solid working relationships with agency personnel, including the ability to escalate matters and brainstorm creatively to overcome obstacles, is an essential and highly-desirable asset for any broadband network construction project that occupies VDOT right-of-way.

Verizon has the necessary arrangements in place with respect to equipment, supply chain, logistics, contract services, and regulatory compliance to complete the projects proposed in this application in the designated time frame. Verizon's fiber network expansion program adds on average more than 400,000 premises and over 5,000 route miles of new fiber to our network each year. It is these same time-tested and proven supply chain and related arrangements that will be leveraged to construct the network proposed in this application.

With respect to one of the key inputs--fiber optic cable and accessories--Verizon has a long-standing relationship with Corning, and is including a letter evidencing Corning's willingness and intent to meet Verizon's requirements for fiber under Corning's existing supply agreements with Verizon.

Verizon's labor force is in place, is stable, and has high rates of retention throughout Verizon - including the 6,600 Virginians already employed at Verizon. Verizon's large direct workforce of experienced, well-paid, represented employees live and work in the communities of the County and surrounding areas. Where needed, the contractors that work with Verizon are an established and stable group, whose members have a track record of long service prioritizing their work for Verizon and its customers.

The project management process that Verizon will use was developed as Verizon built tens of thousands of miles of FTTP network infrastructure around the U.S., beginning in 2005. The process is tested, proven and transparent.

Representative Project Schedule

Attachment 7 – Timeline/Project Management Plan is an 18-month representative project schedule that gives a high level layout of the activities described. The following points highlight key elements of the proposed Project Schedule:

- An 18 month overall timeline. The project will proceed as seen in the Gantt chart in attachment 7.
- Different colors on the chart are used to denote each phase.
- The Fios Ordering/Installation Phase is not in the scope of this project--it is wholly dependent on customers actually placing orders for Fios service. But it is listed in the Gantt chart to demonstrate the point at which that will be possible. Completion of construction and availability of service ordering will be determined by a negotiated verification and acceptance process to be implemented between Verizon and the County.
- Work does not begin on any phase of the project until the execution of a Broadband contract between Verizon and the County.

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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:

Greensville County was successful in obtaining VATI Funds in 2018 and CARES ACT Funds in 2020 to provide broadband services to residents in several areas of Greensville County.

2018 VATI:

Greensville County partnered with Mid-Atlantic Towers (Telpage) to provide wireless internet service in two areas of Greensville County. Greensville County was successful in obtaining \$162,334 in VATI Funds to implement the project. The Existing water towers owned by the Greensville County Water and Sewer Authority and existing cell phone towers owned by Mid-Atlantic Towers were utilized to install the necessary equipment to make wireless service available to over 500 citizens in the two service areas. The first project area included the Town of Jarratt and the surrounding portions of Greensville County and Sussex County. The second service area included the Pleasant Shade area in the western portion of Greensville County. This project provided speed up to 15/5 mbps, which by today's DHCD standards, are not considered adequate broadband. The project was completed on time and was a success.

CARES ACT BROADBAND PROJECT 2020:

Greensville County partnered with Empower Broadband and was successful in obtaining \$476,025 in CARES ACT funds to construct middle mile and last mile high-speed broadband infrastructure to 124 locations in Greensville County. The project area was in the southwestern portion of Greensville County along the North Carolina border. The project included the deployment of 7.70 miles of Distribution and Access class fiber to 124 locations along portions of the Brink Road, Beef Road, Acorn Road, Beaver Pond Road, Rosa Lane, and Pine Log Road. The project area included three home businesses and 35 school age children. The project was completed on time and within budget. The school-aged children in the project area were able to utilize the service for distance learning when the schools were closed due to the COVID pandemic.

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 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 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:

COUNTY RESPONSE REQUIRED

Greensville County will offer In-kind resources: grant management, acquisition of rights of way or easements, and waiving permit fees.

Verizon will provide at least 60% of the projected costs. Total projected costs are \$7,391,937 so the amount provided by Verizon will be approximately \$4,435,162 in cash.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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:

COUNTY RESPONSE REQUIRED

Verizon is committed to begin the work upon a successful award of the grant. Upon execution and acceptance from DHCD for these projects, Verizon is immediately prepared to begin activities. Verizon is excited to extend its existing internal FTTP build program to connect the rest of the unserved with its leading infrastructure on the East Coast.

As noted earlier in this application, the Verizon Proposed Network design significantly leverages its embedded network plant in the County. Verizon also has existing relationships with the local electric utility and VDOT. Verizon has a 15+ year track record of successfully deploying its FTTP network solution and Fios service to millions of homes up and down the East Coast.

Verizon's Credo starts with the phrase--"We have work because our customers value our high-quality communications services." That dedication and commitment to our customers is reflected in everything we do. Verizon has been the incumbent telephone company in the County for decades and has long-standing relationships with customers throughout the County. We believe these relationships, Verizon's name recognition, and the strength of the Verizon brand, will help accelerate adoption of its award-winning Fios Internet services for homes and businesses reached through this project.

Verizon's range of services and pricing plans--including plans for low-income customers that result in free broadband service after application of the FCC's Affordable Connectivity Program subsidy--provide an option for every budget.

The Verizon proposal also leverages Verizon's relationship with Verizon Wireless. Customers can save even more by bundling their Fios Internet service with certain Verizon Wireless 5G data plans--this is an attractive option for customers who already subscribe to Verizon Wireless mobile service.

For those residents who live in houses and multi-tenant buildings that are owned, built, or managed by major local, regional, and national companies, Verizon has a team with responsibility for working with those landlords or management companies. The Verizon Enhanced Communities (VEC) team is specifically tasked with establishing and maintaining relationships with building owners, developers/builders, and property management companies. Through the VEC Value Program, Verizon's team will help the building owner, developer/builder, or management company actively promote Fios as a key amenity to all the residents or homeowners, and provide the dedicated, end-to-end support that will keep them happy for years to come. Verizon's marketing arrangements allow VEC personnel to work with the customer to develop marketing programs to drive residents to purchase our Internet services. VEC customers also have the option to enter into a bulk arrangement with Verizon as part of which VEC provides discounted prices off our Fios retail services for residents of the building or development. VEC has strong relationships with builders such as NVR/Ryan Homes, Lennar, Pulte Homes and other large developed communities in Virginia, and looks forward to the possibility of strengthening existing relationships and forging new ones through the proposed Fios network expansion project in the County.

Because Verizon is an established provider, Fios customers benefit from a whole host of advanced capabilities and features:

Robust Firewall/Parental Controls. The Fios router is equipped with the latest Wi-Fi technology and has a robust firewall and parental control feature to give customers more control and security over their broadband experience.

Convenience. Fios Home Internet includes many convenient features. Multiple users can use the service simultaneously without sacrificing speed or bandwidth, even during peak hours.

Support. Verizon also provides professional installation services, and Fios service includes 24/7 technical support so customers can get answers when they need them.

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

CyberSecurity. Verizon is a recognized leader in cybersecurity. Verizon's Data Breach Investigative Report is an annual must-read for corporate and government CISOs, CSOs, CTOs, and CIOs. Verizon's global network security team has sensors deployed across our network, across America and around the world, and is always on the alert for the latest zero-day exploits and malicious activities. Verizon has relationships across industry and government that enable us to obtain the latest in threat intelligence. The cybersecurity countermeasures that Verizon's deploy on its backbone network to protect its business and government customers from hackers and other bad actors can benefit Fios customers whose services are connected to that same backbone network.

Privacy and an Open Internet. Verizon is strongly committed to customer privacy and to an open Internet, as evidenced by our Privacy Policy (<https://www.verizon.com/about/privacy/>) and Broadband Commitment (<https://www.verizon.com/broadbandcommitment>).

All of this, and more, will be brought to bear to maximize leverage and the success of the Verizon Project.

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. Explain how you plan on communicating the project status to stakeholders, including but not limited to County leadership, project areas residents, etc.

Greensville County will use as many resources as possible to communicate the status of the project to its stakeholders, County leadership, local businesses and area citizens through project updates provided at the Board of Supervisors meetings and posted on the county website. Greensville County staff will also work with the local newspaper and assist with the writing of newspaper articles that will keep the general public informed of the projects progress. At the completion of the project a news release will be sent to the local newspaper as well as the local radio stations. The County will also send out informational literature informing the public that adequate broadband is available when mailing out our monthly water and sewer bills. Staff will also work with the Greensville County Public School System to notify as many citizens as possible.

Regarding Verizon's communications, before the project launch kickoff meeting, Verizon's Engineering and Construction Leadership will meet with the County's appointed project manager. Together they will review the proposed list of participants, a draft slide deck containing the agenda, schedule (phases, milestones, etc.), roles and responsibilities, the phases, and dependencies by Verizon on approvals, permitting, etc. When those items have been reviewed and approved by the County's project manager, the date and time of the kickoff meeting will be set, and the participants notified of both a virtual and on-site meeting requiring their attendance. The slide deck will be finalized based on the outcome of the initial meeting. Further project reporting will follow DHCD's requirements, as well as the reporting structure as dictated by the County's Board of Supervisors.

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

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)

Verizon has well-established communications and marketing practices that will ensure that County residents are well-informed and up to date regarding

- the construction of broadband infrastructure in the Project area;
- the new Verizon Fios service that will be available to them;
- how to obtain or modify that Verizon Fios service, and;
- how to connect with Verizon to address their questions or customer service needs.

These efforts will include:

- Advance notice of construction - Letters, door hanger, or other notice for residents of areas where construction will be taking place.
- Web-based resources
- [Verizon/Fios page](#) - general information about Fios service, plans and pricing and how to subscribe, including a "Check Availability" widget that will allow residents simply to enter their street address to determine whether Fios service has become available in their area.
- Verizon's [Fios Forward](#) program- this page provides information about pricing for low income households, including the Fios Forward program which can leverage the federal ACP program to provide broadband internet service at no cost to qualifying households.
- [Digital Inclusion/Tech inclusion resources](#)
- [General Information and Customer Service Resources](#)
- Coordination with County staff, including County communications staff regarding major developments, general status and other matters.
- Marketing communications with the community and individual residents regarding the service that will become available to them.
- Communications with existing customers about the availability of broadband.

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.

The Greensville County Cooperative Extension office will provide free classes on digital literacy to ensure residents and businesses in the proposed project area sufficiently utilize broadband.

Verizon, for its part, is a leader in helping to address issues of digital literacy as part of its work to help bridge the Digital Divide.

For example, Verizon has established Citizen Verizon—its plan for economic, environmental, and social advancement. Through this program, Verizon is committing \$3B to build digital literacy by providing 10 million youths with digital access and skills training, 1M small businesses with resources to help them thrive in the digital economy, and to prepare 500,000 individuals for future jobs by 2030. Small businesses and residents can access specific information around these programs at <https://www.verizon.com/about/responsibility>.

In addition to enhanced connectivity, Verizon provides resources to students, parents, and teachers to support virtual learning activities. More specifically, Verizon has increased the scale of its education work with

Application to DHCD Submitted through CAMS

Greensville County

Greensville County - Verizon FY23 VATI Project

the STEM Activity Center, an online toolkit that provides STEM resources. These resources offer hands-on activities that students, teachers, and parents can leverage for remote and in-classroom learning created in partnership with non-profit partner Project Lead The Way, to help supplement at-home learning and to help with digital literacy.

Verizon has also built a credentialed teacher training program, created with education non-profit partner Digital Promise, focused on digital skills, remote learning, and digital coaching. Open to all educators across the country, including in the County, the courses will help teachers become more efficient and effective with technology-integrated instruction to help them navigate digital learning and provide a better virtual learning experience for students. Information on these programs is available at CitizenVerizon.com/DigitalInclusion.

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:

Organization

Department

Role

Description

Verizon

Engineering (OSP)

Senior Manager-Outside Plant

Responsible for the design, engineering, and implementation of Verizon wireline infrastructure in the ILEC footprint. Infrastructure includes fiber and associated equipment installed for new revenue generating services.

Verizon

Contract Services - Buried Structure

Senior Manager-Ntwk Operations

Responsible for planning, sourcing, and managing all external third-party vendors necessary to create any new paths for the Fiber Construction Team.

Verizon

Fiber Construction

Senior Manager-Ntwk Operations

Responsible for managing and overseeing all construction aspects of Verizon's FTTP and core fiber network, including the placing, splicing and test/ turnup of next-generation optical networks.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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:

Due to Verizon's Confidentiality request that was approved by DHCD, Attachment 12: Derivation of Costs and Attachment 13: Documentation Supporting Cost Estimates is being emailed to DHCD.

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

- a. Total VATI funding request
- b. Number of serviceable units
(up to 125 points)

Answer:

- a. **Total VATI Funding Request:** \$2,956,774.80
 - b. **Number of Serviceable Units:** 1,347 Passings
- $\$2,956,774.80 / 1,347 = \$2,195$ per passing

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. 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.

There are 8 community anchors in the project area. The anchors include: The Greenville County Elementary School, E.W. Wyatt Middle School, Greenville County Government Center, The Emporia/Greenville Department of Social Services, District 19 Community Services, the Virginia Employment Commission, Southside Virginia Education Center and the Greenville County Health Department. These community anchors, and educational facilities located within the

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

proposed project area will have a significant impact on the locality because of universal access to broadband.

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

The County of Greenville is partnering with the Department of Housing and Community Development, the Emporia Greenville Cooperative Extension Office, Verizon, Mecklenburg Electric Cooperative (Empower Broadband) and Charter Communications to bring adequate broadband to every residence and business in Greenville County.

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

The Greenville County Cooperative Extension office can provide free classes on digital literacy to ensure residents and businesses in the proposed project area sufficiently utilize broadband.

Verizon, for its part, is a leader in helping to address issues of digital literacy as part of its work to help bridge the Digital Divide.

For example, Verizon has established Citizen Verizon—its plan for economic, environmental, and social advancement. Through this program, Verizon is committing \$3B to build digital literacy by providing 10 million youths with digital access and skills training, 1M small businesses with resources to help them thrive in the digital economy, and to prepare 500,000 individuals for future jobs by 2030. Small businesses and residents can access specific information around these programs at <https://www.verizon.com/about/responsibility>.

In addition to enhanced connectivity, Verizon provides resources to students, parents, and teachers to support virtual learning activities. More specifically, Verizon has increased the scale of its education work with the STEM Activity Center, an online toolkit that provides STEM resources. These resources offer hands-on activities that students, teachers, and parents can leverage for remote and in-classroom learning created in partnership with non-profit partner Project Lead The Way, to help supplement at-home learning and to help with digital literacy.

Verizon has also built a credentialed teacher training program, created with education non-profit partner Digital Promise, focused on digital skills, remote learning, and digital coaching. Open to all educators across the country, including in the County, the courses will help teachers become more efficient and effective with technology-integrated instruction to help them navigate digital learning and provide a better virtual learning experience for students. Information on these programs is available at CitizenVerizon.com/DigitalInclusion.

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.

Please see Verizon's FOIA protected documents that discusses their efforts to mitigate supply chain constraints, labor shortages, delays in material. This information was submitted to VATI.com.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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.

The lack of universal broadband coverage is not only a technology issue; in the 21st century it is an essential infrastructure for the modern community and economic development. Broadband promotes growth of communities by providing; accessibility to health care through telemedicine, increases educational opportunities through distance learning, and opens up global opportunities for entrepreneurial businesses such as home-based and small businesses.

In this proposal, Verizon has modeled a representative network build that would provide County residents at certain currently unserved or underserved locations symmetrical, high-speed broadband internet access as a future-proof solution for their homes, schools, libraries, distance learning, telemedicine, and other uses, at affordable prices. With sufficient infrastructure in place that is capable of any kind of broadband application desired, the only challenge left is to educate the public on the doors open to them by this technology. This has been touched on earlier in terms of the digital literacy efforts, but the County and Verizon both plan to conduct activities to empower their constituents with the required knowledge to take full advantage.

Verizon has established Citizen Verizon—our plan for economic, environmental, and social advancement. Through this program, Verizon is committing \$3B to provide 10 million youths with digital access and skills training, 1M small businesses with resources to help them thrive in the digital economy, and to prepare 500K individuals for future jobs by 2030. Small businesses and residents can access specific information around these programs at <https://www.verizon.com/about/responsibility>.

In addition to enhanced connectivity, Verizon provides resources to students, parents, and teachers to support virtual learning activities. More specifically, Verizon has increased the scale of its education work with the STEM Activity Center, an online toolkit that provides STEM resources. These resources offer hands-on activities that students, teachers, and parents can leverage for remote and in-classroom learning created in partnership with non-profit partner Project Lead The Way, to help supplement at-home learning.

Universal coverage as enabled by this application will open new doors for every citizen in the County, but the work in educating the public in the ways they are being empowered is ongoing and evolving.

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

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 – XXXXXXXX
- e. Attachment 19 – XXXXXXXX
- f. Attachment 20 – XXXXXXXX

Answer:

N/A

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMaps825202222019.pdf

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

Attachment2DocumentationonFederalFundingArea824202295344.jpeg

Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnservedAreaVATICriteria825202224852.pdf

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project

Passings Form (Use template provided)

Attachment4PassingsForm824202295437.pdf

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

Attachment5RDOFAwardedAreasForminVATIArea825202221743.pdf

Timeline/Project Management Plan

Attachment7TimelineProjectMmanagementPlan824202295210.docx

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

Attachment8MOUMOAApplicantCoApplicant824202295220.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSourcesTable824202295231.pdf

Documentation of Match Funding

Attachment10DocumentationofMatchFunding824202295242.pdf

Letters of Support

OptionalAttachmentLettersofSupport825202245041.pdf

Two most recent Form 477 submitted to the FCC or equivalent

Attachment15Twomostrecent477FormssubmittedtoFCC824202295316.pdf

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

Attachment16pointsandPolygonShapefilesShowingProposedPassingsinProjectArea824202295906.zip

Optional

OPTIONALATTACMENTNETWORKDESIGN824202294221.docx

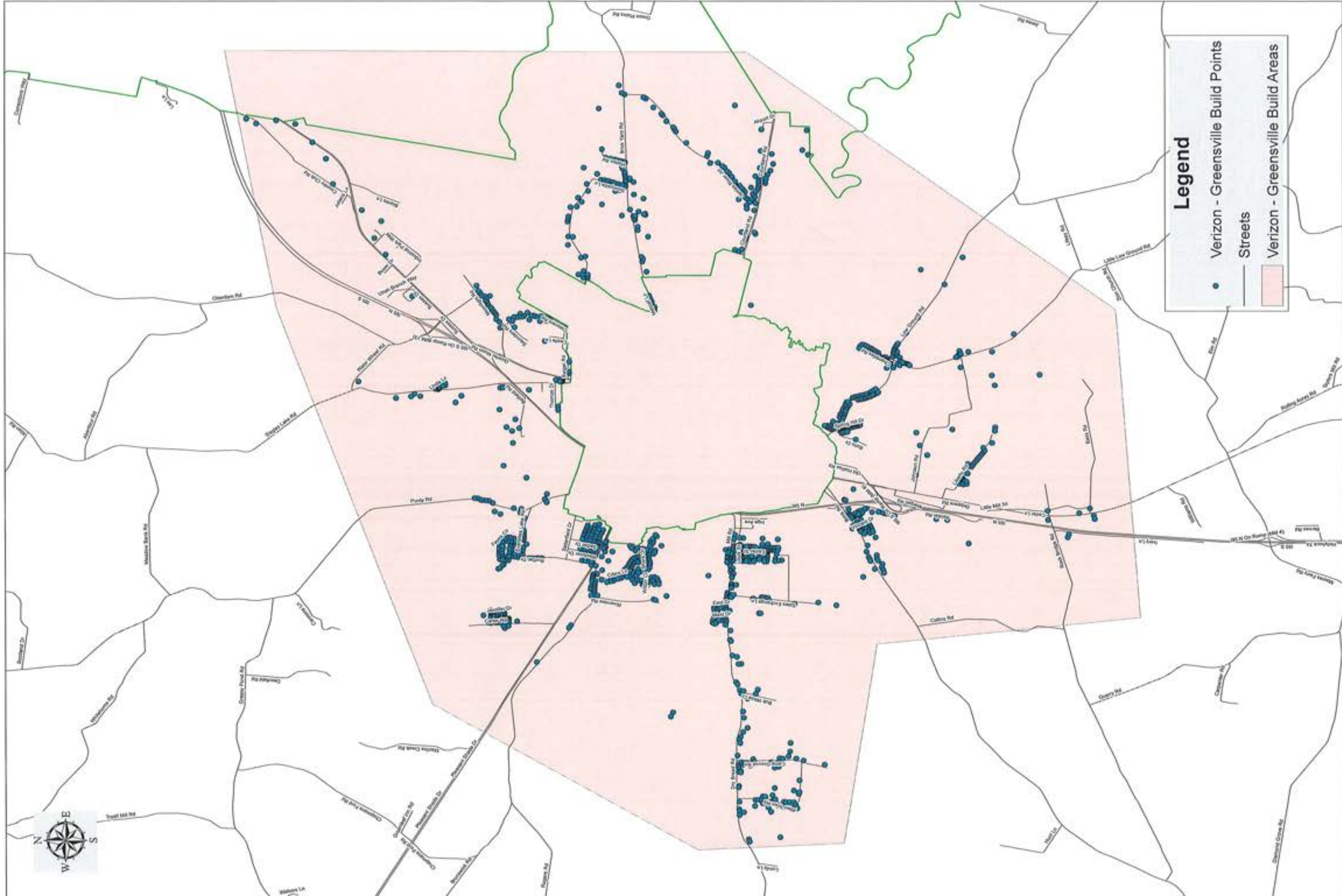
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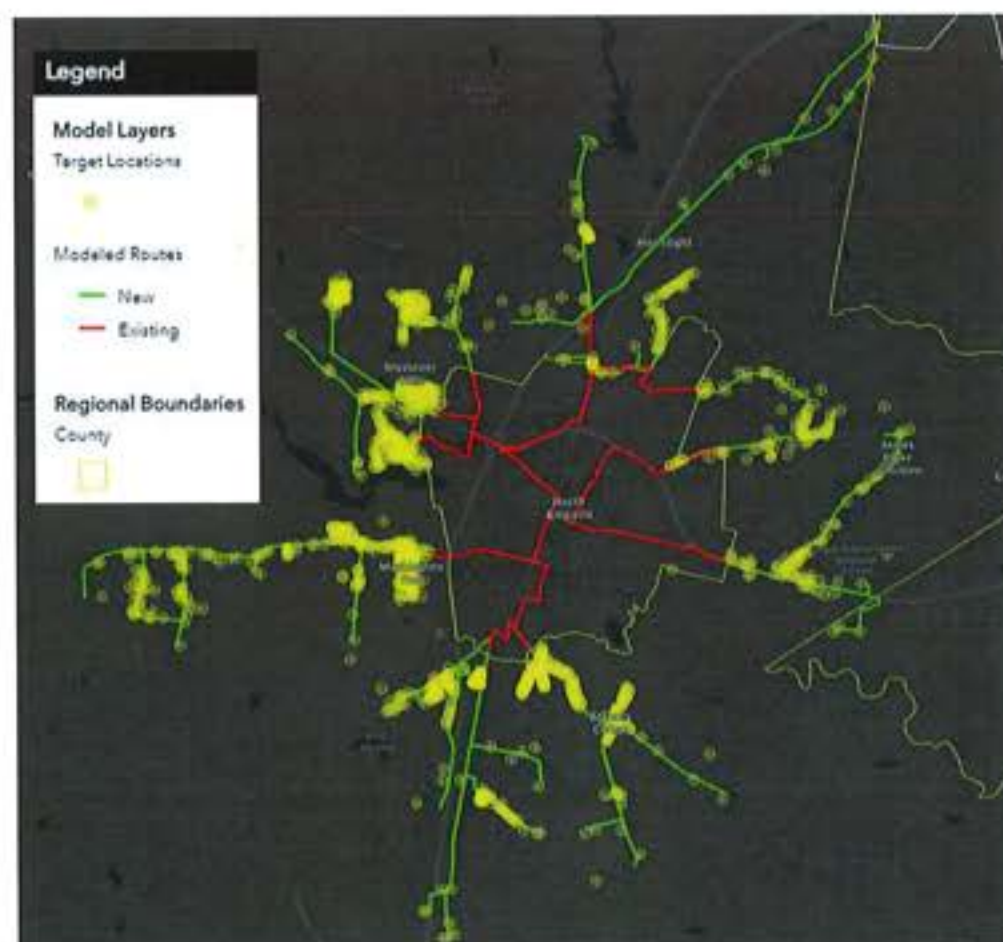
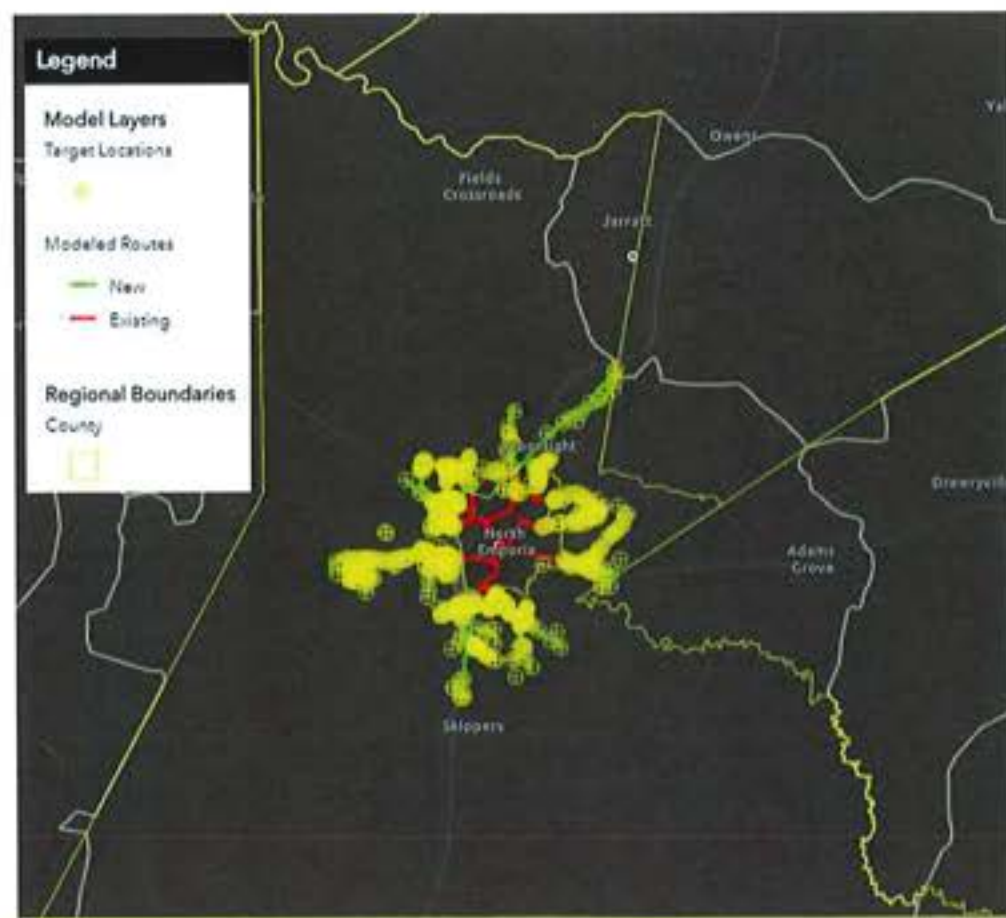
OptionalAttachmentGeographicAreaofProject825202240319.docx

Application to DHCD Submitted through CAMS

Greenville County

Greenville County - Verizon FY23 VATI Project





Speed Test
Download Speed, Upload Speed, and Latency

Broadband Coverage
FCC vs. Virginia Broadband, Speed, Technology

Broadband coverage is based on the amount of addresses served within a Census Block.

Virginia Collected DEC.2021

☐ At least one address served

Minimum Percentage Served in Census Block

☒ 95% ☐ 85% ☐ 80%

FCC Form 477 DEC.2020

☐ At least one address served

CRITERIA FOR COVERAGE

Speed

☐ ↓ 25 mbps ☐ ↑ 3 mbps

☒ ↓ 100 mbps ☐ ↑ 20 mbps

☐ ↓ 100 mbps ☐ ↑ Any

☐ ↓ 250 mbps ☐ ↑ Any

☐ ↓ 1000 mbps ☐ ↑ Any

* Coverage in layer is for speeds that are equal or greater than speed displayed.

Broadband Technology

☐ Any Broadband Technology

☐ Cable ☐ DSL/Copper

☒ Fiber ☐ Fixed Wireless

Boundaries

Census, Counties/Cities, Government Districts

Assets and Programs

WiFi, Towers, State and Non-Profit Programs

Locality

Greenville County

All broadband information is aggregated from all census blocks contained within the locality or jurisdiction.

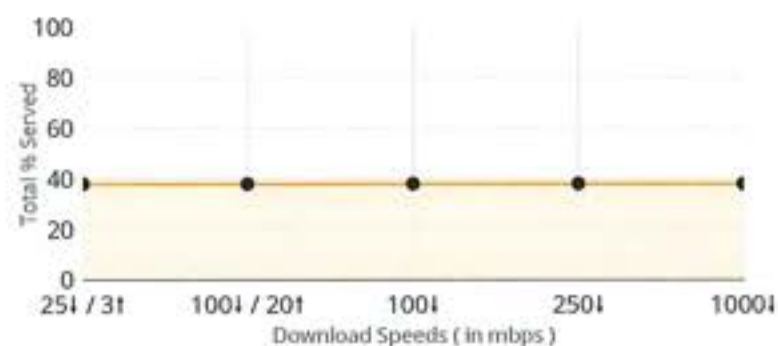
VA Collected • Dec 2021

FCC Form 477 • Dec 2020

Broadband Coverage

38% of addresses in this jurisdiction are served

Broadband Speed Coverage



Internet Service Providers

Charter Communications, Inc. (Spectrum Southeast, LLC)

↓ 1000 mbps

↑ 35 mbps

Cable Modem

Comcast

↓ 1200 mbps

↑ 35 mbps

Cable Modem

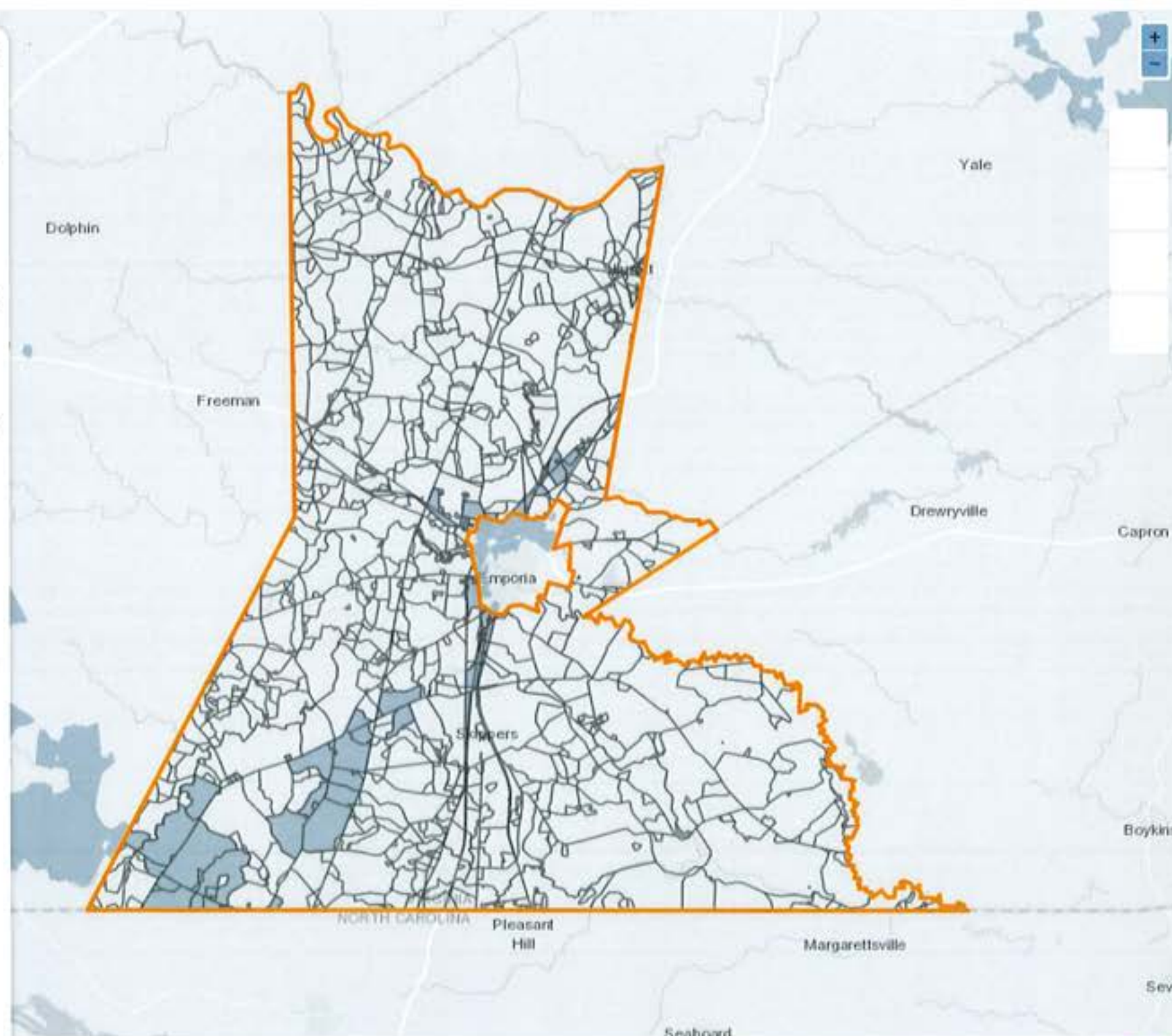
Empower Broadband

↓ 1000 mbps

↑ 1000 mbps

Optical/Fiber

Kinex Telecom



FIBER TECHNOLOGY



Speed Test
Download Speed, Upload Speed, and Latency



Broadband Coverage
FCC vs. Virginia Broadband, Speed, Technology

Broadband coverage is based on the amount of addresses served within a Census Block.



Virginia Collected DEC.2021

☐ At least one address served

Minimum Percentage Served in Census Block

☐ 95% ☐ 85% ☐ 80%



FCC Form 477 DEC.2020

☐ At least one address served

FILTERS FOR COVERAGE



Speed

☒ ↓ 25 mbps ↑ 3 mbps

☐ ↓ 100 mbps ↑ 20 mbps

☐ ↓ 100 mbps ↑ Any

☐ ↓ 250 mbps ↑ Any

☐ ↓ 1000 mbps ↑ Any

* Coverage in layer is for speeds that are equal or greater than speed displayed.



Broadband Technology

☐ Any Broadband Technology



Boundaries
Census, Counties/Cities, Government Districts



Assets and Programs
WiFi, Towers, State and Non-Profit Programs



Locality

Greenville County

All broadband information is aggregated from all census blocks contained within the locality or jurisdiction.

VA Collected • Dec 2021 FCC Form 477 • Dec 2020

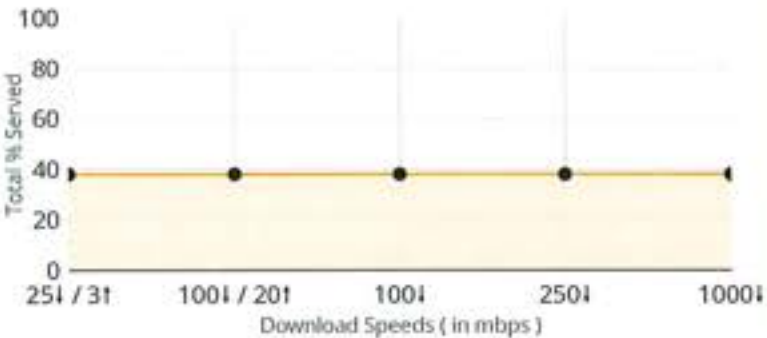


Broadband Coverage

38% of addresses in this jurisdiction are served



Broadband Speed Coverage





Internet Service Providers

Charter Communications, Inc. (Spectrum Southeast, LLC)

☒ ↓ 1000 mbps ↑ 35 mbps 

Comcast

☒ ↓ 1200 mbps ↑ 35 mbps 

Empower Broadband

DSL/COPPER TECHNOLOGY

Speed Test
Download Speed, Upload Speed, and Latency

Broadband Coverage
FCC vs. Virginia Broadband, Speed, Technology

Broadband coverage is based on the amount of addresses served within a Census Block.

Virginia Collected DEC. 2021

☐ At least one address served

Minimum Percentage Served in Census Block

☐ 95% ☐ 85% ☐ 80%

FCC Form 477 DEC. 2020

☐ At least one address served

FILTERS FOR COVERAGE

Speed

- ☒ ↓ 25 mbps
- ☐ ↑ 3 mbps
- ☐ ↓ 100 mbps
- ☐ ↑ 20 mbps
- ☐ ↓ 100 mbps
- ☐ ↑ Any
- ☐ ↓ 250 mbps
- ☐ ↑ Any
- ☐ ↓ 1000 mbps
- ☐ ↑ Any

* Coverage in layer is for speeds that are equal or greater than speed displayed.

Broadband Technology

☐ Any Broadband Technology

Boundaries

Census, Counties/Cities, Government Districts

Assets and Programs

WiFi, Towers, State and Non-Profit Programs

Locality

Greensville County

All broadband information is aggregated from all census blocks contained within the locality or jurisdiction.

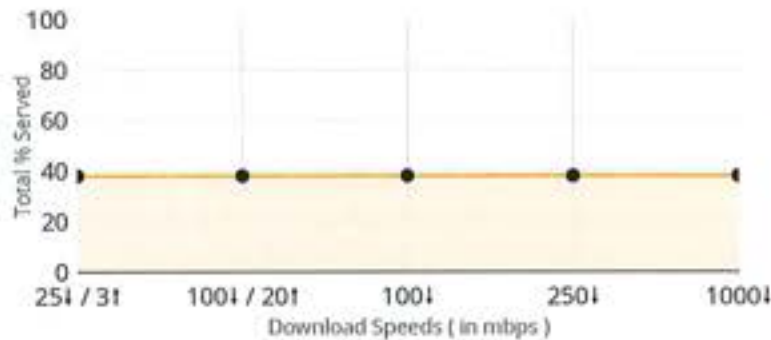
VA Collected • Dec 2021

FCC Form 477 • Dec 2020

Broadband Coverage

38% of addresses in this jurisdiction are served

Broadband Speed Coverage



Internet Service Providers

Charter Communications, Inc. (Spectrum Southeast, LLC)

↓ 1000 mbps ↑ 35 mbps  Cable Modem

Comcast

↓ 1200 mbps ↑ 35 mbps  Cable Modem

Empower Broadband

FIXED WIRELESS TECHNOLOGY

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	1193	1193	0	1193
Businesses (non-home based)	15	15	0	15
Businesses (home-based)	118	118	0	118
Community Anchors	8	8	0	8
Non-residential	13	13	0	13
Total	1347	1347	0	1347

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.

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

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

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

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

Definitions

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

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

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

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

2023 Virginia Telecommunication Initiative (VATI) RDOF Passings Form

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

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.).

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.

ATTACHMENT 7

TIMELINE/PROJECT MANAGMENT PLAN

[illegible]

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") entered into on this 23th day of August, 2022, by and between Verizon South Inc., located at 22001 Loudoun County Parkway, Ashburn, VA, 20147 hereinafter referred to as "Verizon", and the County of Greenville, Virginia, a political subdivision of the Commonwealth of Virginia, with an office at 1781 Greenville County Circle, Emporia, VA 23847, hereinafter referred to as the "County" (Verizon and County are collectively referred to as the "Parties"), for the purpose of establishing and achieving various goals and objectives relating to the project contemplated by the Parties.

WHEREAS, the Parties are desirous to enter into this Memorandum to set forth the working arrangements that both Parties agree shall be necessary to pursue their efforts to bring the Project to fruition;

MISSION

The Project is intended to provide the areas of the County with access to broadband Internet service ("Broadband"), in order to meet the future needs of residents and businesses in those areas of the County.

PURPOSE AND SCOPE

The Parties intend for this Memorandum to outline the structure for any binding contracts which the Parties may enter into in the future related to the Project.

OBJECTIVES

The Parties agree to work together to attempt to secure funding and establish policies and procedures that will promote and sustain a market for Broadband availability and intend to work toward delivering a product and/or services that meet or exceed business and industry standards.

RESPONSIBILITIES AND OBLIGATIONS OF THE PARTIES

The Parties agree to work together in good faith and collaboratively in an effort to bring the Project to successful completion. This Memorandum does not create any legal or equitable obligations or rights on the part of either Party and no such obligations or rights shall exist unless and until such time as the Parties may enter into a written agreement signed by both Parties.

SERVICES COOPERATION

The goal of the Project is to provide the following services in the areas of the County contemplated in the Project, which services include, but are not necessarily limited to:

Broadband Internet access services

Phase 1 (beginning after MOU execution): The Parties will work together to apply for Virginia Telecommunication Initiative (“VATI”) grant(s). The Parties anticipate that VATI guidelines will require contributions by Verizon and by the County as matching funds to secure a FY2023 VATI Grant through the Virginia DHCD. DHCD funding shall not exceed 80% of Project costs. The total budget for the Project is expected to be approximately \$7,400,000. Verizon agrees to provide a minimum match of \$4,440,000 in funding for the Project. The total number of homes projected to be passed by the Project shall be at least 1,347.

Phase 2 (beginning after Phase 1): Verizon will work with the County to continue Project planning and the Parties will seek additional State and local funding to expand the availability of Broadband service in the County.

TIMELINE

The above outlined scope and objective shall be contingent on the Parties’ ability to obtain the necessary funding required for the Project, as described in any applicable grant or business loan application. Responsibilities with regard to commencement and completion of the Project will be established in any future agreement between the Parties, and may coincide with the period specified in connection with any grants awarded in connection with the Project.

TERM

This MOU shall remain in effect, subject to the termination provisions in this MOU, up until the Parties mutually determine whether they are able to move forward with the Project.

If the Parties are successful in securing sufficient grant funding that they are both willing to move forward with the Project, then they agree to use good faith efforts to negotiate, execute and deliver a formal contract regarding the Project (“Project Agreement”). The Parties contemplate that a Project Agreement will contain terms and conditions, representations, warranties, covenants, and other provisions that are customary in service arrangements of the sort contemplated in this MOU. If the Parties are unable to agree on the terms and conditions of a Project Agreement within 60 days of receiving notice of the award of such grant funding, then either Party may give notice of the termination of this MOU. In that event, the Parties shall have no further obligations to each other under this MOU except for any obligations which are specifically provided to survive a termination of this MOU. This MOU does not create any legal or equitable obligations or legal rights.

AMENDMENT OR CANCELLATION OF THIS MEMORANDUM

This Memorandum may be amended or modified at any time in writing by mutual agreement of both Parties.

In addition, this MOU may be cancelled by either Party without cause on sixty (60) days advance written notice. This MOU may be terminated for cause, where cause for termination may include, but is not limited to, a material breach of any of the provisions contained herein, upon delivery of written notice of such termination to the other Party.

GENERAL PROVISIONS

The Parties acknowledge and understand that they must be able to fulfill their responsibilities under this MOU in accordance with the provisions of the law and regulations that govern their activities. Nothing in this Memorandum is intended to negate or otherwise render ineffective any such provisions or operating procedures. The Parties assume full responsibility for their performance under the terms of this Memorandum.

If at any time either Party is unable to perform its duties or responsibilities under this MOU consistent with such Party's statutory and regulatory mandates, the affected Party shall immediately provide written notice of such to the other Party and, if possible, establish a date for such performance.

LIMITATION OF LIABILITY

No rights or limitation of rights shall arise or be assumed between the Parties as a result of the terms of this MOU.

ARBITRATION/MEDIATION DISPUTE RESOLUTION

The Parties to this MOU agree that should any dispute arise regarding any aspect of their relationship or the Project, including, but not limited to, any matters, disputes or claims, the Parties shall confer in good faith to promptly resolve any such dispute. In the event that the Parties are unable to resolve the issue or dispute between them, then the matter shall be subject to non-binding mediation in an attempt to resolve any and all issues between the Parties.

The Parties agree that venue for any claim or dispute that arises from or through this MOU shall be in the state and Federal courts for Greensville County, Virginia.

NOTICE

Any notice or communication required or permitted under this MOU shall be sufficiently given if delivered in person or by certified mail, return receipt requested, to the address

set forth in the opening paragraph or to such address as one may have furnished to the other in writing.

GOVERNING LAW

This MOU shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, exclusive of its conflicts of laws rules.

SEVERABILITY CLAUSE

In the event that any provision of this Memorandum shall be deemed to be severable or invalid, and if any term, condition, phrase or portion of this Memorandum shall be determined to be unlawful or otherwise unenforceable, the remainder of the Memorandum shall remain in full force and effect, so long as the clause severed does not affect the intent of the Parties. If a court should find that any provision of this Memorandum to be invalid or unenforceable, but that by limiting said provision it would become valid and enforceable, then said provision shall be deemed to be written, construed and enforced as so limited.

ASSIGNMENT

Neither Party may assign this Memorandum without the prior written consent of the non-assigning Party, whose approval shall not be unreasonably withheld or conditioned. Notwithstanding the foregoing, Verizon shall have the right to assign this MOU without the County's consent to any parent, subsidiary, affiliate, or any person, firm, or corporation that shall control, be under the control of, or be under common control with Verizon, or to any entity into which Verizon may have merged or consolidated or which purchases all or substantially all of the assets of Verizon.

ENTIRE UNDERSTANDING

This MOU reflects the entire understanding and agreement of the Parties pertaining to all matters contemplated hereunder.

MOU SUMMARIZATION

The Parties to this MOU have mutually acknowledged and agreed to the following:

- The Parties to this MOU shall work together in a cooperative and coordinated effort, and in a manner and fashion intended to bring about the achievement and fulfillment of the goals and objectives of the Project.
- It is not the intent of this MOU to restrict the Parties from their involvement in or participation with any other public or private individuals, agencies or organizations or opportunities.

- The Parties to this MOU shall mutually contribute and take part in any and all phases of the planning and development of the Project, to the fullest extent possible.
- This MOU is not a binding contract, and it is not the intent or purpose of this MOU to create any rights, benefits, obligations and/or trust responsibilities by or between the Parties.
- This MOU shall in no way hold or obligate either Party to supply or transfer funds to maintain and/or sustain the Project or the effort to bring it to fruition.
- Should there be any need or cause for the reimbursement or the contribution of any funds to or in support of the Parties' efforts relating to the Project, then such shall then be done in accordance with applicable Virginia laws, regulations and/or procedures, and any Project Agreement which the Parties may enter into in the future.
- In the event that it should become necessary to provide funding for the effort to develop the Project, then any such endeavor shall be addressed in a separate and mutually agreed upon written agreement signed by the Parties or their representatives, in accordance with applicable laws and regulations, and in no way does this MOU provide such right or authority or obligate any Party to provide any such funding.
- The Parties have the right to individually or jointly terminate their participation in this MOU provided that advanced written notice is delivered to the other Party as provided for herein.

[REMAINDER OF PAGE LEFT BLANK]

AUTHORIZATION AND EXECUTION

The signing of this Memorandum of Understanding does not constitute a formal undertaking, and as such it simply reflects the intentions of the Parties to undertake preliminary efforts to achieve the goals and objectives stated in this MOU.

IN WITNESS WHEREOF, the Parties hereto have set their hands as of the day and year first above written.

Verizon

By:

Title:

GREENSVILLE COUNTY, VIRGINIA

By:

VATI FUNDING SOURCES TABLE

Source	Amount	%	Status
REQUESTED VATI	\$ 2,956,775	40%	Pending
VERIZON	\$ 4,435,162	60%	CASH IN HAND
	\$		
	\$		
	\$		
	\$		
	\$		
TOTAL	\$7,391,937	100 %	



August 23, 2022

Mr. Linwood E. Pope Jr.
Director of Planning
1781 Greensville County Cir
Emporia, VA 23847

Dear Mr. Pope,

The purpose of this letter is to provide documentation regarding the matching cash funding contributions for the broadband project that Greensville County will propose to the Virginia Telecommunication Initiative ("VATI") program in its grant application.

The proposed project represents a joint initiative between Verizon and Greensville County. As indicated in our application, Verizon will provide approximately 60% of the projected costs. Total projected costs are \$7,391,937, so the amount provided by Verizon will be approximately \$4,435,162 in cash.

Should you have any questions regarding the information listed above, please do not hesitate to contact me.

Best regards,

A handwritten signature in blue ink, appearing to read "Lori Fountain".

Lori Fountain
Director of Broadband Strategy



August 23, 2022

Mr. Linwood E. Pope Jr.
Director of Planning
1781 Greensville County Cir
Emporia, VA 23847

Dear Mr. Pope,

The purpose of this letter is to provide documentation regarding the matching cash funding contributions for the broadband project that Greensville County will propose to the Virginia Telecommunication Initiative ("VATI") program in its grant application.

The proposed project represents a joint initiative between Verizon and Greensville County. As indicated in our application, Verizon will provide approximately 60% of the projected costs. Total projected costs are \$7,391,937, so the amount provided by Verizon will be approximately \$4,435,162 in cash.

Should you have any questions regarding the information listed above, please do not hesitate to contact me.

Best regards,

A handwritten signature in blue ink, appearing to read "Lori Fountain".

Lori Fountain
Director of Broadband Strategy

Placeholder for Attachment 12 – Derivation of Costs (CONFIDENTIAL)

Verizon is a national internet service provider with significant expertise in project development and implementation costs. Additional documentation to support derivation of costs has been provided to the Department of Housing and Community Development under a FOIA exemption.

Placeholder for Attachment 13 – Documentation to Support Cost Estimates (CONFIDENTIAL)

Verizon is a national internet service provider with significant expertise in project development and implementation costs. Additional documentation to support cost estimates has been provided to the Department of Housing and Community Development under a FOIA exemption.



COMMONWEALTH OF VIRGINIA
HOUSE OF DELEGATES
RICHMOND

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

SEVENTY-FIFTH DISTRICT

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

August 19, 2022

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

Dear Mr. Horn,

I write in strong support of expanding high speed internet services into Greenville County by recommending the approval of Verizon's application to the Virginia Department of Housing & Community Development's (DHCD) Virginia Telecommunications Initiative (VATI) grant program. Once approved, Verizon will extend its existing fiber network to deliver high speed broadband to 1350 unserved and underserved residences and businesses in Greenville County. This project will result in thirty-four miles of fiber being installed.

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

I support Verizon's application fully in order to allow Greenville County to join the rest of the counties in the 75th House District so they will have a plan toward high speed Internet. Verizon's proposed solution will provide internet speeds up to one gigabit per second upload & download.

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

Respectfully,

A handwritten signature in black ink, appearing to read "H. Otto Wachsmann, Jr.", with a long horizontal line extending to the right.

H. Otto Wachsmann, Jr.
75th District, Virginia House of Delegates

A. DONALD McEACHIN

4TH DISTRICT, VIRGINIA

WASHINGTON OFFICE

314 CANNON HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-6365

RICHMOND DISTRICT OFFICE

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

SUFFOLK DISTRICT OFFICE

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



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

COMMITTEE ON ENERGY AND COMMERCE

ENERGY

ENVIRONMENT AND CLIMATE CHANGE

COMMUNICATIONS AND TECHNOLOGY

COMMITTEE ON NATURAL RESOURCES

OVERSIGHT AND INVESTIGATIONS

ENERGY AND MINERAL RESOURCES

SELECT COMMITTEE ON THE CLIMATE CRISIS

August 17, 2022

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

Dear Ms. Holmes:

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

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

Greensville faces unique challenges being a more rural county and having less houses per road mile. This creates a unique barrier to broadband access when working with providers to provide coverage for every County resident and property. Greensville has proposed a unique and innovative plan to meet these challenges; in partnership with a service provider to connect over 1200 properties, some that have no service and some with very little. Access to high-speed internet is crucial for every home and nearly every new business; this coverage could encourage businesses to the area and offer more opportunities for telework in Greensville County.

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

Sincerely,

A. Donald McEachin

A. Donald McEachin
Member of Congress

CRATER PLANNING DISTRICT COMMISSION

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

August 8, 2022

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

Dear Mr. Pope,

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

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

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

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

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

Sincerely,



Dr. Lydia Pettis Patton
Interim Executive Director
Crater Planning District Commission

Dr. Charlette T. Woolridge
County Administrator

Gary L. Cifers
Assistant County Administrator

Natalie B. Slate
Director of Economic Development

Dr. Terrence Wood
Director of Human Resources

Russell O. Slayton, Jr.
County Attorney
August 22, 2022



Belinda D. Astrop
Vice-Chairman
Election District 1

James R. Brown
Election District 2

William B. Cain
Election District 3

Tony M. Conwell
Chairman
Election District 4

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

Dear Dr. Holmes:

As the Greenville County Administrator, I offer this letter of support for Greenville County's application to the Virginia Department of Housing & Community Development's (DHCD) Virginia Telecommunications Initiative (VATI) grant program. If approved, the County's three projects (two VATI projects and a partnership project with Charter Communications) will extend its existing fiber network, supplemented by Rural Digital Opportunity Fund (RDOF) awards, to deliver high speed service to some 3,493 unserved and underserved addresses within Greenville County.

The County's two project applications are a joint effort made in partnership with Empower, Verizon and Greenville County where broadband capability is severely limited. The residents and businesses of Greenville County lack the internet speeds required to meet the newest broadband standard of 100Mbps download and 20Mbps upload.

The proposed partnership solution will immediately provide symmetrical speeds up to 1Gigabit per second upload and download. This will greatly enhance the area's ability to compete in today's marketplace as well as promote educational opportunities, economic development, and boost the medical accessibility of our citizens.

I fully support the efforts of Greenville County to seek Federal FY 23 VATI funding. The County is committed to supporting these two VATI projects with Empower and Verizon and are looking forward to collaboration efforts in order to enhance the County for its citizens and business partners.

Sincerely,


Dr. Charlette T. Woolridge
County Administrator

Dr. Charlette T. Woolridge
County Administrator

Gary, L. Cifers
Assistant County Administrator

Natalie B. Slate
Director of Economic Development

Dr. Terrence Wood
Director of Human Resources

Russell Slayton
County Attorney



Belinda Astrop
Vice-Chair
Election District 1

James Brown
Election District 2

William Cain
Election District 3

Tony Conwell
Chair
Election District 4

August 9, 2022

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

Dear Mr. Pope,

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

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

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

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

Sincerely,

Natalie B. Slate

Natalie B. Slate
Director of Economic Development

Dr. Charlette T. Woolridge
County Administrator

Gary L. Cifers
Assistant County Administrator

Natalie B. Slate
Director of Economic Development

Dr. Terrence Wood
Director of Human Resources

Russell O. Slayton, Jr.
County Attorney



Belinda D. Astrop
Vice-Chairman
Election District 1

James R. Brown
Election District 2

William B. Cain
Election District 3

Tony M. Conwell
Chairman
Election District 4

August 9, 2022

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

Dear Dr. Holmes:

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

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

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

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

Sincerely,

Linwood E. Pope, Jr.
Director of Planning



August 22, 2022

Mr. Linwood E. Pope Jr.
Director of Planning
1781 Greensville County Cir
Emporia, VA 23847

Dear Mr. Pope,

I am writing to confirm that the Form 477 information filed by Verizon with the FCC in the name of Verizon Virginia LLC includes all Virginia study areas of Verizon South Inc. as well as information representing the Verizon South Inc. Form 499 entity, and thus satisfies Verizon South Inc.'s Form 477 regulatory reporting obligations.

Best regards,

Timothy Vogel

Timothy Vogel
Senior Managing Associate General Counsel
Verizon

Form 477 Filing Summary

FRN:
0002073203

Data as of:
Jun 30, 2021

Operations:
ILEC

Submission Status:
Original - Submitted

Last Updated:
Aug 19, 2021 12:43
PM

Filer Identification

Section	Field	Response
Filer Information	Company Name	Verizon Virginia LLC
	Holding Company Name	Verizon Communications Inc.
	Filing Type	ILEC
	SAC ID	190233,190479,195040
	499 ID	803630,806307
Data Contact Information	Data Contact Name	Ian Dilner
	Data Contact Phone Number	(202) 515-2458
	Data Contact E-mail	ian.dilner@verizon.com
Emergency Operations Contact Information	Emergency Operations Name	Andis Kalnins
	Emergency Operations Phone Number	(908) 559-1123
	Emergency Operations E-mail	andis.i.kalnins@verizon.com
Certifying Official Contact Information	Certifying Official Name	Radhika Poduri
	Certifying Official Phone Number	(703) 694-4440
	Certifying Official E-mail	radhika.poduri@verizon.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	VA_BB_Deploy.txt	Aug 19, 2021 12:12 PM	119,884
Fixed Broadband Subscription	VA_BB_Sub.txt	Aug 19, 2021 12:12 PM	15,440
Fixed Voice Subscription	VA_Voice_Sub_Upload.txt	Aug 19, 2021 12:12 PM	2,800

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
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State	DBA Name	Technology	Blocks
Virginia	Verizon Virginia LLC	Asymmetric xDSL	81,766
		Optical Carrier/Fiber to the End User	38,098
Total			119,864

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Virginia	Asymmetric xDSL	5,093	60,659	17,797	78,456
	Optical Carrier/Fiber to the End User	10,115	936,311	29,130	965,441
	Other Copper Wireline	217	0	9,727	9,727
	Symmetric xDSL	15	0	15	15
Total		15,440	996,970	56,669	1,053,639

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
0.384	0.384	0	310	310
0.512	0.512	0	854	854
0.768	0.128	298	64	362
0.768	0.768	0	5	5
1.000	0.384	6,785	1,270	8,055
1.500	0.128	16	31	47
1.500	0.384	48	151	199
3.000	0.768	39,686	8,675	48,361
3.000	1.000	503	29	532
4.000	4.000	0	5	5
5.000	0.768	38	2,009	2,047
5.000	2.000	19	0	19
6.000	6.000	0	4	4
7.000	0.768	10,080	4,359	14,439
10.000	1.000	11	4	15
10.000	2.000	956	7	963

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
10.000	10.000	0	379	379
15.000	1.000	3,697	1,234	4,931
15.000	2.000	15	1	16
15.000	5.000	1,948	33	1,981
15.000	15.000	1,677	2	1,679
20.000	5.000	1,235	16	1,251
20.000	10.000	621	12	633
20.000	20.000	8	0	8
22.000	22.000	0	10	10
25.000	15.000	189	7	196
25.000	25.000	6,356	512	6,868
30.000	5.000	1,334	65	1,399
35.000	35.000	43	40	83
50.000	10.000	4,046	150	4,196
50.000	20.000	7	11	18
50.000	25.000	48	3	51
50.000	35.000	38	3	41
50.000	50.000	32,350	1,126	33,476
75.000	35.000	61	9	70
75.000	75.000	92,597	4,462	97,059
100.000	100.000	262,206	17,445	279,651
150.000	35.000	0	7	7
150.000	150.000	18,627	5,578	24,205
300.000	65.000	38	0	38
300.000	300.000	12,138	4,603	16,741
500.000	500.000	10,761	71	10,832
940.000	880.000	488,490	3,113	491,603
Total		996,970	56,669	1,053,639

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Asymmetric xDSL	0.768	0.128	298	64	362
	1.000	0.384	6,785	1,270	8,055

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Optical Carrier/Fiber to the End User	1.500	0.128	16	31	47
	1.500	0.384	48	151	199
	3.000	0.768	39,686	8,675	48,361
	5.000	0.768	38	2,009	2,047
	7.000	0.768	10,080	4,359	14,439
	10.000	1.000	11	4	15
	15.000	1.000	3,697	1,234	4,931
	3.000	1.000	503	29	532
	5.000	2.000	19	0	19
	10.000	2.000	956	7	963
	10.000	10.000	0	90	90
	15.000	2.000	15	1	16
	15.000	5.000	1,948	33	1,981
	15.000	15.000	1,677	2	1,679
	20.000	5.000	1,235	16	1,251
	20.000	10.000	621	12	633
	20.000	20.000	8	0	8
	25.000	15.000	189	7	196
	25.000	25.000	6,356	512	6,868
	30.000	5.000	1,334	65	1,399
	35.000	35.000	43	40	83
	50.000	10.000	4,046	150	4,196
	50.000	20.000	7	11	18
	50.000	25.000	48	3	51
	50.000	35.000	38	3	41
	50.000	50.000	32,350	1,042	33,392
	75.000	35.000	61	9	70
	75.000	75.000	92,597	4,462	97,059
	100.000	100.000	262,206	9,264	271,470
	150.000	35.000	0	7	7
	150.000	150.000	18,627	5,578	24,205
	300.000	65.000	38	0	38

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
	300.000	300.000	12,138	4,503	16,741
	500.000	500.000	10,761	71	10,832
	940.000	880.000	488,490	3,113	491,603
Other Copper Wireline	0.384	0.384	0	300	300
	0.512	0.512	0	854	854
	4.000	4.000	0	5	5
	6.000	6.000	0	4	4
	10.000	10.000	0	289	289
	22.000	22.000	0	10	10
	50.000	50.000	0	84	84
	100.000	100.000	0	8,181	8,181
Symmetric xDSL	0.384	0.384	0	10	10
	0.768	0.768	0	5	5
Total			996,970	56,669	1,053,639

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	605,764	212,067	397,574	388,096
Total	605,764	212,067	397,574	388,096

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Virginia	69,646	13,925
Total	69,646	13,925

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

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Business/Govt.	
				& No PIC	& PIC	& No PIC	& PIC
Virginia	605,764	259,607	346,157	44,882	167,185	311,732	81,965

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Business/Govt.	
				& No PIC	& PIC	& No PIC	& PIC
Total	605,764	259,607	346,157	44,862	167,185	311,732	81,965

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

State	Total	by Ownership			by Last-Mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Virginia	605,764	605,764	0	0	34,603	0	0	571,161
Total	605,764	605,764	0	0	34,603	0	0	571,161

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/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	397,574	388,096	9,478	394,022	3,552	397,574	0	0	0
Total	397,574	388,096	9,478	394,022	3,552	397,574	0	0	0

Reminder: You must continue to use Census 2010 geographic codes in FCC Form 477.

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

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Form 477 Filing Summary

FRN: 0002073203 | Data as of: Jun 30, 2020 | Operations: ILEC | Submission Status: Revised - Submitted | Last Updated: Nov 9, 2020 17:28:41

Filer Identification

Section	Question	Response
Filer Information	Company Name	Verizon Virginia LLC
	Holding Company Name	Verizon Communications Inc.
	SAC ID	190233, 190479, 195040
	499 ID	803930, 806307
Data Contact Information	Data Contact Name	Ian Dillner
	Data Contact Phone Number	(202) 515-2458
	Data Contact E-mail	ian.dillner@verizon.com
Emergency Operations Contact Information	Emergency Operations Name	Andis Kalnins
	Emergency Operations Phone Number	(908) 559-1123
	Emergency Operations E-mail	andis.i.kalnins@verizon.com
Certifying Official Contact Information	Certifying Official Name	Radhika Poduri
	Certifying Official Phone Number	(703) 694-4440
	Certifying Official E-mail	radhika.poduri@verizon.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	VA BB Deploy.csv	Nov 9, 2020 16:53:51	119814
Fixed Broadband Subscription	VA BB Sub - Revised.csv	Nov 9, 2020 17:28:39	15998
Fixed Voice Subscription	VA Voice Sub.csv	Nov 9, 2020 16:53:51	2798

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Virginia	Verizon Virginia LLC	Asymmetric xDSL	82088
		Optical Carrier/Fiber to the End User	37726
Total			119814

Fixed Broadband Subscription

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

State	Technology	Census Tracts	Subscriptions		Total
			Consumer	Business / Govt	
Virginia	Asymmetric xDSL	5524	75602	21149	96751
	Optical Carrier/Fiber to the End User	10244	894061	27541	921602
	Other Copper Wireline	213	0	9222	9222
	Symmetric xDSL	17	0	17	17
Total		15998	969663	57929	1027592

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.384	0.384	0	311	311
0.512	0.512	0	856	856
0.768	0.128	373	84	457
0.768	0.768	0	6	6
1.000	0.384	8837	1482	10319
1.500	0.128	42	37	79
1.500	0.384	76	183	259
3.000	0.768	48416	10282	58698
3.000	1.000	594	42	636
4.000	4.000	0	5	5
5.000	0.768	47	2407	2454
5.000	2.000	20	0	20
6.000	6.000	0	4	4
7.000	0.768	13068	5272	18340
10.000	0.768	18	0	18
10.000	1.000	6	4	10
10.000	2.000	1325	9	1334
10.000	10.000	0	366	366
15.000	1.000	4719	1398	6117
15.000	2.000	20	1	21
15.000	5.000	2127	38	2165
15.000	15.000	2407	2	2409
20.000	5.000	1793	21	1814
20.000	10.000	818	12	830

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
20.000	20.000	13	0	13
22.000	22.000	0	10	10
25.000	15.000	287	9	296
25.000	25.000	8277	707	8984
30.000	5.000	1588	69	1657
35.000	35.000	66	46	112
50.000	10.000	4250	146	4396
50.000	20.000	8	23	31
50.000	25.000	62	4	66
50.000	35.000	46	3	49
50.000	50.000	38426	1528	39954
75.000	35.000	91	12	103
75.000	75.000	108744	6309	115053
100.000	100.000	301118	13619	314737
150.000	35.000	0	5	5
150.000	65.000	1	0	1
150.000	150.000	23357	7709	31066
300.000	65.000	17	0	17
300.000	300.000	12581	1800	14381
500.000	500.000	1992	109	2101
940.000	880.000	384033	2999	387032
Total		969663	57929	1027592

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

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Asymmetric xDSL	0.768	0.128	373	84	457
	1.000	0.384	8837	1482	10319
	1.500	0.128	42	37	79
	1.500	0.384	76	183	259
	3.000	0.768	48416	10282	58698
	5.000	0.768	47	2407	2454
	7.000	0.768	13068	5272	18340
	10.000	0.768	18	0	18

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Optical Carrier/Fiber to the End User	10.000	1.000	6	4	10
	15.000	1.000	4719	1398	6117
	3.000	1.000	594	42	636
	5.000	2.000	20	0	20
	10.000	2.000	1325	9	1334
	10.000	10.000	0	85	85
	15.000	2.000	20	1	21
	15.000	5.000	2127	38	2165
	15.000	15.000	2407	2	2409
	20.000	5.000	1793	21	1814
	20.000	10.000	818	12	830
	20.000	20.000	13	0	13
	25.000	15.000	287	9	296
	25.000	25.000	8277	707	8984
	30.000	5.000	1588	69	1657
	35.000	35.000	66	46	112
	50.000	10.000	4250	146	4396
	50.000	20.000	8	23	31
	50.000	25.000	62	4	66
	50.000	35.000	46	3	49
	50.000	50.000	38426	1444	39870
	75.000	35.000	91	12	103
	75.000	75.000	108744	6309	115053
	100.000	100.000	301118	5937	307055
	150.000	35.000	0	5	5
	150.000	65.000	1	0	1
	150.000	150.000	23357	7709	31066
	300.000	65.000	17	0	17
	300.000	300.000	12581	1800	14381
	500.000	500.000	1992	109	2101
	940.000	880.000	384033	2999	387032
Other Copper Wireline	0.384	0.384	0	300	300

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	0.512	0.512	0	856	856
	4.000	4.000	0	5	5
	6.000	6.000	0	4	4
	10.000	10.000	0	281	281
	22.000	22.000	0	10	10
	50.000	50.000	0	84	84
	100.000	100.000	0	7682	7682
Symmetric xDSL	0.384	0.384	0	11	11
	0.768	0.768	0	6	6
Total			969663	57929	1027592

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	685057	250707	445206	438536
Total	685057	250707	445206	438536

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Virginia	79655	17861
Total	79655	17861

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

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Virginia	685057	300640	384417	68869	181838	345618	88732
Total	685057	300640	384417	68869	181838	345618	88732

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

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Virginia	685057	685057	0	0	39132	0	0	645925
Total	685057	685057	0	0	39132	0	0	645925

**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	445206	438536	6670	441835	3371	445206	0	0	0
Total	445206	438536	6670	441835	3371	445206	0	0	0



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Form 477 Filing Summary

FRN: 0002073203 | Data as of: Dec 31, 2020 | Operations: ILEC | Submission Status: Original - Submitted | Last Updated: Mar 1, 2021 17:08:08

Filer Identification

Section	Question	Response
Filer Information	Company Name	Verizon Virginia LLC
	Holding Company Name	Verizon Communications Inc.
	SAC ID	190233, 190479, 195040
	499 ID	803930, 806307
Data Contact Information	Data Contact Name	Ian Dillner
	Data Contact Phone Number	(202) 515-2458
	Data Contact E-mail	ian.dillner@verizon.com
Emergency Operations Contact Information	Emergency Operations Name	Andis Kalnins
	Emergency Operations Phone Number	(908) 559-1123
	Emergency Operations E-mail	andis.i.kalnins@verizon.com
Certifying Official Contact Information	Certifying Official Name	Radhika Poduri
	Certifying Official Phone Number	(703) 694-4440
	Certifying Official E-mail	radhika.poduri@verizon.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	VA BB Deploy.txt	Mar 1, 2021 13:33:17	119916
Fixed Broadband Subscription	VA BB Sub.txt	Mar 1, 2021 17:05:40	15457
Fixed Voice Subscription	VA Voice Sub Upload.txt	Mar 1, 2021 16:06:55	2804

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Virginia	Verizon Virginia LLC	Asymmetric xDSL	82010
		Optical Carrier/Fiber to the End User	37906
Total			119916

Fixed Broadband Subscription

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

State	Technology	Census Tracts	Subscriptions		Total
			Consumer	Business / Govt	
Virginia	Asymmetric xDSL	5160	68408	18970	87378
	Optical Carrier/Fiber to the End User	10065	919932	26271	946203
	Other Copper Wireline	218	0	9545	9545
	Symmetric xDSL	14	0	14	14
Total		15457	988340	54800	1043140

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.384	0.384	0	310	310
0.512	0.512	0	856	856
0.768	0.128	327	66	393
0.768	0.768	0	4	4
1.000	0.384	7868	1329	9197
1.500	0.128	19	31	50
1.500	0.384	47	136	183
3.000	0.768	44577	9240	53817
3.000	1.000	482	27	509
4.000	4.000	0	5	5
5.000	0.768	37	2147	2184
5.000	2.000	18	0	18
6.000	6.000	0	4	4
7.000	0.768	11442	4741	16183
10.000	1.000	13	2	15
10.000	2.000	943	7	950
10.000	10.000	0	364	364
15.000	1.000	4078	1278	5356
15.000	2.000	15	1	16
15.000	5.000	1797	30	1827
15.000	15.000	1774	2	1776
20.000	5.000	1296	15	1311
20.000	10.000	554	7	561
20.000	20.000	9	0	9

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
22.000	22.000	0	10	10
25.000	15.000	201	8	209
25.000	25.000	7141	511	7652
30.000	5.000	1166	58	1224
35.000	35.000	53	42	95
50.000	10.000	3400	125	3525
50.000	20.000	5	10	15
50.000	25.000	48	3	51
50.000	35.000	35	3	38
50.000	50.000	36284	1180	37464
75.000	35.000	65	8	73
75.000	75.000	103940	4674	108614
100.000	100.000	281054	15552	296606
150.000	35.000	0	8	8
150.000	150.000	21817	5891	27708
300.000	65.000	39	0	39
300.000	300.000	13866	3123	16989
500.000	500.000	11160	74	11234
940.000	880.000	432770	2918	435688
Total		988340	54800	1043140

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

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Asymmetric xDSL	0.768	0.128	327	66	393
	1.000	0.384	7868	1329	9197
	1.500	0.128	19	31	50
	1.500	0.384	47	136	183
	3.000	0.768	44577	9240	53817
	5.000	0.768	37	2147	2184
	7.000	0.768	11442	4741	16183
	10.000	1.000	13	2	15
	15.000	1.000	4078	1278	5356
Optical Carrier/Fiber to the End User	3.000	1.000	482	27	509

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	5.000	2.000	18	0	18
	10.000	2.000	943	7	950
	10.000	10.000	0	85	85
	15.000	2.000	15	1	16
	15.000	5.000	1797	30	1827
	15.000	15.000	1774	2	1776
	20.000	5.000	1296	15	1311
	20.000	10.000	554	7	561
	20.000	20.000	9	0	9
	25.000	15.000	201	8	209
	25.000	25.000	7141	511	7652
	30.000	5.000	1166	58	1224
	35.000	35.000	53	42	95
	50.000	10.000	3400	125	3525
	50.000	20.000	5	10	15
	50.000	25.000	48	3	51
	50.000	35.000	35	3	38
	50.000	50.000	36284	1096	37380
	75.000	35.000	65	8	73
	75.000	75.000	103940	4674	108614
	100.000	100.000	281054	7545	288599
	150.000	35.000	0	8	8
	150.000	150.000	21817	5891	27708
	300.000	65.000	39	0	39
	300.000	300.000	13866	3123	16989
	500.000	500.000	11160	74	11234
	940.000	880.000	432770	2918	435688
Other Copper Wireline	0.384	0.384	0	300	300
	0.512	0.512	0	856	856
	4.000	4.000	0	5	5
	6.000	6.000	0	4	4
	10.000	10.000	0	279	279

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	22.000	22.000	0	10	10
	50.000	50.000	0	84	84
	100.000	100.000	0	8007	8007
Symmetric xDSL	0.384	0.384	0	10	10
	0.768	0.768	0	4	4
Total			988340	54800	1043140

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	644678	230657	420435	412553
Total	644678	230657	420435	412553

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Virginia	76746	16524
Total	76746	16524

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

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Virginia	644678	280715	363963	61385	169272	331109	82912
Total	644678	280715	363963	61385	169272	331109	82912

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

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Virginia	644678	644678	0	0	36826	0	0	607852
Total	644678	644678	0	0	36826	0	0	607852

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	420435	412553	7882	417027	3408	420435	0	0	0
Total	420435	412553	7882	417027	3408	420435	0	0	0

Form 477 Filing Summary

FRN:
0002073203

Data as of:
Dec 31, 2021

Operations:
ILEC

Submission Status:
Original - Submitted

Last Updated:
Feb 24, 2022 12:39
PM

Filer Identification

Section	Field	Response
Filer Information	Company Name	Verizon Virginia LLC
	Holding Company Name	Verizon Communications Inc.
	Filing Type	ILEC
	SAC ID	190233,190479,195040
	499 ID	803930,806307
Data Contact Information	Data Contact Name	Ian Dillner
	Data Contact Phone Number	(202) 515-2458
	Data Contact E-mail	ian.dillner@verizon.com
Emergency Operations Contact Information	Emergency Operations Name	Andia Kalnina
	Emergency Operations Phone Number	(908) 559-1123
	Emergency Operations E-mail	andia.kalnina@verizon.com
Certifying Official Contact Information	Certifying Official Name	Kathleen J Makas
	Certifying Official Phone Number	(908) 559-2855
	Certifying Official E-mail	kathleen.makas@verizon.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	VABB Deploy.txt	Feb 23, 2022 05:14 PM	94,149
Fixed Broadband Subscription	VABB Sub.txt	Feb 23, 2022 05:23 PM	11,931
Fixed Voice Subscription	VAVoice Sub Upload.txt	Feb 23, 2022 05:00 PM	2,427

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
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State	DBA Name	Technology	Blocks
Virginia	Verizon Virginia LLC	Asymmetric xDSL	61,142
		Optical Carrier/Fiber to the End User	33,007
Total			94,149

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End User Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business/Govt.	Total
Virginia	Asymmetric xDSL	3,873	54,362	16,339	70,701
	Optical Carrier/Fiber to the End User	7,824	955,637	27,176	982,813
	Other Copper Wireline	228	0	9,723	9,723
	Symmetric xDSL	6	0	7	7
Total		11,931	1,009,999	53,245	1,063,244

Fixed Broadband Subscriptions by Bandwidths and End User Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
0.384	0.384	0	303	303
0.512	0.512	0	853	853
0.768	0.128	240	71	311
0.768	0.768	0	3	3
1.000	0.384	5,980	1,222	7,202
1.500	0.128	15	35	50
1.500	0.384	29	141	170
3.000	0.768	36,063	7,898	43,961
3.000	1.000	661	17	678
4.000	4.000	0	5	5
5.000	0.768	33	1,757	1,790
5.000	2.000	24	0	24
6.000	6.000	0	4	4
7.000	0.768	8,621	4,082	12,703
10.000	1.000	12	3	15
10.000	2.000	935	1	936

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
10,000	10,000	0	378	378
15,000	1,000	3,369	1,130	4,499
15,000	2,000	28	0	28
15,000	5,000	1,578	22	1,600
15,000	15,000	1,909	3	1,912
20,000	5,000	1,107	2	1,109
20,000	10,000	465	6	471
20,000	20,000	6	0	6
22,000	22,000	0	10	10
25,000	15,000	250	5	255
25,000	25,000	5,888	315	6,203
30,000	5,000	1,163	30	1,193
35,000	35,000	54	23	77
50,000	10,000	3,040	132	3,172
50,000	20,000	11	11	22
50,000	25,000	51	2	53
50,000	35,000	8	9	17
50,000	50,000	27,365	813	28,178
75,000	35,000	61	3	64
75,000	75,000	94,550	2,742	97,292
100,000	100,000	238,277	18,679	256,956
150,000	35,000	0	19	19
150,000	150,000	16,437	3,940	20,377
300,000	65,000	76	0	76
300,000	300,000	9,730	5,717	15,447
500,000	500,000	245	39	284
940,000	880,000	551,718	2,820	554,538
Total		1,009,999	53,245	1,063,244

Fixed Broadband Subscriptions by Technology, Bandwidths and End User Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
Asymmetric xDSL	0.768	0.128	240	71	311

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
	1,000	0.384	5,980	1,222	7,202
	1,500	0.128	15	35	50
	1,500	0.384	29	141	170
	3,000	0.768	36,063	7,898	43,961
	5,000	0.768	33	1,757	1,790
	7,000	0.768	8,621	4,082	12,703
	10,000	1,000	12	3	15
	15,000	1,000	3,369	1,130	4,499
Optical Carrier/Fiber to the End User	3,000	1,000	661	17	678
	5,000	2,000	24	0	24
	10,000	2,000	935	1	936
	10,000	10,000	0	91	91
	15,000	2,000	28	0	28
	15,000	5,000	1,578	22	1,600
	15,000	15,000	1,909	3	1,912
	20,000	5,000	1,107	2	1,109
	20,000	10,000	465	6	471
	20,000	20,000	6	0	6
	25,000	15,000	250	5	255
	25,000	25,000	5,888	315	6,203
	30,000	5,000	1,163	30	1,193
	35,000	35,000	54	23	77
	50,000	10,000	3,040	132	3,172
	50,000	20,000	11	11	22
	50,000	25,000	51	2	53
	50,000	35,000	8	9	17
	50,000	50,000	27,365	729	28,094
	75,000	35,000	61	3	64
	75,000	75,000	94,550	2,742	97,292
	100,000	100,000	238,277	10,498	248,775
	150,000	35,000	0	19	19
	150,000	150,000	16,437	3,940	20,377

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business/Govt.	Total
	300,000	65,000	76	0	76
	300,000	300,000	9,730	5,717	15,447
	500,000	500,000	245	39	284
	940,000	880,000	551,718	2,820	554,538
Other Copper Wireline	0.384	0.384	0	299	299
	0.512	0.512	0	853	853
	4,000	4,000	0	5	5
	6,000	6,000	0	4	4
	10,000	10,000	0	287	287
	22,000	22,000	0	10	10
	50,000	50,000	0	84	84
	100,000	100,000	0	8,181	8,181
Symmetric xDSL	0.384	0.384	0	4	4
	0.768	0.768	0	3	3
Total			1,009,999	53,245	1,063,244

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	578,415	198,205	376,891	365,788
Total	578,415	198,205	376,891	365,788

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Virginia	66,035	10,622
Total	66,035	10,622

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

State	Total	by Bundle		by Product Type	
		Sold w/ Internet	Sold w/o Internet	Consumer	Business/Govt.

State	Total	by Bundle		& No PIC		& PIC	
		Sold w/ Internet	Sold w/o Internet	Consumer		Business/Govt.	
				& No PIC	& PIC	& No PIC	& PIC
Virginia	578,415	243,886	334,529	51,817	146,388	306,673	73,537
Total	578,415	243,886	334,529	51,817	146,388	306,673	73,537

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

State	Total	by Ownership			by Last-Mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Virginia	578,415	578,415	0	0	33,040	0	0	545,375
Total	578,415	578,415	0	0	33,040	0	0	545,375

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/Govt.	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	376,891	365,788	11,103	373,260	3,631	376,891	0	0	0
Total	376,891	365,788	11,103	373,260	3,631	376,891	0	0	0

Reminder:

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

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

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The proposed Verizon Project area encircles the city limits of Emporia, Virginia.

Beginning on the north side from the city limits along Sussex Drive to the Sussex County corporate line including the following roads and/or road sections:

Country Club Road (to Sussex County)
Julians Lane
Blanks Lane
Boxer Drive
Industrial Park Way
Three Creek Drive
Garland P. Faison Court
Daniel A. Belmonte Drive
Greensville County Circle
Uriah Branch Way
Otterdamn Road (to 2498 Otterdamn Road)
Water Wheel Road
Moonlight Road
Crescent Road
Reigel Road
Saunders Road
Castle Lane
Thomas Drive
Slagles Lake Road (to intersection of Water Wheel Road)
Robinson Lane
Belfield Road
Linda Lane

Beginning on the east side from the city limits along Courtland Road to the Southampton County corporate line including the following roads and/or road sections:

James River Junction
Brick Yard Road (to James River Junction intersection)
Horton Road
Sunnyside Lane
Metcalf Lane
Airport Drive

Beginning on the southeast side from the Emporia city limits along Low Ground Road to 2575 Low Ground Road including the following roads and/or road sections:

Batts Drive
S&J Drive
Spring Hill Drive
Shearin Street
Shepard Street

Chambliss Road
Little Low Ground Road (to 1365 Little Low Ground Road)
Johnson Road
Peach Road

Beginning on the south side from the Emporia city limits along Skippers Road to Bass Road intersection including the following roads and/or road sections:

Old Halifax Road
Morgan Road
Johnson Road
Liberty Road
Little Mill Trail
Cedar Lane
Trillium Way
Bass Road
Rock Bridge Road (to Collins Road intersection)
Ivory Lane (to the Greenville County Solar Farm)

Beginning on the southwest side from the Emporia city limits along Brink Road to Collins Road intersection including the following roads and/or road sections:

Ashbin Road
St. John Street
Vincent Drive
Salem Drive
Collins Road

Beginning on the west side from the Emporia city limits along Dry Bread Road to 4282 Dry Bread Road including the following roads and/or road sections:

Mill Road
Inge Avenue
Fairground Road
Easter Street
Calloway Street
Louis Street
Ellington Street
Carver Street
Anderson Street
East Anderson Street
Wyatt Street
Harwood Street
Moton Street
Sales Exchange Lane
East Drive

Abraham Avenue
Lincoln Circle
West Drive
Bob White Court
Camp Ground Road
Allen Town Road

Beginning on the northwest side from the Emporia city limits along Pleasant Shade Drive to the Carter Road intersection including the following roads and/or road sections:

Pleasant Shade Drive (city limits to 1200' shy of Macklins Creek Road)
Carter Road
Jacks Way
Jennifer Drive
Scottsdale Drive
Tracey Court
Weatherspoon Drive
Sadler Drive
Bel Meadow Drive
Watkins Drive
Satterfield Drive (to city limits)
Poplar Lane
Westover Drive
Ruritan Drive
Van Dyke Circle
Van Dyke Trail
Fayes Circle
Green Avenue
Everetts Lake Road
Purdy Road (from city limits to 2926 Purdy Road)
Poultry Drive
Brunswick Road (to 1291 Brunswick Road)
Cifers lane
Wilson Court
Shore Drive
Allen Court
Walnut Circle
Quail Court
Walker Mill Trail
Walnut Drive (to city limits)
Riverview Road

NETWORK DESIGN

Verizon currently provides copper-based services in the project area from its central office in Emporia, which houses Verizon's equipment and is connected back across Verizon's network to the global Internet. The project would add network components including equipment in the Emporia central office used to provide fiber-based Internet services as well as fiber-optic cables extending from the central office past each of the proposed 1,347 unserved locations. Verizon also would provide fiber drops and customer-premise equipment required to deliver service in response to an order from a customer. Verizon would provide the fiber drops and equipment at its cost, so they are not included in the project or the application.

The proposed network begins with the optical line terminal (OLT) in a local Verizon central office. Fiber optic cables will run along main feeder routes from the OLT toward the unserved locations. The fiber optic cables may be placed in underground conduit or attached to utility poles. Verizon's construction methods--aerial or underground--will vary by area and may depend on the availability of existing pole and conduit infrastructure and local requirements. The detailed budget provided by Verizon includes specific assumptions for the mix of aerial and underground placement methods for the proposed network. For underground spans of fiber, Verizon may place vaults, handholes, or ground-mounted cabinets to access the fiber at various points. For aerial routes, Verizon may place ground- or pole-mounted cabinets. Along and at the end of each feeder route, Verizon will place a passive optical splitter to connect each feeder fiber to up to 32 distribution fibers. There may be one or two splitters between the OLT and the customer. Distribution fiber cables terminate at fiber terminals placed in the public right of way on poles, cabinets, vaults, or handholes.

Once the build is completed, when a customer orders service, a fiber drop is run from the nearest terminal in the public right of way to the customer's location. An Optical Network Terminal (ONT) is placed at the exterior or interior of the customer location, depending on the precise design. The ONT terminates the optical signal from the OLT in the central office. The ONT enables connections using Category 5 or 6 inside wire to a broadband home router for Internet service. The router supports physical connections to devices in the home. Verizon Fios customers can rent or purchase a broadband router from Verizon, or provide their own. Routers obtained from Verizon, and most commercially available broadband routers, contain a Wi-Fi access point. The ONT also enables connections using RJ-11 cabling (for legacy voice services) and coaxial cable (for connection to existing cable inside wiring, if available).

For locations with long driveways or setbacks, or that are otherwise not able to be served directly from the public right of way, Verizon will follow its standard practice, as set forth in its Product Guide online. Typically, this results in no construction charges for residential Fios Home Internet customers for extension of drops to long setback structures. For new residential subdivisions, multi-tenant dwelling units, commercial development, and mixed-used business and residential development within or outside of the project area, Verizon will follow its standard practices for delivery of service and network extensions, including recovery of costs, as set forth in its standard Product Guide.

The network improvements just described would be used to deploy fiber to the premises (FTTP), which provides a 100% fiber optic connection from each customer's location back across Verizon's network to the public Internet. FTTP is considered the best, future-proof,

broadband technology because it enables capacity to be added simply by updating the electronic equipment attached to each end of the fiber.

FTTP uses passive optical networking (PON) technology to provide the optical (laser) signal. The word “passive” in the name denotes the fact that none of the equipment in the outside plant is powered. This results in a more reliable network that is not dependent on commercial power at intermediate points in its design. The current generation of PON technology Verizon uses supports speeds up to 940 Mbps downstream and 880 Mbps upstream, far above the requirements of the VATI program. Verizon’s FTTP network architecture will facilitate deployment of the next generation of PON technology, which will be capable of generating speeds ten times as fast.

The FTTP network is highly reliable, in part because it incorporates redundancy and network control into its design and minimizes the risk of outages due to power failures. From the central office, broadband traffic is routed to the Internet over a redundant network that Verizon controls. Network diversity helps mitigate the risk of an outage due to fiber cuts, weather, or other events. Verizon’s end-to-end control of all network segments from the customer’s location to the Internet provides single-point accountability for service delivery and assurance, and simplifies and streamlines network management, trouble-shooting, and repair. Moreover, central offices are equipped with backup battery power and generators to help ensure the office equipment keeps running in a commercial power outage. And because there is no powered equipment in the outside plant, those facilities are not affected by power outages, removing a potential point of failure. Verizon enables customers to have broadband service during commercial power outages by offering to sell them to buy standard battery back-up equipment for their router and other broadband equipment.

Verizon manages the shared capacity provided by the network to address peaks in utilization. Verizon employs the same network management practices used to monitor, maintain, upgrade, and enhance that network that it has used for more than 15 years for its Fios network in Virginia and several other states. These processes involve automated internal reporting on capacity utilization on individual circuits in our transport and backbone networks, with internal processes that are triggered to augment capacity when circuits reach pre-defined capacity utilization thresholds.

Verizon maintains an internal speed testing platform that tests broadband speeds on tens of thousands of Fios circuits monthly to confirm that customers are receiving the provisioned speeds. Verizon intends to utilize speed and performance testing arrangements implemented in compliance with the FCC’s requirements for the Connect America Fund grant program. These are the same requirements that the Commerce Department adopted for the BEAD program, and are substantially consistent with the methodology utilized by the FCC’s Measuring Broadband America program, which Verizon has participated in since its inception over ten years ago. These requirements generate speed test results that can be used to satisfy all existing FCC broadband regulations.

Verizon’s broadband Internet access service provided over the FTTP network is called Fios. Fios has been recognized for excellence, and in J.D. Power’s 2021 U.S. Residential Internet Service Provider Satisfaction Study, Verizon’s Fios service ranked highest in the region. The expanded Fios broadband service in the County will provide reliable high-speed broadband internet access to homes, schools, libraries, and businesses, with pricing options to fit every budget and no data caps. Speed options for Fios customers in the County will range from 300 Mbps/300 Mbps up to 940 Mbps/880 Mbps.

