

Appomattox County
Shentel Broadband Expansion to Vera (#3387)
\$45,000 Requested

Executive Summary Provided by Applicant: Shentel is requesting funding to provide last mile connectivity to approximately 110 residences in the Vera community of Appomattox County. This project will entail over 16,000 feet of new last mile connections from an existing Shentel fiber line to each of the residences in the project area. Currently, this project is being submitted as a residential build, but it will also be able to connect any businesses, or other structures (backhaul for cell towers) that may be constructed in the area.

Staff Comments: Appomattox County's co-applicant on this project to serve the Vera community is Shenandoah Cable Television LLC (dba Shentel), a Virginia-based company that provides telecom services in parts of six central Appalachian states. Vera is located on Route 24 northeast of Appomattox Court House. The project will provide access to fiber by extending two miles of Shentel fiber and overlashing one mile to reach Vera. The applicants estimate a 30% take rate for the community's 100+ households, resulting in 30 anticipated subscribers at a per-subscriber cost to TRRC of \$1,500. Shentel proposes to approximately equally share with TRRC the costs for fiber materials and installation, while covering all costs for engineering, permitting, customer premise equipment and installation from its own funds (\$50k for CP labor, plus additional unspecified costs). Shentel's standard monthly pricing for Internet service begins at \$50 for 5 Mbps, \$60 for 10 Mbps and ranges up to \$200/month for 100+ Mbps.

Appomattox County
Central Virginia Electric Cooperative Members' Fiber Broadband Project
(#3389)
\$979,850 Requested

Executive Summary Provided by Applicant: The project will extend fiber optic cable past 1,656 business and residential accounts of rural Appomattox County residents. The future-proof infrastructure will provide world class, true high speed broadband internet access at very competitive rates. The project is one phase of a much larger project which will leverage a high speed fiber optic communication system that will be installed across the entire Central Virginia Electric Cooperative regional grid. The fiber optic system will provide communications literally traveling at the speed of light to improve reliability and reduce costs on the electric system for CVEC and its members. The Cooperative is then using this network to help its members overcome the digital divide by providing service at gigabit speeds and without data caps. The project will improve access for education, healthcare, and business needs. It will improve the quality of life in rural central Virginia.

Staff Comments: Appomattox County's co-applicant is Nelson County-based Central Virginia Electric Cooperative, a non-profit electric cooperative which has a long-term plan to provide broadband in 14 counties, including parts of five tobacco region counties. The proposal does not state how CVEC was selected as the co-applicant. CVEC proposes service of 100mbps upload and download speeds at costs starting at \$50 per month (\$80/month for gigabit service). This project, which would be matched with debt incurred by CVEC from federal and private sources to connect its substations with fiber that will serve as backhaul for the last mile as well as for monitoring and security of electrical operations. The Appomattox project intends to pass 200+ business (10% take rate) and 1,450 residences (35% take rate) primarily in central Appomattox. An estimated 529

businesses and residences are projected to subscribe, at a cost per connection to the Commission of just over \$1,850 per subscriber. Future requests could include Buckingham, Cumberland, Prince Edward and parts of Campbell Counties, ultimately passing 9,200 tobacco region premises in the next 5-6 years.

County of Bedford
Chapel Woods Drive (#3386)
\$50,000 Requested

Executive Summary Provided by Applicant: Shentel will extend broadband to 40 homes. In addition, Shentel will offer video, and voice service. Shentel will be able to offer broadband speeds that exceed 100 Mbps to residential customers. Shentel will be able to provide Gigabit speeds to businesses.

Staff Comments: Bedford County's co-applicant on this project to serve 40 residences within and along the proposed route to the Chapel Woods Drive project area is Shenandoah Cable Television LLC (dba Shentel), a Virginia-based company that provides telecom services in parts of six central Appalachian states. The project will provide access to fiber by extending 1.5 miles of Shentel fiber, overlashing one mile and trenching a half-mile to reach Chapel Woods, which is five miles southwest of the National D-Day Memorial and the US Route 460 Bedford bypass. The applicants did not estimate a take rate for the project area's 40 households. Based on information in the application, it appears a 50% take rate is estimated, which would result in per-subscriber cost to TRRC of \$2,500 to serve 19-20 households. Shentel proposes to approximately equally share with TRRC the costs for fiber materials and installation, while covering all costs for engineering, permitting, customer premise equipment and installation from its own funds (\$25k for CP labor, plus additional unspecified costs). Shentel's standard monthly pricing for Internet service begins at \$50 for 5 Mbps, \$60 for 10 Mbps and ranges up to \$200/month for 100+ Mbps.

Bedford, County of
Comcast Broadband Project in Southern Bedford County (#3392)
\$4,000,000 Requested

Executive Summary Provided by Applicant: Bedford County and Comcast, as co-applicants to the “Last Mile Broadband Program” through the Commission (“TRRC”), propose to upgrade and extend Comcast’s network to provide access to broadband to Bedford County residents and businesses. The Project Area will traverse southern Bedford County from the county’s western border with Roanoke County to the eastern end of Smith Mountain Lake. The Project Area was selected as a result of discussions between Bedford County and Comcast concerning the significant need for high speed broadband in this area of the County as evidenced by the survey the County conducted of residents and businesses in the area. While Comcast expressed to the County a willingness to provide broadband service to the area if economically feasible, a review of the costs to provide service exceeded the amount Comcast could invest in the area. Given the opportunity to obtain funding from the TRRC, the County and Comcast agreed to partner and submit an application for funding. Its hybrid fiber coaxial (“HFC”) network will deliver speeds up to 1 Gbps to residential customers. The broadband infrastructure Comcast would put in place through a Last Mile Broadband grant would offer all customers seven residential and nine business broadband options that exceed the minimum speed requirements set by TRRC.

Staff Comments: The co-applicant, Comcast, has requested that all aspects of the scope and budget for the project, including subscriber outcomes, be kept confidential. The Committee may wish to go into Executive session to receive legal advice from its Counsel on this request, and to discuss specifics of this proposal.

Carroll, Grayson, Galax Regional Industrial Facility
The Wired Road Connector Project (#3377)
\$300,000 Requested

Executive Summary Provided by Applicant: This phase of the regional project will consist of 4.25 miles of new fiber connecting the existing Galax fiber infrastructure with the existing Carroll county fiber infrastructure. This gap in the fiber backbone is the primary piece of the regional network. A key component of the regional economic revitalization plan is the development of a regional telecommunications network, The Wired Road. With most of the phases of The Wired Road in place, this connector project will extend the network to areas that are currently unserved, including exit 14 of I-77 South and the Carroll County Industrial Park, making this project a strategic priority for the region and specifically Carroll county. This project, specifically, is a priority for the Twin County region because it is needed to complete the fiber backbone for the entire regional network, filling the gap between Galax and Carroll county

Staff Comments: This project would build a 4 mile connector between existing fiber in Galax and Carroll County, primarily serving businesses in and near the I-77 Exit 14 commercial area and the neighboring Carroll County Industrial Park. The Wired Road, a project of the RIFA, previously received one TRRC broadband grant for \$919k in 2009 to build a portion of The Wired Road network. This build is expected to pass 153 businesses (40% take rate) and 103 residences (30% take rate), resulting in 60+ businesses and 30+ residences taking service of at least 10/1 Mbps upload/download that starts at \$19 per month for 10/1, \$92/month for 25/25, with higher monthly costs for larger bandwidth. Matching funds will be provided from an approved ARC grant of \$300k that will approximately equally cost-share all costs of construction labor and materials and customer premise equipment and installation. This results in an estimated construction and connection cost to TRRC of \$3,600 per subscriber.

Citizens Telephone Cooperative
Copper Hill Project (#3382)
\$467,160 Requested

Executive Summary Provided by Applicant: The proposed project is to expand Citizens' FTTH (fiber to the home) service area into the Copper Hill area of Floyd County near the county line with both Franklin and Roanoke counties. This expansion will make broadband services available to residents that are currently unserved & underserved with speeds up to 1 Gigabit (1Gbps or 1,000Mbps). We estimate 391 homes will be passed with this 19.9 mile build. A secondary project that would be built the first year, is building fiber to a business, Riverbend Nursery in the Alum Ridge area of Floyd County. Their broadband needs continue to grow and we cannot continue to fulfill that need using existing copper facilities. The business is one of the largest employers in the county with 100+ employees during peak season. Our current timeline to build fiber in that area under the A-CAM model is 2020/21.

Staff Comments: Floyd-based Citizens Telephone is a non-profit telephone cooperative that serves as the lead applicant on this project to expand its gigabit fiber to the home (FTTH) service nearly 20 miles to a project area in northern Floyd County. Citizens has received three previous TRRC grants totaling just under \$6 million since 2005 to expand broadband service in its multi-county service area. Monthly service starts at \$60 for 100 Mbps upload and 50 Mbps download, while 1 Gbps service begins at \$80/month, with higher tiered monthly pricing for large data users. The project would pass 390+ homes, at an expected take rate of 40%, resulting in an estimated 157 subscribers at a cost to the Commission of \$2,975 per subscriber. This project would also extend fiber at a cost of approximately \$42k to a wholesale nursery operation that employs over 100 workers during peak growing seasons. Citizens proposes to equally cost-share all engineering and construction expenses with TRRC, thereby assuring the matching fund requirement would be met.

Dinwiddie County

Regional Broadband Initiative: Dinwiddie and Amelia Counties (#3384) **\$1,708,090 Requested**

Executive Summary Provided by Applicant: Dinwiddie and Amelia Counties are historically agrarian communities with limited broadband access. Through this project, the two counties will work with StraightUpNet to establish a wireless broadband solution that will provide reliable and affordable internet access to more than 90% of their geographic area. This will be accomplished by leveraging existing vertical assets and constructing additional towers where needed in order to broadcast service to the masses, including unserved areas of neighboring localities in close proximity to our borders. Citizens in both counties will have an opportunity to subscribe to affordable service in areas that are currently unserved or underserved. Customers of StraightUpNet will enjoy minimum download speeds of 10 Mbps. Access to reliable and affordable internet will significantly benefit students, the local workforce, and business and industry – regardless of size. This project will successfully meet the need for this critical service in our communities and the region.

Staff Comments: The Counties' co-applicant is Amelia-based StraightUpNet LLC, which was selected in an RFP process and has already begun offering LTE wireless broadband in a limited portion of Amelia. The project would reportedly serve 90% of the two counties with LTE service from 14 existing and proposed vertical assets (towers etc), in addition to serving portions of neighboring counties. The application estimates an 83% take rate from the more than 15,000 potential subscribers, resulting in 12,570 subscribers (10,900 residences and 1,677 businesses, 97% of which would have service from 10/1 to 25/3 Mbps). Subscribers are roughly divided between 65% in Dinwiddie and 35% in Amelia. Matching funds would be provided entirely by the two counties (Dinwiddie \$1M+ and Amelia \$683k) from a combination of County General Funds and debt financing. TRRC funds are requested for an equal cost-share with the Counties for materials for new towers and micro-POPs, labor and electronics. The co-applicant is not listed as providing project funds, although the project budget does not clearly account for engineering, permits and customer premise equipment and installation. Monthly subscriber charges begin at \$50 for 4/3 Mbps, \$70 for 8-10/6 Mbps and \$100 for 10-15/8 Mbps. StraightUpNet's business connections start at \$139 per month, and all residential and business users are required to enter into a two-year contract. If the 83% take rate is accepted as a realistic subscription percentage, the one-time construction cost to TRRC is \$135 per subscriber.

Halifax County
Halifax County Broadband Initiative (#3385)
\$206,202 Requested

Executive Summary Provided by Applicant: The Halifax County Broadband Initiative is a multi-jurisdictional effort with Pittsylvania County and the Town of Brookneal, with our private partner SCS Broadband, providing adequate and affordable internet to rural residents of our region. In general, service will be provided to unserved or underserved residents in rural areas of Halifax, southern Campbell and eastern Pittsylvania Counties. However, with our partner Pittsylvania County all of Halifax and Pittsylvania Counties will be served, as well as adjacent areas of surrounding counties.

In the course of just over a year, rural residents of Halifax County will be able to move fully into the cyber economy of the 21st century. Through the installation of wireless internet, areas that previously could not be served cost effectively will have affordable service. Unlike high-cost fiber or corporate IT companies focused on short-term profit only, regional wireless internet run by a Virginia company will bridge the digital divide.

Staff Comments: Halifax County's co-applicant on this project is SCS Broadband (dba AcelaNet), a Nelson-County based company that currently offers wireless LTE and WIFI broadband service from vertical assets such as towers in several Central Virginia counties including Pittsylvania and the Montvale area of Bedford. SCS was selected by Halifax during an RFP process that was conducted in early-2017. This request would provide service in the first two phases of a four-phase plan to serve northern and central Halifax County residents and businesses. The total cost of phases 1 and 2 is \$663k, with the County providing \$50k and SCS providing \$407k for costs to purchase, lease or build towers and community data poles, as well as all costs for customer premise equipment and installation. The application estimates that in the first two phases 2,805 residences and 172 businesses will have access to wireless broadband, with estimated take rates of 25% that will result in an anticipated 744 subscribers. TRRC funds are requested for 50% of the costs of towers and poles, resulting in a cost per subscriber to the Commission of \$277. Monthly residential subscriber fees begin at \$35-40 for 10-15 Mbps download (uploads vary), and range up to \$115-120/month for 50 Mbps. Business subscribers will pay \$150/month for 10-15 Mbps service, ranging up to \$300/month for 20-25 Mbps.

Lunenburg County
Lunenburg County - Last Mile Broadband (#3388)
\$323,300 Requested

Executive Summary Provided by Applicant: This project would provide 10/1 speeds to about 185 locations that either do not have broadband or have service at speeds below 10/1. About 62% of the total will actually have speeds of about 25/2 and some number of the customer will have much faster speeds. The broadband service would be DSL based using primarily VDSL2 technology. The project involves installing fiber lines and new electronics to enable the faster speeds. As required, the funding would be used as a one-time financial assistance to supplement construction costs. CenturyLink estimates, under the "Infrastructure Subscribers Worksheet", the number of subscribers is based on their very conservative "take rate" of 40%. We anticipate a higher take rate due to the limited speeds currently available and the many consumers with zero access. Please consider this in your analysis of the application. The rates offered are affordable and will attract customers.

Staff Comments: Lunenburg County's co-applicant on this project is Central Telephone Company of Virginia, Inc (dba CenturyLink), which states that it serves 5.9 million customers in 37 states. The application states that CenturyLink approached the County with a plan to serve areas of eastern Lunenburg where its service has been requested by prospective customers. The project area contains 650+ households, and a 40% take rate is estimated, resulting in 260 households subscribing for DSL service that is \$45 per month for speeds up to 25 Mbps. The co-applicant cautions that an estimated 75 of the 260 subscribers will not be able to reach 10/1 Mbps speeds due to the DSL system design and customer's distances from the provider's facilities. Business rates begin at \$70 per month. The resulting cost to the Commission per subscriber is \$1,243. The budget appears to equally cost-share with TRRC the installation of four VDSL2 devices in Kenbridge (3) and South Hill (1) and installation of 98,000 feet (18+ miles) of fiber.

Mecklenburg County EMPower Project (#3378) \$2,611,391 Requested

Executive Summary Provided by Applicant: The proposed project will provide ultrahigh-speed broadband services to currently unserved Southside Virginia households and businesses. These broadband services will create the potential for increased educational opportunities, business growth, public services, public safety, and quality of life improvement for the residents in the proposed service area. The project includes the construction of a Fiber-to-the-Home (FTTH) outside plant and electronics network infrastructure. The FTTH network architecture would provide those served by the project access to broadband data services, voice, and multimedia over a unified access network. The scope of this application includes the fiber build of 135 miles of mainline fiber cable, new substation FTTH electronics, optical network terminals at the customer locations and fiber mainframe equipment for fiber management. The project area will provide access to 2,909 accounts spanning six counties. The total cost for these items, along with the associated labor, installation costs, and engineering, is estimated at \$5,222,781.

Staff Comments: Mecklenburg County's co-applicant on this project is the non-profit Mecklenburg Electric Cooperative, which like two other current requests involving electric cooperatives, is proposing to build a gigabit fiber network to connect its electrical substations for smart grid monitoring and security. That new backbone build, which will serve as the required matching funds financed through federal sources, will also utilize some sections of existing Mid-Atlantic Broadband fiber, crossing portions of six tobacco region counties. The first section of the project would begin with the new construction and deployment of 47 miles of optical fiber backbone, primarily connecting MEC's office in Gretna, to its office in Chase City and connecting seven of its electric substations along the way. That initial build will pass MEC members in portions of Pittsylvania, Halifax, Charlotte and Mecklenburg counties. Subsequently, the cooperative would connect Chase City to Ebony, in Brunswick County, and then connect Ebony to the Emporia office, crossing portions of Brunswick and Greensville Counties. Collectively, the EMPower Project will pass within 1,000 feet of 2,909 homes and businesses with a total of 135 miles of fiber backbone. TRRC funds are requested to deploy 172 miles of last mile fiber to those premises for equipment, materials and labor, as well as customer premise equipment and installation. MEC estimates a 45% take rate for the 4,584 residential customers, resulting in 1,173 residential subscribers. It also estimates a 39% take rate for the 325 business premises passed, resulting in 128 subscribers. All 1,300+ subscribers are expected to take service of at least 25/3 Mbps. Based on those projections, the cost to the Commission on a per subscriber basis is \$2,007. MEC, while not yet a provider of broadband, attached a business plan that indicated proposed monthly service costs starting at \$56-66 for

residential subscribers and \$75 for small businesses. The business plan also cites an array of additional services MEC could offer, including VOIP phone, television, etc.

Pittsylvania County
Pittsylvania County Broadband Initiative (#3391)
\$491,000 Requested

Executive Summary Provided by Applicant: The Pittsylvania County RFP #2016-0715-01, Wireless Internet Service Providers, was awarded to SCS Broadband in 2017. This provided a partnership where as SCS broadband would have low cost leases to seven County towers, along with assistance on other vertical assets such as water towers. This public/private Broadband Initiative is a multi-jurisdictional effort with Pittsylvania County and adjoining Counties SCS Broadband is, or will be, deploying wireless broadband. In general, service will be provided to unserved or underserved residents in rural areas of Pittsylvania, Western Halifax and southern Campbell Counties. However, with our partner Halifax County all of Pittsylvania and Halifax Counties will be served, as well as adjacent areas of surrounding counties. SCS Broadband has already started deploying rural residents of Pittsylvania County with remarkable success, allowing citizens to move fully into the cyber economy of the 21st century.

Staff Comments: Pittsylvania County's co-applicant on this project is SCS Broadband (dba AcelaNet), a Nelson-County based company that currently offers wireless LTE and WIFI broadband service from vertical assets such as towers in several Central Virginia counties including service currently offered in Pittsylvania and the Montvale area of Bedford. SCS was selected by Pittsylvania during an RFP process that was conducted in late-2016. This request would provide service in a four-phase plan to provide wireless broadband from ten towers to serve County residents and businesses. It is unclear if the budgets and outcomes of these phases include or expand beyond the current service being offered in Pittsylvania from seven towers, although it appears those seven in northern Pittsylvania are separate from the 9-10 towers shown on maps covering the central and southern portions of the County. The total cost of phases 1 through 4 is \$982k, with SCS providing 50% for costs to purchase, lease or build towers and community data poles, as well as all costs for customer premise equipment and installation. The application estimates that in the four phases 6,067 residences and 295 businesses will have access to wireless broadband, with estimated take rates of 25% that will result in an anticipated 1,591 subscribers (1,517 residential and 74 businesses). TRRC funds are requested for 50% of the costs of towers and poles, resulting in a cost per subscriber to the Commission of \$309. Monthly residential subscriber fees begin at \$35-40 for 10-15 Mbps download (uploads vary), and range up to \$115-120/month for 50 Mbps. Business subscribers will pay \$150/month for 10-15 Mbps service, ranging up to \$300/month for 20-25 Mbps.

The Industrial Development Authority of Russell County VA
South Buchanan/North Central Russell Counties Broadband Expansion
Project (#3390)
\$3,000,000 Requested

Executive Summary Provided by Applicant: The South Buchanan/North Central Russell Counties Broadband Expansion Project proposes to bring broadband services to homes and

businesses, which will in turn increase opportunities for employment, education, and services along these rural communities located in Buchanan and Russell Counties, Virginia. The project calls for a fiber-optic buildout of 82.56 total miles from end-to-end. This project would bring fiber close to 1426 structures which are comprised of households, businesses and community facilities. This project area is one of the most unserved areas in Southwest Virginia. An area as remote as proposed would not be possible for any local companies to finance a buildout of this magnitude - it could only be done with grant opportunities. There are no existing terrestrial broadband services offered within the project area; however, if you consult the FCC Broadband Maps it does indicate satellite services and ADSL up to 5 Mbps which is inaccurate.

Staff Comments: The Russell IDA's co-applicant on this project is Grundy-based iGo Technology Inc. The applicants propose a project to expand its existing gigabit Ethernet network in Russell and Buchanan Counties that will be matched by a recently-announced \$3 million federal RUS grant that is reported to serve 600+ premises. Maps provided in the application show two distinct project areas: one in Russell between Buchanan County and the Russell communities of Finney and Cleveland serving 750 premises, to be funded by the Commission; and one in Buchanan serving 676 premises, to be funded by RUS. Construction includes 82+ new backbone and middle miles (45 in Russell and 37+ in Buchanan). Commission funds would be used on the Russell project area across all budget lines including engineering, permitting, construction materials and labor, pole attachment make-ready, customer premise equipment and installations, etc. The iGo project would then connect to SCTC fiber in its proposed project area near Cleveland to provide additional redundancy. The additional proposed funds requested from the Commission will pass a total of 1,426 residences (presumably a total for the two project areas), with a projected take rate of 50%, resulting in an anticipated 713 new subscribers across both project areas. Ninety percent of the new subscribers are expected to take service of 10/1 to 25/3 Mbps, with the remainder taking service of 25/3 or more. Monthly user charges for iGo broadband begin at \$50 for 10/1 Mbps, \$80 for 20/2 Mbps and \$100 for 30/5 Mbps. The cost to the Commission per anticipated subscriber is \$4,200, although if all TRRC funds are used in just the Russell project area the outcomes for the TRRC-funded project area appear to be 750 premises passed, with 375 anticipated subscribers at a per subscriber cost of \$8,000.

Scott County Telephone Cooperative

Big Ridge and the Surrounding Areas Broadband Initiative (#3383)

\$3,000,000 Requested

Executive Summary Provided by Applicant: Scott County Telephone Cooperative (SCTC) is proposing to build a Fiber-to-the-Premise Network in the Big Ridge Community in Dickenson County, Virginia and surrounding areas which includes a portion of Russell County, Virginia, which will pass 1,353 unserved locations. This network will connect to SCTC's existing fiber optic network in Dickenson and Russell Counties. This project will allow SCTC to extend its existing network farther into the mountainous unserved region. This network will be an IP (Internet Protocol) network using gigabit active Ethernet equipment. Once this network is complete, all customers will have the opportunity to receive Broadband services with the capacities up to one (1) Gigabit in bandwidth to each location and any futuristic application available from an Internet connection to the world.

Staff Comments: SCTC has received five TRRC grants totaling \$7 million since 2005 to provide broadband service to premises across multiple counties in SWVA, including backhaul for the Coalfield Coalition's 4G LTE wireless regional project that offers Verizon Wireless service. SCTC

proposes a project to expand its existing gigabit Ethernet network in Russell and Dickenson Counties that will be matched by a recently-announced \$3 million federal RUS grant that is reported to serve 600+ premises. Maps provided in the application show two distinct project areas: one in Russell serving 750 premises bounded roughly by Lebanon, Cleveland, Castlewood and Hansonville to be funded by the Commission, and one in Dickenson serving 600+ premises between Haysi and Clintwood to be funded by RUS. Construction includes 65 new backbone miles and 41 last miles. Commission funds would be used on the Russell project area across all budget lines including engineering, permitting, construction materials and labor, customer premise equipment and installations, etc. The additional proposed funds requested from the Commission will pass a total of 1,353 residences (in the two non-contiguous project areas), with a projected take rate of 55%, resulting in an anticipated 744 new subscribers across both project areas. Monthly user charges for SCTC broadband begin at \$40 for 3 Mbps, \$50 for 5 Mbps and \$60 for 25 Mbps. SCTC also offers a broad array of additional services including phone, television, security and other services offered in bundles or a la carte. SCTC estimates that all new subscribers will take service in the 10/1 to 25/3 speed ranges. The cost to the Commission per anticipated subscriber is \$4,032, although if all TRRC funds are used in just the Russell project area the outcomes in that area appear to be 750 premises passed, with 412 subscribers at a per subscriber cost of \$7,280.

Sussex County

Sussex County High Speed Broadband Initiative (#3379)

\$1,250,000 Requested

Executive Summary Provided by Applicant: Sussex County, Prince George Electric Cooperative and its subsidiary, PGEC Enterprises, LLC are collaborating on a fiber to the home (FTTH) high-speed broadband project that will eliminate the current void of broadband connectivity within the most rural portions of Sussex County via a cost effective, efficient model targeting population clusters between I-95 and Highway 460, encompassing more than 2,304 residents that currently lack high-speed Internet access. This same project area includes key existing industries as well as the Sussex megasite and Route 602 Industrial Park. Through use of existing personnel, equipment, and electrical infrastructure, the above partners intend to provide approximately 500 home hookups to high-speed broadband by midyear 2020. Sussex County, Prince George Electric Cooperative and PGEC Enterprises, LLC are contributing a total of \$1.25M to the project and are requesting total project match of \$1.25M from the Tobacco Commission - 50% of the \$2.5M total project cost.

Staff Comments: Sussex County's co-applicant on this project is PGEC Enterprises LLC, a recently-created company that was created by the nonprofit Prince George Electric Cooperative to initiate broadband service in neighboring Prince George in 2016. The Sussex project is expected to pass more than 2,300 residences, with an anticipated take rate of 40%, resulting in 922 residences taking 30 Mbps upload and download service at a monthly cost of \$82. The project involves 50 miles of backbone and 75 miles of last mile fiber stretching across Sussex from the US 460 corridor at Waverly to the I-95 corridor at Stony Creek. Based on the applicant's projections, the cost to TRRC per subscriber served is \$1,355 for engineering/construction. TRRC funds would be used for \$662k of backbone and distribution fiber construction, \$248k of fiber to the home, and the entire cost (\$340k) of customer premise equipment and installation. Sussex County and PGEC Enterprises each propose to provide \$250k in matching funds for engineering and construction, while PGEC will provide \$750k for the costs of backbone fiber that will serve as backhaul for the last mile, while also provide monitoring and security for its electrical substations.