

Application for Federal Assistance SF-424		
* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
* 3. Date Received: 08/17/2021	4. Applicant Identifier: <input type="text"/>	
5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>	
State Use Only:		
6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>	
8. APPLICANT INFORMATION:		
* a. Legal Name: Scott County Fiscal Court		
* b. Employer/Taxpayer Identification Number (EIN/TIN): 61-6000775	* c. Organizational DUNS: 0815982940000	
d. Address:		
* Street1: 101 E Main Street	<input type="text"/>	
Street2: 3rd Floor	<input type="text"/>	
* City: Georgetown	<input type="text"/>	
County/Parish: Scott	<input type="text"/>	
* State: KY: Kentucky	<input type="text"/>	
Province:	<input type="text"/>	
* Country: USA: UNITED STATES	<input type="text"/>	
* Zip / Postal Code: 40324-1794	<input type="text"/>	
e. Organizational Unit:		
Department Name: <input type="text"/>	Division Name: <input type="text"/>	
f. Name and contact information of person to be contacted on matters involving this application:		
Prefix: <input type="text"/>	* First Name: Joe	
Middle Name: <input type="text"/>	<input type="text"/>	
* Last Name: Covington	<input type="text"/>	
Suffix: <input type="text"/>	<input type="text"/>	
Title: Judge Executive		
Organizational Affiliation: Scott County Fiscal Court		
* Telephone Number: 859-213-3401	Fax Number: <input type="text"/>	
* Email: joe.covington@scottky.gov		

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

B: County Government

Type of Applicant 2: Select Applicant Type:

Q: For-Profit Organization (Other than Small Business)

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

*** 10. Name of Federal Agency:**

National Telecommunications and Information Admini

11. Catalog of Federal Domestic Assistance Number:

11.031

CFDA Title:

Broadband Infrastructure Program

*** 12. Funding Opportunity Number:**

NTIA-BROADBAND-INFRASTRUCTURE-PROGRAM-21

*** Title:**

BROADBAND INFRASTRUCTURE PROGRAM

13. Competition Identification Number:

NTIA-BROADBAND-INFRASTRUCTURE-PROGRAM-21

Title:

Broadband Infrastructure Program

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Scott County Rural Broadband Expansion Project

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="3,123,999.00"/>
* b. Applicant	<input type="text" value="15,303,000.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="18,426,999.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
2. Land, structures, rights-of-way, appraisals, etc.	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
3. Relocation expenses and payments	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
4. Architectural and engineering fees	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
5. Other architectural and engineering fees	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
6. Project inspection fees	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
7. Site work	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
8. Demolition and removal	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
9. Construction	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
10. Equipment	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
11. Miscellaneous	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
12. SUBTOTAL (sum of lines 1-11)	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
13. Contingencies	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
14. SUBTOTAL	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
15. Project (program) income	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
FEDERAL FUNDING			

17. Federal assistance requested, calculate as follows:
 (Consult Federal agency for Federal percentage share.)
 Enter the resulting Federal share.

Enter eligible costs from line 16c Multiply X [REDACTED] %

\$ [REDACTED]

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
 Expiration Date: 02/28/2022

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL MICHELE RAY	TITLE Judge Executive
APPLICANT ORGANIZATION Scott County Fiscal Court	DATE SUBMITTED 08/17/2021

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Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

*** NAME OF APPLICANT**

Scott County Fiscal Court

*** AWARD NUMBER**

NTIA-BIP-2021

*** PROJECT NAME**

Scott County Rural Broadband Expansion Project

Prefix: [] * First Name: Joe Pat Middle Name: []

* Last Name: Covington Suffix: []

* Title: Judge Executive

* SIGNATURE: MICHELE RAY

* DATE: 08/17/2021

NTIA Broadband Infrastructure Program: Scott County, KY: County-Wide Broadband Expansion

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1. Project Narrative

1.1 Executive Summary

Scott County is located in north central Kentucky, directly above Fayette County in the Lexington metro area. Residents of Georgetown, the county seat, are relatively well-connected with regard to broadband. The opposite is true for those living outside the city limits, [REDACTED] of whom live without the FCC’s minimum broadband definition of 25/3 Mbps.

In the wake of the Covid-19 pandemic, the County recognized this digital inequity could not remain unaddressed. In early 2021, the County engaged CTC Technology & Energy to perform a comprehensive, countywide plant survey. Through this process, [REDACTED] addresses were determined to be unserved. The County then issued a Request for Proposal (RFP) to identify a private partner best-suited to bridge this rural-urban service gap. Out of all the bidders, Spectrum Mid-America LLC (“Spectrum” or “Charter Communications”, the provider) submitted the most cost-effective, technologically capable solution.

Scott County and Spectrum (the covered partnership) are now working in tandem to expedite this rural network expansion. The covered partnership is seeking [REDACTED] in funding from the Broadband Infrastructure Program to make construction of the proposed network viable and feasible. Spectrum will be committing [REDACTED] to the project as a cash match, equivalent to [REDACTED] percent of total project costs. Spectrum’s RFP response made clear that they were the only provider willing to make such an investment -- all other bidders sought significantly more funding to close the return-on-investment (ROI) gap. Even accounting for grant funds, Spectrum is making a significant contribution to the future of Scott County.

Under the proposed project, [REDACTED] currently unserved homes will be connected through Spectrum’s fiber to the premises (FTTP) ethernet passive optical network (EPON) architecture. This EPON architecture will also enable Charter to meet, and substantially exceed, all latency requirements for the project area. The most recent Measuring Broadband America report released on January 4, 2021 tested latency over Charter’s Hybrid Fiber Coax (“HFC”) network using DOCSIS technology confirmed Charter is achieving latency of 26 milliseconds. Charter anticipates the same or lower latency with the FTTP EPON architecture deployed in the Project Area due to fewer active components in the path used in this architecture.

Last-mile FTTP EPON facilities will be deployed in all rural areas of Scott County. This fiber expansion will connect to Spectrum’s current “upstream” hub locations, then to Spectrum’s national backbone through a tiered network structure. The resulting FTTP EPON network will be highly scalable. As such, the network will be well-positioned to support customer growth and increasing data usage for the foreseeable future.

In addition to these [REDACTED] homes, the project will pass [REDACTED] community anchor institutions, two elementary schools, [REDACTED] registered businesses, three public buildings and [REDACTED] farms. If these funds are awarded, the resulting network will accelerate Scott County’s post-Covid economic recovery while repairing decades of digital inequity. In addition to farms and businesses, the proposed project would provide service to [REDACTED] equine facilities. Equine-related industries are critical for Scott County’s economy, with total industry

assets reaching \$326.61 million in 2012.¹ Suitable internet will enable these breeders and trainers to reach new customers online, the primary platform where modern auctions are held. Under the proposed project, this historic sector of Scott County's economy could adapt for the future.

¹ "Scott County Fact Sheet," 2012 Kentucky Equine Survey, http://equine.ca.uky.edu/sites/equine.ca.uky.edu/files/scott_county_fact_sheet_0.pdf (accessed August 5, 2012).

1.2 Description of the Covered Partnership

Scott County will serve as lead applicant for the covered project. The County will oversee project completion and assume legal and financial responsibility for the project. Scott County will work with Spectrum to verify project locations.

Spectrum, who was selected through a procurement process in accordance with Kentucky state law, will serve as co-applicant and private partner. Spectrum will construct the proposed project and will then own the resulting infrastructure and assume full operational responsibility for the network, including maintenance, customer support, and marketing. As part of their overall scope, Spectrum will verify project data regarding unserved households, secure necessary permits, pole attachments, and other authority as necessary to support the project. In addition, Spectrum will complete the construction plan (including timeframe and costs) and manage all other aspects of the construction effort.

Spectrum has a capable in-house construction team. If the project requires additional construction capacity, Spectrum will use contract vehicles already in place with vendors in the area.

CTC Technology & Energy provided grant consultation services and assisted Scott County in preparing this application. Table 1 provides a summary of all entities participating in the covered partnership.

Table 1: Funded Project Participants and Unfunded Informal Collaborators

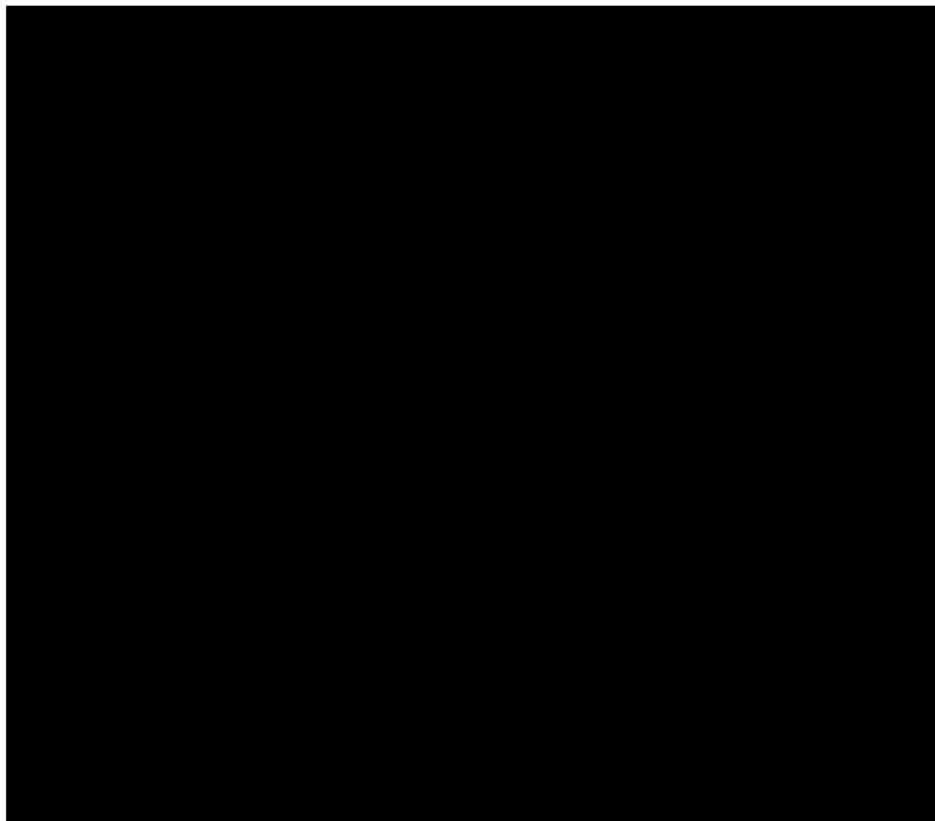
Organization Name	Organization Address	Administrative Role	Scope of Work	Proposed Funding Amount
Scott County	101 East Main Street, Georgetown, Kentucky 40324	Lead Applicant	Overseeing project completion, assuming legal responsibility for all applicable project elements	
Spectrum Mid-America, LLC (Spectrum)	4701 Commerce Crossing Drive, Louisville, KY 40229	Subrecipient	Constructing the proposed project, operating and maintaining the constructed network Providing commercial internet service	

			through the completed network	
CTC Technology & Energy	10613 Concord Street, Kensington, Maryland 20895	Collaborator	Provided grant consultation services	\$ --

For resumes of key personnel, see Attachment G.

1.3 Description of the Covered Broadband Project

Spectrum will oversee construction of approximately 412.7 fiber route miles to serve 5,351 addresses in the project area, reaching 100 percent of currently unserved homes. The proposed network will connect each of these unserved addresses through Spectrum’s FTTP EPON network. Spectrum will contribute \$15,303,000 toward total project costs, equivalent to 342.75 route miles or 83.05 percent of total project expenses. The covered partnership is requesting to fund the remaining 69.95 route miles (equivalent to 16.95 percent of total project costs) through the Broadband Infrastructure Program. Figure 1 provides an aerial view of the project area.



he project area is marked in orange, while identified unserved addresses are marked in red. Spectrum will expedite finalization of the project routes and network designs should an award be made. A physical description of tentative routes is included in Section 1.9.

Spectrum estimates that 95 percent of the network will be installed aerially. The remaining network portions will be installed underground. All fiber will be installed along current roadways.

The project will use Spectrum’s FTTP EPON architecture. This architecture will also enable Charter to meet, and substantially exceed, all latency requirements for the project area. The most recent Measuring Broadband America report released on January 4, 2021 tested latency over Charter’s Hybrid Fiber Coax (“HFC”) network using DOCSIS technology confirmed Charter is achieving latency of 26 milliseconds. Charter anticipates the same or lower latency with the FTTP EPON architecture deployed in the Project Area due to fewer active components in the path used in this architecture.

Under the proposed project, last-mile FTTP EPON facilities will be deployed in all unserved, rural areas of Scott County. The fiber expansion will connect to Spectrum’s current “upstream” hub locations, then to Spectrum’s national backbone through a tiered network structure. For the Project in Scott County, KY, Spectrum will be able to leverage its pre-existing hub location in Georgetown. Spectrum’s ability to connect the proposed last-mile network to this pre-existing hub facility will both help simplify the scope of the proposed Project and will result in efficiencies for both the Project budget and timeline.

Spectrum’s FTTP EPON last mile will connect an optical network unit (ONU) at the customer’s location to an optical line terminal (OLT). OLTs will be installed on poles, inside of a hardened outdoor cabinet, or inside Spectrum hub sites. Spectrum will deploy additional OLTs in the field as needed. Additional fiber will be installed between the OLTs and individual homes, businesses, and anchor institutions in the project area. For a diagram of Spectrum’s last-mile FTTP EPON architecture, see Attachment A.

Spectrum will offer service at the following rates and speed tiers:

Table 2: Spectrum Service Offerings and Prices

Speed Tier ²	Downstream Mbps	Upstream Mbps	Standard Monthly Rate – without Promotional Pricing ³	Installation Fee
Spectrum Internet Assist ⁴	30	4	\$17.99	\$0.00 ⁵
Spectrum Internet	200	10	\$74.99	\$49.99
Spectrum Internet Ultra	400	20	\$94.99	\$49.99
Spectrum Internet Gig	1000	1000	\$134.99	\$199.99

Spectrum Enterprise services will be available through the proposed network, though pricing varies based on service location, volume and features purchased.⁶

Spectrum anticipates new subscribers along project routes will generate revenue of ██████████ for the first year of operation, ██████████ for the second, and ██████████ for the third. Spectrum anticipates new subscription rates will plateau in Year Four of operation, generating ██████████ in revenue each subsequent year. These estimates assume a take-rate of ██████████ percent for year one, increasing to ██████████ percent by year three. Take-rate projections draw from Spectrum’s experience in similar markets. See Section 1.6 for a detailed discussion on project sustainability.

1.4 Description of the Proposed Service Area

Scott County is located in north central Kentucky, situated directly north of Fayette County and the Lexington metro area. Scott County’s population is just below 58,000 residents, a nearly 10,000-person increase from the 2010 census.⁷ The County itself spans approximately 280 square miles. Its largest city and County seat, Georgetown, is at the crossroads of I-75 and U.S. Route 460. The other two population centers in the County are Sadieville in the northeast and Stamping Ground in the west.

The largest industries in the County include manufacturing, healthcare and social services, and educational services. Companies that have benefited from Scott County’s favorable location, skilled workforce, and quality of life include Toyota Motor Manufacturing Kentucky, Phoenix Transportation, Vascor, Ryder System, Toyota Tsusho America, R.J. Corman Railroad Group, and Lyons Co. Additionally,

² Represented pricing is for wireline broadband service only. In addition to wireline broadband services, Charter will also offer video, voice, and mobile services in the grant area.

³ Customers can add WiFi for \$5.00 per month (Spectrum Internet Assist, Spectrum Internet & Spectrum Internet Ultra).

⁴ Spectrum’s Internet Assist program provides 30 Mbps broadband to qualified families with children on the National School Lunch Program or seniors receiving supplemental security income. Spectrum also participates in the national low-income FCC Emergency Broadband (“EBB”) program.

⁵ For customers choosing a self-installation alternative; there is a fee for professional installation.

⁶ See Attachment B for additional Spectrum Enterprise product details

⁷ “QuickFacts: Scott County, Kentucky,” U.S. Census Bureau, <https://www.census.gov/quickfacts/fact/table/scottcountkentucky,KY/PST045219> (accessed August 11, 2021).

the County is home to historic Georgetown College, founded in 1829. As of July 1, 2019, there were approximately 950 businesses and 20,000 households in the County. The median mortgage rate is \$1,300 per month, while median rent is \$900.

Internet availability is drastically different between the County’s urban and rural areas. In the wake of the pandemic, the County recognized this problem could not remain unaddressed. The first step toward solving the County’s digital divide was developing a granular understanding of the region’s unserved areas. In early 2021 the County engaged CTC Technology & Energy to perform a comprehensive, countywide plant survey. CTC engineers and GIS technicians drove on every road in the County, inspecting all pole lines and underground facilities for the presence of broadband infrastructure. CTC independently confirmed 5,351 unserved addresses throughout the County.⁸ The County then issued a Request for Proposal to identify a private partner best-suited to bridge this rural-urban service gap. Out of all the bidders, Spectrum provided the most cost-effective, technologically capable solution. Upon receiving the contract and in preparation for the final build, Spectrum confirmed the total unserved locations to be [REDACTED]. Each of these addresses will be served under the proposed project.

Attachment C provides a summary of the proposed project’s impact on each of the 743 census blocks in the project area.

In addition to these [REDACTED] homes, the project will serve [REDACTED] community anchor institutions, [REDACTED] elementary schools, [REDACTED] registered businesses, [REDACTED] public buildings, [REDACTED] farms and [REDACTED] equine operations. Attachment K provides a summary of all organizations to be passed by the covered project.

1.5 Description of Addressed Statutory Funding Priorities and Explanation of How They Will Be Addressed

The covered project is designed to provide broadband service to the greatest number of households in an eligible service area. The project will provide service to 100 percent of the estimated [REDACTED] currently unserved households in the project area. It will also pass an estimated [REDACTED] unserved businesses and [REDACTED] community anchor institutions. As previously stated, [REDACTED] 1 of these addresses were verified to be unserved by an outside plant survey CTC conducted in April 2021. More unserved addresses may be identified as Spectrum finalizes network designs. If constructed, the proposed project will provide an entire county with affordable, future-proof connectivity.

The project itself is located in Scott County, Kentucky. Though the County’s population is estimated to be 57,004 residents, Georgetown alone is home to 34,992 individuals.^{9 10} The proposed project focuses entirely on the rural, unserved areas of the County and excludes Georgetown. Therefore, the project

⁸ See Attachment D for a .KMZ of CTC’s findings

⁹ U.S. Census Bureau, *Ibid.*

¹⁰ U.S. Census Bureau. (2021). QuickFacts: Georgetown, Kentucky, *U.S. Census Bureau*, <https://www.census.gov/quickfacts/fact/table/georgetowncitykentucky/PST045219>.

satisfies NTIA’s second statutory funding priority by serving only 22,012 inhabitants, significantly under the 50,000-inhabitant criteria specified in the Notice of Funding Opportunity (NOFO).

The covered project is highly cost-effective while prioritizing County areas that are the most rural. Due to the project area’s low population density, no provider has considered the region viable for private investment. The proposed project represents a significant opportunity for NTIA to ensure public funds have maximum impact in residents of Scott County. With Spectrum pledging to contribute [REDACTED], or [REDACTED] of total project costs, NTIA can ensure this community is connected for the foreseeable future through an investment of only [REDACTED].

The covered project is designed to provide broadband service with a download speed of well above 100 megabits per second and an upload speed far exceeding 20 megabits per second. Spectrum’s network specifications for the project will leverage the capabilities of Spectrum’s FTTP EPON network architecture. This network design will greatly surpass the Broadband Infrastructure Program’s minimum speed requirement. As set forth in Section 1.3, the project will offer broadband speeds of up to 1 Gbps symmetrical service with latency below 26 milliseconds.

1.6 Description of Addressed Evaluation Criteria

Scott County is acutely aware of the digital gap between those who live in Georgetown and those in rural areas, many of whom struggled during the pandemic due to inadequate internet. Through its engagement with CTC, the County developed a granular understanding of the service area’s level of need and, as such, worked with Spectrum to design a project that will ensure service availability for all project beneficiaries, resulting in the best possible expected outcomes.

Service Area Level of Need

CTC conducted an outside plant survey in April 2021, identifying approximately [REDACTED] locations in Scott County that lack access to 25/3 Mbps internet service. This figure illustrated the large need in the County for both affordable and quality service providers. More unserved homes may be identified as Spectrum finalizes network designs.

Like much of rural America, the digital gap in Scott County was laid bare by the Covid-19 public health emergency. Residents in these unserved areas struggled with remote learning when Scott County public schools were virtual from learning in September of 2020.¹¹ Beth Smith, one such resident, expressed frustration to local news outlet WTVG-TV over her internet service’s inability to support virtual learning:

¹¹ “Start of Virtual School,” Scott County Government. <https://scottky.gov/start-of-virtual-school/>. Accessed 15 August 2021.

“During COVID, we did homeschooling and virtual learning – very hard to do with a child who can’t keep connected,” Smith is reported as saying.¹²

Smith had been laid off during the pandemic and began working towards a degree online. However, sub-par service at her home made pursuing an education remotely almost impossible:

“In getting it, just to take the classes and to take the tests that are with the class, I wasn’t able to do that because my system was not fast enough,” Smith said.¹³

Smith was not the only Scott County resident whose livelihood suffered during the pandemic. In Scott County, unemployment has been higher following the outbreak of the coronavirus in spring 2020 than in the previous year. In April 2020, unemployment reached 21.5 percent as Toyota and other major industrial companies were forced to lay off employees. Many employees were able to return to work quickly once health safeguards were in place, but unemployment still stood at 5.9 percent in August 2020, significantly up from 3.5 percent in August 2019.¹⁴

The proposed network will accelerate Scott County’s post-Covid-19 economic recovery while repairing decades of digital inequity. The proposed network will fully support both remote learning and remote working. Residents who are now digitally isolated will also be able pursue online entrepreneurship and gig economy opportunities. These residents will be able to apply to jobs online and connect with opportunities through professional networking platforms.

When Beth Smith was made aware of network expansion of the proposed project, she was overjoyed at the idea of having adequate internet for the first time since she began living at her current address in Scott County:

“It’s gonna be Christmas in August for us,” She is reported as saying.¹⁵

The covered project would also provide indispensable connectivity to 52 farms in the project area. Through Spectrum’s network expansion, these farms will be able to take full advantage of precision agriculture technologies as they emerge, increasing productivity and ensuring the area retains a

¹² Hagan Wells, “UPDATE: Scott residents to receive expanded broadband connectivity,” WTVQ, August 2, 2021, <https://www.wtvq.com/2021/08/02/scott-county-resident-to-receive-expanded-broadband-connectivity/> (accessed August 5, 2021).

¹³ Wells, *Ibid*.

¹⁴ Information provided by Scott County, KY and verified via <https://fred.stlouisfed.org/series/KYSCOT9URN>.

¹⁵ Wells, *Ibid*.

competitive edge. Precision agriculture will also help make farming more environmentally friendly, requiring less water and only the minimum necessary amount of pesticides.¹⁶

Equine-related industries are critical for Scott County’s economy. As of the 2012 Kentucky Equine Survey, Scott County is home to an estimated 7,000 horses across 680 equine operations. The County’s equine and equine-related assets totaled \$326.61 million in that year.¹⁷ Suitable internet will enable these breeders to reach new customers online, the primary platform where modern auctions are held. Twenty-two of these facilities will be served through the proposed network expansion. Under the proposed project, this historic sector of Scott County’s economy will be able to adapt for the future.

Affordability of Services Offered

The proposed project will support Spectrum’s affordable, high-speed internet subscription packages. Spectrum’s services compare favorably to national benchmarks. Even before considering any available promotions, Spectrum’s standard pricing for its Spectrum Internet (200/10) and Spectrum Internet Ultra (400/20) tiers are well below the average, comparable urban rates identified by the FCC. Moreover, Spectrum’s planned pricing for its Spectrum Internet Gig tier compares favorably to the FCC’s benchmark for 940/35 service, while offering superior performance.¹⁸

Table 3: Affordability of Charter Spectrum Services

Speed Tier	Downstream Mbps	Upstream Mbps	Standard Monthly Rate – Without Promotional Pricing as of July 2021 ¹⁹	FCC Benchmark (Urban Rate Survey)
Spectrum Internet Assist*	30	4	\$17.99	\$90.23
Spectrum Internet	200	10	\$74.99	\$111.48
Spectrum Internet Ultra	400	20	\$94.99	\$125.53
Spectrum Internet Gig	1000	1000	\$134.99	940/35 Mbps service priced at \$147.17

¹⁶ “How Broadband Can Change the Agriculture Industry,” Intelligent Fiber News, <https://www.intelligentfiber.com/how-broadband-can-change-the-agriculture-industry/> (accessed July 26, 2021).

¹⁷ Kentucky Equine Survey.

¹⁸ “Urban Rate Survey Data & Resources,” FCC, July 14, 2021, <https://www.fcc.gov/economics-analytics/industry-analysis-division/urban-rate-survey-data-resources> (accessed August 12, 2021).

¹⁹ Spectrum may also offer promotional pricing, including bundled discounts starting as low as \$49.99 (certain conditions may apply). Spectrum’s current promotional offerings can be found at the following link: www.spectrum.com. All promotional offers are subject to change, may not be available in all areas or to all customers.

Spectrum’s general service offerings were priced to be both affordable while providing suitable bandwidth to support modern needs. The provider also offers Spectrum Assist, a low-income option priced at just \$17.99 a month for residents participating in the National School Lunch Program and seniors receiving supplemental income. Spectrum will also cover all CPE costs for Spectrum Assist subscribers in the project area.

Additionally, Spectrum participates in the Emergency Broadband Benefit program. New subscribers along grant-funded routes have the option to sign up. Moreover, on completion of the project, all residential customers in Scott County will have the option to request a speed tier upgrade (“Opt-in”), where they receive the next-highest speed tier while only paying their previous tier’s rate for 36 months.

Project Sustainability

Spectrum is a leading broadband provider with an established track record of constructing sustainable networks. Through its subsidiaries and affiliates, Spectrum provides service in 41 states to more than 31 million customers, including approximately 29 million broadband customers. Spectrum will have access to the full resources, expertise and will leverage its existing network to fulfill obligations under the Broadband Infrastructure Program.

Rural areas of Scott County have both a low population density and high costs per passing, making it unlikely that private investment will result in the extension of a comparable fiber network to the project area without broadband grant assistance to make construction economically feasible.

Support through the requested NTIA grant, however, would make the project commercially viable. Spectrum anticipates new subscribers along project routes will generate revenue of ██████ for the first year of operation, ██████ for second, and ██████ for the third. Spectrum anticipates new subscription rates will plateau in Year Four of operation, generating ██████ in revenue each year after. These estimates assume a take-rate of ██████ percent for year one increasing to ██████ percent by year three. Take-rate projections are drawn from Spectrum’s experience in similar markets. See Attachment E for a detailed breakdown of the proposed project’s financial sustainability.

When the requested grant is applied, the return-on-investment payback will occur in year 11. Without grant funding, the return-on-investment payback is in Year 14. This payback is reasonable based on comparable risk-adjusted investment opportunities, resulting in a project that is sustainable in the long term and ensures the continued provision of quality services to the project area in future years. Without gap funding from NTIA, there will continue to be no business case for expanding the network in the project area. In fact, Spectrum’s RFP response made clear that they were the only provider willing to take the risk. All other bidders sought significantly more funding to close the ROI gap. Even with grant funds considered, Spectrum is making a significant investment in Scott County.

1.7 Description of How the Project Will Have the Ability to Scale Over Time

The FTTP EPON architecture Spectrum will use to construct the project is highly scalable. As such, the network will be well-positioned to support customer growth and increasing data usage for the foreseeable future.

As Spectrum adds customers over time and as customers consume more bandwidth, Spectrum’s scalable model and proven capacity management processes will accommodate this growth. While Spectrum will be building a new last mile FTTP EPON network in the project area, this last mile network will be connected to Spectrum’s existing robust and scalable network tiers. Spectrum augments its capacity through normal operating procedures, and these procedures will extend to the proposed project area seamlessly. Spectrum’s primary method to achieve network scalability is by designing in functional tiers. These multiple tiers allow Spectrum to prevent overwhelming a higher tier when additional components are needed to support more connections or bandwidth, until additional capacity is added.

Spectrum’s processes for monitoring and scaling up capacity are proven and effective. Starting in March 2020, bandwidth usage per customer increased significantly due to working and schooling from home. This steep traffic growth was highly atypical. However, because of the tiered designs and the ability to scale up or scale out at the different tier levels, Spectrum was able to meet unusually high customer demand and ***increase broadband internet customers by an industry-leading 2.2 million in 2020.***

Spectrum proactively monitors and identifies network areas that need speed upgrades through a dedicated network monitoring team. This team continuously conducts a growth analysis by comparing the current peak-hour traffic to prior years’ data. The team then plans for expected capacity needs and related purchases and deployments. The analysis is used to forecast, purchase, and deploy additional licenses and hardware needs for Spectrum’s FTTP EPON network. As additional capacity is identified in the project area, Spectrum’s team will be there to upgrade accordingly. However, given the capabilities of the proposed project’s FTTP EPON design, Spectrum does not anticipate such augmentation will be necessary for decades to come.

1.8 Project Plan

Because Spectrum has a well-established process for initiating and overseeing new construction projects, existing relationships with contractors to perform design, make-ready and construction work, and holds numerous regulatory authorizations and pole attachment agreements that can facilitate prompt access to rights-of-way and utility poles, it anticipates that it would be able to start work on the Project promptly upon approval.

Due to the size and complexity of the Project, the Covered Partnership believes that an extension of the presumptive 12-month timeframe would be required to extend service to the project area, and therefore requests an extension of the timeline to 24 months in connection with this application. However, the Covered Partnership has a plan to begin work promptly and complete the project on a defined timeline, subject to timing of grant awards, pole attachment make-ready work required to install

facilities, permitting delays, ability to access relevant locations, or other delays outside Spectrum’s reasonable control, including pandemic-related or raw materials shortages.

The Project will be able to leverage existing Spectrum headend, backbone, and interconnection facilities, and will not require the construction of new buildings, towers, or other structures. Rather, it will consist solely of the construction of last-mile wireline fiber facilities from a pre-existing Charter hub to end-user locations.

Spectrum will conduct a formal field walkout during months one through four after an award has been made. Network design will begin in month one and will be completed by month six. Pole and permit applications will begin during month two and will be completed by month 11. Pole make-ready work will begin by the third month and will be completed by month 17. Fiber placement will begin in month eight and will continue through month 21. Network splicing and testing will begin by month 10 and will continue through month 23. Final network activation will begin by month 13 and will be completed in month 24.

See Attachment L for a complete project timeline.

Spectrum’s in-house construction department is well-equipped to handle all construction processes – everything from obtaining permits to managing all pole “make-ready” work. Spectrum will be working with the County to ensure quick action on any permitting. As such, State permitting is anticipated to be resolved within 60 to 90 days. Scott County has already provided Spectrum in proactively identifying make-ready work through the unserved areas of the County, allowing for prioritization of those construction areas. Spectrum also has standing relationships with the main power companies in the area (Kentucky Utilities, Blue Grass Energy, Owen Electric, and East Kentucky Power Co-Op). Spectrum has a well-developed process for initiating and managing broadband construction projects, as well as for promptly obtaining access to utility poles and any necessary rights of way. Spectrum has established relationships with contractors who will perform design, make-ready, and construction work on the project. Spectrum’s pre-existing procedures, construction management system, and ability to engage third parties will enable it to begin work on the project promptly upon authorization.²⁰ Spectrum also has agreements in place with suitable contractors in the area and will engage them if the project requires additional construction capacity.

Spectrum is committed to connecting residents of rural Scott County as quickly as possible. Charter will finalize a specific design for the Project Area after completing a Field Walkout, with the objective of completing a design that will connect all of these locations by deploying broadband facilities into adjacent

²⁰ Subject to timing of grant awards, pole attachment make-ready work required to install facilities, permitting delays, ability to access relevant locations, or other delays outside Spectrum’s reasonable control, including pandemic-related or raw materials shortages.

rights-of-way and performing standard installations (*i.e.*, standard aerial drops). The Covered Partnership is not presently aware of any circumstances that would make this objective unworkable or commercially impractical with respect to any particular locations in the Project Area.²¹

1.9 Description of the Physical Project and Its Surroundings

Scott County is located in north central Kentucky and is part of the Lexington-Fayette Metropolitan Statistical Area. The County is also part of the Inner Bluegrass region of Kentucky. The County itself is 281.77 square miles and ranges in elevation from 690 to 1,060 feet above sea level.²² Topography varies from gently rolling knolls to hilly regions, while ridgetop elevation generally ranges between 900 and 1,000 feet.²³ The area's greatest local reliefs are around Eagle Creek with an elevation difference of 140 feet. The area's lowest point sits at 690 feet where the North Elkhorn Creek exits the County boundary.²⁴ The County features two main river systems: North Elkhorn Creek and Eagle Creek.

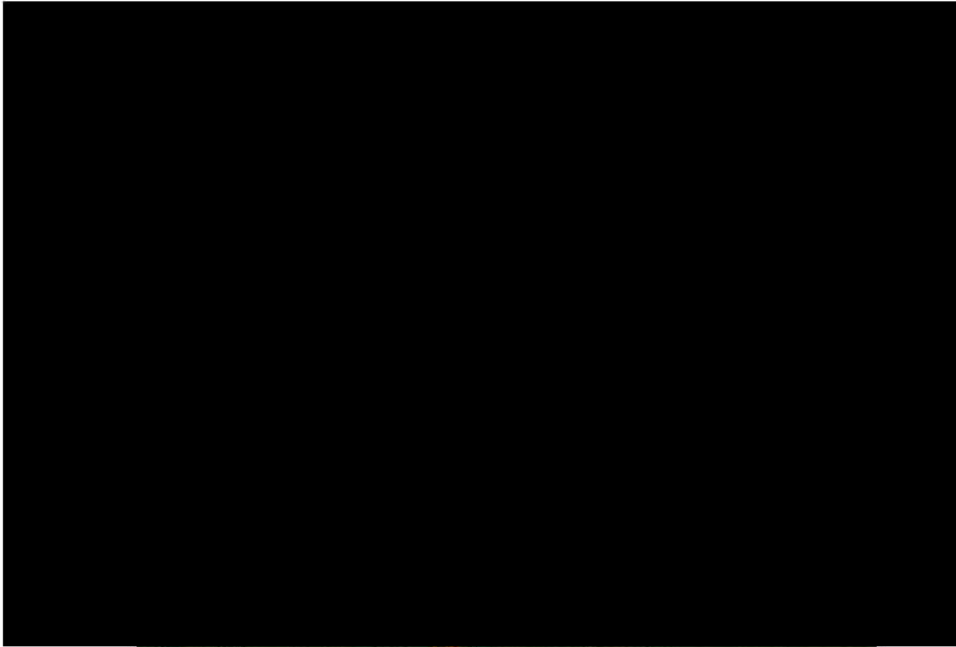
The covered project will provide ubiquitous fiber service throughout the unserved areas of Scott County, Kentucky. As such, fiber will be installed aurally along 412.7 miles of roadway to reach every address. Figure 2 provides an overview all unserved addresses in the county to be served by the covered project.

²¹ The objective of connecting all locations in this manner may be limited by constraints in individual cases, e.g., where property owners do not allow necessary access, where Charter cannot obtain access to necessary private easements or rights-of-way, or where a non-standard installation is required.

²² Scott County, Kentucky, Kentucky Atlas & Gazetteer. <https://www.kyatlas.com/21209.html> (accessed August 5, 2021).

²³ Scott County Topography, Kentucky Geological Survey, University of Kentucky. <http://kgs.uky.edu/kgsweb/download/gwatlas/gwcounty/scott/scottel.jpg> (accessed August 5, 2021).

²⁴ *ibid.*



In the east,



). Spectrum will expedite finalization of the project routes and network designs should an award be made.

For a preliminary environmental review conducted in accordance with the National Environmental Protection Act (NEPA) (42 U.S.C. 4321 *et seq.*), see Attachment F. Upon award, the covered partnership will contact the Kentucky Heritage Council (KHC) to ensure all construction is in compliance with the National Historic Preservation Act (NHPA) (54 U.S.C. 300101 *et seq.*).

Charter’s construction project management system, called PRISM, contains an exhaustive guided workflow to manage all aspects of the construction process, including all necessary federal, state, and/or local governmental permits and approvals. The PRISM permit module enforces strict adherence to permitting rules, ensuring that steps in construction do not proceed without verified and approved permit documentation present in the system. Training is conducted frequently by a dedicated training group in Charter’s Field Engineering support organization to ensure Charter’s Construction Coordinators are well versed on the business processes and systemic solutions. This process ensures all projects are managed effectively and efficiently.

This grant is subject to Executive Order 12372. This application and relevant supporting materials will be submitted to Lee Nalley of Kentucky’s Governor’s Office for Local Development, the appropriate contact as designated by the order’s State Single Point of Contact list.²⁵

1.10 Description of Any Support Provided to the Provider of Broadband Service That Is Part of the Covered Partnership

While Spectrum has been awarded approximately \$58 million through the Rural Digital Opportunities Fund (RDOF) throughout areas in the Commonwealth of Kentucky, none of those areas are located in Scott County. In fact, Spectrum has no history of receipt of federal or State funding relating to building or expanding broadband infrastructure in Scott County, Kentucky. Table 4 below summarizes this information based on specific funding sources noted in the program NOFO.

²⁵ Intergovernmental Review SPOC List. 20 April 2020. <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>. Accessed 8 August 2021.

Table 4: Summary of Past Awards

Funding Source	Awarded?	Amount	Status (if applicable)
Education Stabilization Funds provided under the heading “DEPARTMENT OF EDUCATION” in Title VIII of Division B of the CARES Act (Public Law 116–136; 134 Stat. 564)	N/A	N/A	N/A
Grants provided under Section 6001 of the American Recovery and Reinvestment Act of 2009 (47 U.S.C. 1305)	N/A	N/A	N/A
High-cost universal service support provided under Section 254 of the Communications Act of 1934 (47 U.S.C. 254)	N/A	N/A	N/A
Grants, loans, or loan guarantees provided by the Secretary of Agriculture under the ReConnect Program authorized under Section 779 of Division A of the Consolidated Appropriations Act, 2018 (Public Law 115–141;132 Stat. 348)	N/A	N/A	N/A
Grants, loans, or loan guarantees provided by the Secretary of Agriculture under Title VI of the Rural Electrification Act of 1936 (7 U.S.C. 950bb <i>et seq.</i>)	N/A	N/A	N/A
Grant, loan, or loan guarantee provided by a State to the provider of broadband service for the deployment of broadband service in the proposed service area	N/A	N/A	N/A
Grants, loans, or loan guarantee provided by the federal government for the provision of broadband service	N/A	N/A	N/A

1.11 Description of Labor Standards

Spectrum will require contractors, subcontractors, and staff to adhere to applicable federal, State, and local regulations, codes, and standards for electrical and other work. All contractors and subcontractors of Spectrum will be required to maintain minimum insurance coverage deemed acceptable to Scott County.

Spectrum’s established minimum wage is twice the federal minimum wage.

Spectrum takes the safety of employees and contractors very seriously. When incidents do occur, Spectrum reports, investigates, and documents the event in accordance with applicable federal and State regulations. Any injury that meets the Occupational Safety and Health Administration (OSHA) criteria is recorded and maintained to meet regulatory requirements and Spectrum’s internal policy.

2. Appendix of Additional Required Documents

- **Budget Narrative and Detailed Budget Justification**

A detailed budget narrative is provided as a separate document.

A detailed budget justification spreadsheet is attached to the application supporting materials as Attachment H.

- **Letters of Commitment**

Letters of Commitment are attached to the application supporting materials as Attachment I.

- **Maps of Proposed Service Areas**

Maps in .kmz format have been attached to the application supporting materials as Attachment J.

- **Pro Forma Financial Information and Analyses**

Pro forma projections and current financial statements are attached to the application supporting materials as Attachment E.

- **Network and System Designs**

Network and System designs are attached to the application supporting materials as Attachment A.

Joe Pat Covington

(b) (6)

Phone: (b) (6)

Email: joe.covington@scottky.gov

Professional Experience

Scott County Judge Executive /Scott County Fiscal Court

Jan. 2019 -Present

- The county judge/executive is the chief executive of the county. The judge/executive is specifically charged with executing all ordinances and resolutions of the fiscal court.
- All contracts entered into by the fiscal court, and all state laws subject to enforcement by the judge/executive or subordinate officers.
- Responsible for the financial administration of county government , these responsibilities now include preparation of the county budget, oversight of county funds, financial reports to fiscal court, and fiscal recordkeeping.

Scott County High School Principal

Aug. 2015- July 2018

- Evaluated teachers, counselors, and assistant principals through TPGES standards
- Hired and supervised all staff app. 110 employees
- Managed financial budget of school

Assistant Principal and Athletic Director

July 2007 – Aug. 2015

Tates Creek High School

Teacher In-School Suspension "SAFE" Program Coordinator- Aug. 2004 to July 2007
Teacher Introduction to Chemistry and Physics Aug. 1993- May 2004

Scott County High School

Teacher Biology and Physical Science

Aug 1992- Aug. 1993

Education

**Rank I Masters of Arts Educational Leadership
Eastern Kentucky University**

May 2007

**Masters of Arts in Education
Georgetown College**

May 1995

**Bachelors of Science
Georgetown College
Major Biology Minor Chemistry and Political Science**

May 1991

**High School Diploma
Scott County High School**

May 1986

National

Tom Rutledge, Chairman and Chief Executive Officer, Charter Communications

Thomas M. Rutledge is the Chairman and Chief Executive Officer of Charter Communications, which under the Spectrum brand provides Internet, TV, Voice and Mobile communications to more than 31 million customers in 41 states, with more than 96,000 employees. Under Tom's distinguished leadership, Charter has been positioned to be the connectivity provider of choice for both residential and business customers, having invested \$40 billion in technology and infrastructure since 2016. The company's Spectrum-branded services are backed by outstanding service — the result of returning the work of thousands of customer service jobs from overseas to U.S. call centers and insourcing its technical workforce, prioritizing superior craftsmanship with every customer interaction. Prior to becoming CEO of Charter in 2012, Mr. Rutledge served as Chief Operating Officer of Cablevision Systems, where he oversaw the company's cable television business; Rainbow Media, the company's national programming business, which includes the AMC, IFC, Sundance TV and WEtv networks; Clearview Cinemas and Newsday. While at Cablevision, Mr. Rutledge oversaw a \$5 billion fiber-optic network upgrade, the first high-definition video on demand offering, the first cable footprint-wide rollout of VoIP phone service, the first WiFi mesh wireless cable network deployment, and greenlit the iconic television series *Mad Men*, *Breaking Bad*, and *The Walking Dead*. Tom began his cable career in 1972 at Easter Telecom working as a technician while going to college. He received a B.A. in economics from California University in California, Pa., in 1977.

Tom Adams, Executive Vice President, Field Operations, Charter Communications

Tom Adams is responsible for providing national oversight of the Field Operations for Charter Communications and for leading a team dedicated to Charter's rural deployment efforts. Tom's leadership capabilities were demonstrated during the 2016 merger with Time Warner Cable and Bright House Networks, during which he was responsible for making measurable improvements in operations and management. Prior to his current role as Executive Vice President, Tom spent 17 years in Operations under Time Warner Cable, including working as the Regional Vice President of Operations for Wisconsin and the Regional Vice President of Operations for Eastern Carolina. He received an associate degree in applied science, engineering from State University of New York at Delhi, and a B.S. in engineering from Florida International University.

Local/Regional

Jerry Avery, Area Vice President

Jerry has an extensive history in the communications industry, having served in a number of leadership positions for Charter Communications, Time Warner Cable, Insight Communications, and Comcast. As Charter's Area Vice President of Field Operations supporting the company's Kentucky and Southern Indiana markets, he oversees the management and daily operations of all activities supporting Charter's field operations, including construction, installation, service, and line extension activities as well as overseeing all employees and projects in those areas to ensure the work is handled expediently and within Charter's strict specifications. In this role, he also contributes to the company's strategies for Kentucky through the preparation of business fulfillment plans, budgeting and forecasting and provides direction to field management for overall fulfillment of operations including technical, construction, system maintenance, safety, Field Ops engineering, Technical Quality Assurance and cost controls. Jerry also develops work productivity, quality and overtime standards for all field technicians, and ensures quotas and staffing align with business goals and trended future volume of activity. He also oversees business partner relationships to ensure staffing levels are met.

Eric Lannen, Director, Field Engineering

Eric brings more than 28 years of experience in the communications industry, having served in a number of leadership positions for Charter Communications, Northland Communications, CWSI and Comcast. As Charter's Director of Field Engineering supporting the company's Kentucky and Southern Indiana markets, he is responsible for management of overall construction and plant maintenance activity, including design, funding, construction, quality control, invoicing, and customer release for install. Eric brings a consistent history of developing high-performance cultures, having also worked to support network operations and outside plant, technical operations, headends, fleet management and major rebuilds.

Scott County – Charter Spectrum Broadband Expansion Project
Attachment XX

Institutions to be Served by the Covered Project

Anchor Institutions	White Sulphur Baptist Church	Newtown Christian Church
	Dry Run Baptist Church	Georgetown Evangelical Free
	Regina Pacis Chaplaincy	Cedar Grove Baptist Church
	Minorsville Christian Church	Church Parsonage Minorsville
	Long Lick Baptist Church	Corinth Christian Church
	Mt. Gilead United Methodist Church	GracePoint Church
Schools (K-12)	Eastern Elementary	Northern Elementary
Businesses	A & B Appliance Repair	Keystone Home Solutions, LL
	A Step In Time LLC	Kiki's Flowers
	Ace Contracting	Kleintop Forge, LLC
	Aces of Air	Knotty Pine Custom Woodworking
	Acton Co Builders, LLC	L A Plumbing Co.
	Ad-Success, Inc.	Lakeside Woodworks
	Akers Lawncare	Lawson Industrial, Inc.
	Al's Electric	Le Beau Chateau, LLC
	All Critters Pet Sitters LLC	Leading Edge Armory
	Amar Disinfecting and Cleaning LLC	Leatherback Lures & Taxidermy
	AMar Disinfecting and Cleaning LLC	Little House Interiors
	Animal House Boutique, LLC	Longview Resort, LLC
	Ascending Acres LLC	Lucto Pottery
	AtHome Autocare	M & S Electric LLC
	Attention to Details Cleaning LLC	M G S Properties, LLC
	Aunt Shanna's Childcare Center, LLC	M H Pennington, Inc.
	B & D Antiquities	M's Desserts, LLC
	B 2 Properties	Make It Right Cleaning
	B T Construction LLC	Marlan Investments LLC
	B W Drywall	Marshall Mechanical Insulation, LLC
	B.A.H Concepts	Martini Builders LLC
	BadDad Barbell	Maxwell Real Estate LLC
	Bagnall Industries LLC	McKnight Apartments, LLC
	Bailey & Sons Tree Service, LLC	Mean Green Lawn Care LLC
	Barkhaven Grooming Salon	Medical Management International Inc.
	Basic Lean Inc.	Metcalfe Fireworks LLC
	Bayes Electric LLC	Midway Air BNB
	Bedford Residential Appraisal Service LLC	Mighty Mow Lawn Care LLC
	Big Blue Irrigation, LLC	Mike & Jo's Collectables
	Bill's Fish	Millennial Handyman Services LLC
	Blue Cord Handyman Services LLC	Miracle Home Improvement
	Bluegrass Bargain Barn	Miracle Home Improvement
	Bluegrass Blocks & Tack LLC	Monroe Construction Company
	Bluegrass Equestrian Services LLC	Monroe Lawn Care & Outdoor Design, LLC
	Bluegrass Integrity, LLC	Moody Dozing
	Bluegrass Knights LLC	Nailed It Salon, Inc.

Bluegrass Motorcycle Tours LLC	Nature's Essentials LLC
Bluegrass Professional Properties LLC	Neal's Electric
Bluegrass Quality Flooring LLC	Neel Products, LLC
Bluegrass Roofing & General Contracting, LLC	Nobrac Laboratories, LLC
Boonesboro Gardens Inc	Notable Properties LLC
Brothers Landscaping LLC	NuForm Materials, LLC
Brothers Towing	Offutt Reality, Inc.
Brownstone Apartments	Olsonbuilt LLC
Brumagen Construction	Onsite Mobile Services, LLS
Brumback Equipment	Optum Services Inc.
Bucky's Armaments and Munitions, LLC	Our Beautiful World, LLC
Bunkhouse Designs	Overalls, Inc.
BW Auto Wholesale LLC	Parrish Tutoring Services
C & E Homes	Pasiv Duty LLC
C K Tactical Security, Inc.	Pathway Contracting, LLC
C S C Staffing Inc.	Patty Stovel Training Inc.
Cain Construction & Remodeling Inc	Paul Towing Service
Carter Welding	Payne & Prater Contracting Inc
Cascade Engineering	Pegasus Construction, Bluegrass LLC
Catfish Cay LLC	Perkins & Perkins LLC
Central Kentucky Scales, Inc.	Persley's Small Home Day Care
Central Kentucky Seamless Gutters LLC	Phillip's Tractor Repair
Central KY Real Estate	Photos by Brady
Chad Montgomery Realtor LLC	Picture Perfect Lawn/Landscaping LLC
Chase Moody Carpentry	Pinnacle Excavate & Demo LLC
Cherry Creek Properties LLC	Platinum Supply Pro, LLC
Collins Properties LLC	Plunketts LLC
Comfort Solutions Mechanical	Posh Creations
Community Health Consulting Group LLC	R F Home Solutions
Computer Repair Service	Re Brand U LLC
Country Boy Custom Tool & Die	Real Dreams LLC
County Embroidery	Reed Utilities
Crestlawn Memorial Cemetery LLC	Reliant Careers LLC
Cross Diesel Repair	Rob Bridges Illustration & Design
Crosthwaite Bobcat Service	Robinson Lawn Care Service
Cumberland Lake Vacation Rentals LLC	Rosebud's Boutique
Cumex Publishing Inc.	Ross Resource Group LLC
D C Electric, Inc.	Ruth Trucking, Inc.
D J M Logistics, Inc.	S & S Excavating, LLC
D. D. Rodgers, Inc.	S H F Cabin Rental
Daken Holdings LLC	S Marshall & Associates, LLC
Danny Lay Painting	Safe & Sound Parks and Recreation
Dave's Blazin' BBQ	Second Chance Auto Sales, LLC
Debben Properties LLC	Seek and Find Properties LLC
Do It Right Property Management	Semper Fi Excavating
Elite Equestrian Supply LLC	Sewells Heating & Air Conditioning Repair LLC
Endow Audio LLC	Shornick Lawn Care
Energy Consultations of KY, LLC	Shutterfly Lifetouch, LLC
Erie Indemnity Company	Silverlo Enterprises LLC

Everyday Gourmet	Simply Sweet Boutique
Exceptional Travel LLC	Sisu Properties LLC
F & S Home Improvement	Site Supply, Inc.
Fearfully Wonderfully Made, LLC	Slim's Towing Inc.
FENEX Consulting LLC	Smith Brothers Masonry
Fine Art by Kathy Wood, LLC	Smith Plumbing, LLC
Firefly Ridge, LLC	Smitson Indoor Air, LLC
First Impressions Lawn & Landscaping	Southern Class Event Planning
Flying Dutchman Properties LLC	Southern Style Lawns
Focus Properties LLC	Spooky Hollow Land Co., Inc.
Fox Partners LLC	Spooky Hollow Racing, Inc.
Frazier Lawn and Landscaping	Springwood, LLC
G & L Tools & Machine LLC	Steel Magnolia Fashions
G&L Construction Ltd. Co.	Stone Jack Bakers, LLC
Gafcon, Inc.	Strunk Real Estate LLC
Gant Home Improvement	Sugar Bunny Woods LLC
Georgetown Renovations, LLC	Sunset Cove Crafts
Gibson & Worthington Properties, LLC	Supernus Pharmaceuticals Inc.
Gibson Painting	T M Industrial Contracting LLC
Gina's Cleaning Service	T Persley Jr.'s Handyman Services
Glenn Builders	T's Crafty Treasures
Goldens Pub and Deli LLC	Tacketts Home Sweet Home
Goodman Photography	Taulbee Fencing
Graves Custom Contracting	Teamhouse Studio
Greenwell Lawn Care	Tessie Mae's Grill LLC
Hancock Cleaning	The Cletis Shoppe
Helping Hand Services	The Good Omens Shop
Hill Top Leather Shop	The Pink Petals Boutique
Hillside Performance	The Rig Doctor LLC
Hollingsworth & Associates	Thoroughbred Aviation Maintenance, Inc.
Homeplace Veterinary Services Inc.	Thoroughbred Mowing & Ag Services
Honey Dew Properties, LLC	Tinhalla, Inc.
Hunt Ahead LLP	Triple Grove Designs, LLC
Hupp Sales Agency, LLC	Type A Stitches
HZTOLLIVER LLC	United TN Holdings
Indian Summer Productions	Vest Fabrication & Certified Welding, LLC
Intention Health and Wellness, PLLC	Walker Decorating Service
Invigorative Technology, LLC	Walling Mobile Service, LLC
Jacobson Picture Framing	Walnut Ridge General Store
Janet's Junk	Ward Repair Service
John Hymer Feed Company LLC	We're Digging It
Jones Mobile Oil Change	What's In Your Closet?
K B Technology, LLC	Wicked Stitches Embroidery LLC
Kane's Lawn Service	Woodhaven Custom Finishing, LLC
Karen Butler Coaching	Woods Creations
Kemmi Dressage, LLC	Woodtreker Designs
Kentucky Advanced Forge, LLC	Worick Land Holdings LLC
Kentucky Greanleaf	Xtreme Fabrication and Welding
Kentucky Surveillance Solutions	Yo! Productions
Kentucky Traditional Leather	You Neeks, LLC

	Kentucky Wildlife Center, Inc.	Yours Truly Designs
	Kentucky Women's Basketball Officiating, LLC	
Farms, Vineyards & Livestock	B & K Livestock	J B J Farms, LLC
	Barton Brothers Grain Co	Jenna Lee Farm
	Bill's Live Fish Farm	Long Road Farm North, LLC
	Bluegrass Assets Farm	Margaux Farm
	Bluegrass Hosta Farm, LLC	Milan Farm LLC
	Caney Bar Farm	Millers Run Farm
	Cattleya Farm LLC	Nardelli Cattle Company, LP
	Cinwood Farm	Newton Farm, Inc.
	Confab Farms LLC	Peepers Pond Farm
	Deer Creek Farm	Pomona Farm LLC
	Devers Farm	Pond Creek Farm
	Double Deuce Farms, LLC	Purplewood Farm LLC
	E R Elkhorn Farm, LLC	Robert L Conley Livestock, LLC
	Elmwood Stock Farm II LLC	S & J Farm Enterprises, LLC
	Elmwood Stock Farm, LLC	Savanna Farm LLC
	Evans Orchard & Cider Mill, LLC	Shawnee Run Farm & Greenhouse
	FPC Farm	Steden Farm Alpacas
	Glass Farms	Summer Starts Here Farm
	Glen & Julie Farms LLC	The Nut Farm LLC
	Grassland Too Farm	Thompson Hill Farm LLC
Gray Arbor Farm LLC	Tollgate Hay & Straw LLC	
Green and Green Farm	Trinity Ridge Farm	
Hallstead Farms and Meats	Triple J Farm	
Hay Commander LLC	White Oak Ridge Farm	
Haywood Farms LLC	Wise Family Farm LLC	
Hill Top Hogs	Wombat Farm	
Public Buildings	Scott County Fire Station #4	Scott County Fire Station #2
	Georgetown Regional Airport	
Equine Operations & Facilities	Summer Wind Equine, LLC	Bailey Equine Management Co.
	Old Friends Inc	Rosie's Ponies LLC
	Moran Racing Stables	Morera Breeding & Racing LLC
	Thoroughbred Amusement	Heritage Horse Farm, LLC
	Avalon at Cherry Knoll Farm	Brass Lantern Farm
	Nydin Farms Equine Rehabilitation Center	Whispering Woods Riding Stables
	Riders Up Wheels A' Rolling	Reservoir Horse Trail Camp
	Heronwood Farm, LLC	Miacomet Farm
	Kentuckiana Farms	Peninsula Farm
	KatieRich Farms, LLC	Little Hooves Ranch LLC
Maplecrest Farm of Lexington	Diamond Creek Farm	

Budget Narrative and Detailed Budget Justification

Budget Summary

Scott County, Kentucky (the County) and Spectrum Mid-America, LLC (dba Charter Communications) are seeking [REDACTED] in grant funds from The National Telecommunication and Information Administration’s Broadband Infrastructure program to support Scott County/Charter Spectrum Broadband Expansion Project as detailed in the attached statement of work. Charter will provide a cash match [REDACTED] with a value totaling [REDACTED]. The total value of the proposed project is [REDACTED]. The proposed project encompasses all unserved areas of the County and will build fiber to every unserved household in the County. Details on the scope of work can be found in the project narrative.

Budget Categories

Table 1 provides a summary of all expenses, corresponding with the budget items outlined by SF424C.

Table 1: SF424C Budget Items

COST CLASSIFICATION	Federal Portion	Match portion	Total
1. Administrative and legal expenses	\$ [REDACTED]	\$ -	\$ [REDACTED]
2. Land, structures, rights-of-way, appraisals, etc.	\$ -	\$ -	\$ -
3. Relocation expenses and payments	\$ -	\$ -	\$ -
4. Architectural and engineering fees	\$ -	\$ -	\$ -
5. Other architectural and engineering fees	\$ -	\$ [REDACTED]	\$ [REDACTED]
6. Project inspection fees	\$ -	\$ -	\$ -
7. Site work	\$ -	\$ -	\$ -
8. Demolition and removal	\$ -	\$ -	\$ -
9. Construction	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
10. Equipment	\$ -	\$ -	\$ -
11. Miscellaneous	\$ -	\$ -	\$ -
12. SUBTOTAL (sum of lines 1-11)	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
13. Contingencies			\$ -
14. SUBTOTAL	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
15. Project (program) income	\$ -	\$ -	\$ -
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]

Administrative & Legal Expenses

Budgeted	Federal Allocation	Matching Share
[REDACTED]	[REDACTED]	\$ --

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In the event a 3rd party requests this document, please contact Mike Zarrilli at (314) 394-9842

or Michael.Zarrilli@charter.com

The administrative and legal expense of \$61,600 will be incurred as necessary effort for County oversight and administrative management of the proposed project. The county will engage a suitable contractor to do this work at a rate of \$50.00 per hour. The project team estimate the oversight effort will require 932.00 hours over the course of the two years necessary for entire project completion. Grant application preparation expenses of \$15,000 are included in this budget category. This is a fixed fee service charged by CTC Technology & Energy. Details of these expenses are itemized in Table 2 below:

Table 2: Administrative and Legal Expense Items

Item	Unit Cost	Units	Total	Role	Notes
Grant Preparation Services	\$ 15,000.00	1.00	\$ 15,000.00	Administrative	Preparation of NTIA BIP grant application materials.
Grant Administration Services	\$ 50.00	932.00	\$ 46,600.00	Contractor	Quarterly reporting: 10 hours per quarter for 8 quarters and 20 hours for final reporting = \$50 * 100 hours = \$5,000. General project oversight: 8 hours per week for 2 years (requested extension in application materials) = 8 * 104 = 832 hours * \$50/hr = \$41,600.
Total			\$ 61,600.00		

Land, Structures, Rights-of-Way, Appraisals, etc.

Budgeted	Federal Allocation	Matching Share
\$ --	\$ -	\$ --

The project does not require funding for the cost of land, structures, or costs relating Right(s)-of-Way access. Charter typically acquires access to the right of way through cable franchise agreements in its capacity as a cable company, and therefore does not require separate funding to obtain access to the right of way to offer broadband services. Should the expense be required for any reason, Charter will pay for the expense out of pocket.

Relocation Expenses & Payments

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

Relocation expenses and payments are not necessary for the proposed project and will not affect total project costs.

Architectural & Engineering Fees

Budgeted	Federal Allocation	Matching Share
\$	\$ --	\$

Under Charter’s default workflow, direct architectural and engineering fees are not classed as distinct from the Construction budget. Charter does anticipate certain direct costs related to survey, design, permitting, and licensing, which it has classified under “Other Architectural and Engineering Fees” below. Charter is not seeking reimbursement of its indirect costs in association with this application.

Other Architectural & Engineering Fees

Budgeted	Federal Allocation	Matching Share
██████████	\$ --	██████████

Charter anticipates direct costs for permitting (both for municipal permits as well as permits from pole owners) as well as direct costs to perform surveys and design the proposed network facilities.

Permit costs include underground construction permits, pole permits, make ready engineering costs as well as miscellaneous permits (e.g. railroad crossings, bridge attachments and highway crossings). Underground permits typically range from \$15-\$85 per permit while pole permit and make ready can range from \$35-\$150 per pole. Miscellaneous permits can be more costly and typically exceed \$10K per permit. For this budget Charter is applying national estimates, based upon historical experience, of approximately [BEGIN CONFIDENTIAL INFORMATION] ██████████ [END CONFIDENTIAL INFORMATION] per mile, respectively, for these cost elements for aerial construction and [BEGIN CONFIDENTIAL INFORMATION] ██████████ [END CONFIDENTIAL INFORMATION], per mile, respectively, for underground construction. Underground construction also involves additional estimated per mile costs of [BEGIN CONFIDENTIAL INFORMATION] ██████████ [END CONFIDENTIAL INFORMATION] for restoration. Charter has applied these rates to its projected aerial vs. underground estimates above.

Table 3: Other Architectural and Engineering Costs

Item	Unit Cost	Units (miles)	Total	Notes
Permitting	\$ ██████████	██████████	\$ ██████████ ⁰	Permits costs account for underground construction permits at \$15-\$85 per permit, pole permits and make ready engineering costs at \$35-\$150 per pole. Estimated for 412.7 route miles at 95% aerial instillation, 5% underground instillation.
Survey and Design	\$ ██████████	██████████	\$ ██████████	Estimated for 412.7 route miles, based on Charter’s historical survey and design costs.
Total			\$ ██████████	

Project Inspection Fees

Budgeted	Federal Allocation	Matching Share
\$ -	\$ -	\$ -

Project inspection fees are not necessary for the proposed project and will not affect total project costs. Quality control and assurance, and construction project management services are included in the construction Budget.

Site Work

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

The project does not require any funding for site work. Charter anticipates costs associated with make-ready activities in advance of attaching Charter’s broadband facilities to utility poles; those costs have been classified as a separate cost element within the “Construction” category consistent with guidance from NTIA Staff, and are broken out and described in greater detail below.

Demolition & Removal

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

The project does not require any demolition and removal services. To the extent the project is anticipated to require some costs relating to the removal and replacement of existing utility poles in order to accommodate new broadband attachments, those costs are included within the estimate for make-ready costs as an element of the Construction budget below.

[BEGIN CONFIDENTIAL INFORMATION]

Construction

Budgeted	Federal Allocation	Matching Share
██████████	██████████	██████████

[END CONFIDENTIAL INFORMATION]

Construction cost estimates for the project are based on Charter projects construction costs for last-mile broadband deployment projects (such as the one at issue in this application) by estimating the number of miles of fiber that will need to be deployed and applying cost-per-mile estimates for each individual component of the construction costs of a fiber network, using Charter’s contracts and rate card data, which include applicable permitting and licensing fees, negotiated rates with Charter’s existing construction and make-ready contractors, as well as the expected pricing for the necessary materials. The cost estimates in Table 4 use the same construction cost estimation techniques that Charter uses for its projects that are funded with private capital, in the absence of public support. Charter’s construction cost estimation techniques are performed at massive scale with hundreds of thousands of new passings designed and constructed annually, and Charter has a high degree of confidence in the reliability of those projections to project the costs of new projects.

For this Project, Charter’s projected construction costs, broken out into individual components on a per-mile and a project aggregate basis, are set forth in the following table.

[BEGIN CONFIDENTIAL INFORMATION]

Table 4: Construction Expense Details

Item	Per Mile Cost	Units/ Miles	Total	Notes
Fiber Cable	██████████	██████████	██████████	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for ██████████ route miles with ██████████% aerial, ██████████% underground construction.

Fiber Tap/Hardware	████	██	████████	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for route miles with █████ aerial, █████ underground construction.
Hardware & Connectors	████	██	████████	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for route miles with █████ aerial, █████ underground construction.
Power Supply	██	██	████████	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for route miles with █████ aerial, █████ underground construction.
Strand	████	████	████████	Estimated for █████ aerial route miles.
Conduit, Pedastals, and Vaults	████	██	████████	Estimated for █████ underground route miles.
Construction Labor	████	██	████████	Estimated for █████ route miles. Rate derived from Charter's labor rates in Kentucky adjusted for █████ aerial, █████ underground installation.
Make Ready	████	██	████████	Estimated for █████ route miles with █████ aerial installation.

NODE OLT 10G EPON
REMOTE
9504NW/DPOE

[REDACTED] [REDACTED]

Node Optical Line Terminal quantities estimated based upon Charter's historic experience with similar rural construction projects.

XFP 10/10 PR30
EPONINDUSTRIAL
TEMP

[REDACTED] [REDACTED]

Optical Transmitter quantities estimated based upon Charter's historic experience with similar rural construction projects.

MUX/DMUX 4CH 20-
23 DWDMUPG EXP 2
SCAPC

[REDACTED] [REDACTED]

Mux/Dmux (multiplexer/demultiplexer) quantities estimated based upon Charter's historic experience with similar rural construction projects.

Total

[REDACTED]

Total construction costs for this project are estimated to be [REDACTED]. The applicants will cover [REDACTED] and in turn are requesting [REDACTED] in funding from the Broadband Infrastructure Program. As noted above and in other sections of this Budget Narrative, Charter will absorb any additional construction costs.

The components of this budget category estimated for [REDACTED] route miles are as follows: fiber cable totaling [REDACTED] at [REDACTED] per mile, fiber taps and related hardware totaling [REDACTED] at [REDACTED] per mile, hardware and connectors totaling [REDACTED] at [REDACTED] per mile, and power supplies totaling [REDACTED] at [REDACTED] per mile.

Additionally, this category includes stand conduits, pedestals, and vaults. To support the estimated [REDACTED] miles of aerial construction, the total cost for these items is estimated to be [REDACTED] at [REDACTED] per mile. For the estimated [REDACTED] route miles requiring underground installation, the cost of these items is projected to total [REDACTED] per mile.

Construction labor costs for all [REDACTED] route miles is estimated to total [REDACTED] per mile. Make-ready costs are projected to total [REDACTED] per mile.

This category also includes network equipment. Charter estimates requiring [REDACTED] optical line terminals to support the network, each valued at [REDACTED] for a total cost of [REDACTED]. Charter anticipates requiring [REDACTED] optical transmitters at a cost of [REDACTED] per unit for a total cost of [REDACTED]. The number of multiplexers and demultiplexers the network will require is estimated to be 103. Each unit will cost [REDACTED] for a total of [REDACTED].

[END CONFIDENTIAL INFORMATION]

The individual components of the projected budget were derived as follows:

Estimated Total Number of Fiber Miles:

To project the number of fiber miles that will need be deployed, Charter uses geospatial desktop survey software to ascertain locations and optimal fiber network routing within the Project Area. For this specific Project, based upon the need to deploy last-mile fiber to the known homes and business locations in the Project Area and the projected routing that would be required for those connections, as well as to connect the network to Charter’s existing [BEGIN CONFIDENTIAL INFORMATION] [REDACTED] [END CONFIDENTIAL INFORMATION] Charter estimates that [REDACTED] miles of new fiber deployment will be required.

Estimated Breakdown Between Aerial and Underground Miles:

To estimate the likely extent of aerial and underground construction within the aggregate fiber mile projection, Charter applies historical assumptions based upon past experience with rural projects in the state in which each project is conducted. In Charter’s experience with rural projects in Kentucky, it is typical for approximately [BEGIN CONFIDENTIAL INFORMATION] [REDACTED] [END CONFIDENTIAL INFORMATION] of fiber deployment in rural areas to be aerial and approximately [BEGIN CONFIDENTIAL INFORMATION] [REDACTED] [END CONFIDENTIAL INFORMATION] of fiber deployment in rural areas to require undergrounding. Charter has applied that projection, based upon historical experience, to the estimated project budget here.

Contractor labor rates:

Contractor labor rates for construction work vary by market and by Charter’s existing rate cards and vendor relationships. The cost-per-mile construction estimate for the Project reflected in the table above is derived by applying Charter’s labor rates for aerial and underground construction work in Kentucky to the projected aerial v. underground estimates above.

Construction material costs:

This cost component represents the costs of 1) backbone fiber, 2) distribution plant fiber (including secondary distribution cabinets, optical node unit, fiber, and conduits), and 3) vault pedestals and splice enclosures. Charter’s construction material costs are based upon arrangements with national suppliers, and are therefore not materially expected to vary from project area to project area. The cost-per-mile construction estimate for the Project is derived by applying Charter’s national supplier rates for aerial and underground construction materials, respectively, to the projected aerial v. underground estimates above.

Make-ready Costs:

Based upon its experience with a large recent rural construction project, Charter’s budget assumes make-ready and pole replacement costs of [BEGIN CONFIDENTIAL INFORMATION] [REDACTED] [END CONFIDENTIAL INFORMATION] per mile for aerial construction.

Network Equipment Costs:

This cost component represents the costs associated with node optical line terminals. Charter’s construction equipment costs are based upon arrangements with national suppliers, and are therefore not materially expected to vary from project area to project area. The estimated quantities for each mile for node OLTs, optical transmitters, and multiplexer/demultiplexers are based upon Charter’s historic experience with rural projects of a similar type.

Certain Costs Excluded:

Charter notes that its Project budget includes only the direct labor, material, and licensing and permitting costs necessary to design and construct the last-mile FTTH EPON network. It does not include labor costs of Charter’s internal employees to supervise and manage the Project. The Project Budget also does not include the costs of installations (i.e., drops) to individual customer locations; Charter does not classify these costs as “Construction” costs and will absorb these costs itself, as offset by the installation fees set forth in the Project Narrative. It also does not include indirect or overhead costs that are not specifically measureable and cost-coded to the Project in Charter’s project management and accounting systems. Charter is proposing to absorb these costs itself as part of its voluntary commitment. To the extent quantification of these costs is necessary for NTIA to evaluate Charter’s Proposal, Charter is willing to supplement its application upon request.

Equipment

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

The project team does not anticipate the need to purchase equipment for the purpose of performing construction tasks. All materials and electronics required to install and operate the network are included in the Construction budget.

Miscellaneous

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

The proposal does not include any miscellaneous expense requests.

Contingencies

Budgeted	Federal Allocation	Matching Share
\$	\$	\$

Charter will absorb any additional costs associated with construction of the covered project. As such, no formal contingency percentage has been deemed necessary to be defined at this stage.

Project (Program) Income

Budgeted	Federal Allocation	Matching Share
\$ --	\$ --	\$ --

We do not anticipate any project or program income for the proposed project relevant to this funding request. For details on projected income as a result of the project, but outside of the period of performance, please see pro forma projections attached to the application materials and reference the project sustainability section of the main application narrative.

Charter will not seek to recover indirect costs associated with budget outlays related to this project.

Forecasted Cash Needs

		Forecasted Cash Needs	
		Total	Year 1
Non-Federal (Cash)	\$	[REDACTED]	
Federal	\$	[REDACTED]	
Total	\$	[REDACTED]	

						Forecasted Cash Needs (Year 1)				
		Total	Q1	Q2	Q3	Q4				
Non-Federal (Cash)	\$	\$	\$	\$	\$	\$	[REDACTED]			
Federal							[REDACTED]			
Total							[REDACTED]			

COST CLASSIFICATION	Federal Portion	Match portion	Total
1. Administrative and legal expenses	\$ [REDACTED]	\$ -	\$ [REDACTED]
4. Architectural and engineering fees	\$ -	\$ -	\$ -
5. Other architectural and engineering fees	\$ -	\$ [REDACTED]	\$ [REDACTED]
9. Construction	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
10. Equipment	\$ -	\$ -	\$ -
12. SUBTOTAL	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
13. Contingencies	\$ -	\$ -	\$ -
14. SUBTOTAL	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]
16. TOTAL PROJECT COSTS	\$ [REDACTED]	\$ [REDACTED]	\$ [REDACTED]

Cost Share Percentages

Item	Unit Cost	Units	Total	Role	Notes
1. Administrative and legal expenses					
Grant Preparation Services	\$ 15,000.00	1.00	\$ 15,000.00	Administrative	Preparation of NTIA BIP grant application materials.
Grant Administration Services	\$ 50.00	932.00	\$ 46,600.00	Contractor	Quarterly reporting: 10 hours per quarter for 8 quarters and 20 hours for final reporting = \$50 * 100 hours = \$5,000. General project oversight: 8 hours per week for 2 years (requested extension in application materials) = 8 * 104 = 832 hours * \$50/hr = \$41,600.
Total			\$ 61,600.00		

5. Other architectural and engineering fees

Item	Per Unit Cost	Units (miles)	Total	Type	Notes
Permitting	\$ [REDACTED]	[REDACTED]	\$ [REDACTED]	Other architectural and engineering fees	Permits costs account for underground construction permits at [REDACTED] per permit, pole permits and make ready engineering costs at [REDACTED] per pole. Estimated for [REDACTED] route miles at [REDACTED] aerial instillation [REDACTED] underground instillation.
Survey and Design	\$ [REDACTED]	[REDACTED]	\$ [REDACTED]	Other architectural and engineering fees	Estimated for [REDACTED] route miles, based on Charter's historical survey and design costs.
Total			\$ [REDACTED]		

9. Construction

Item	Per Mile Cost	Units/Miles	Total	Type	Notes
Fiber Cable	[REDACTED]	[REDACTED]	[REDACTED]	Materials	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for [REDACTED] route miles with [REDACTED] % aerial, [REDACTED] underground construction.
Fiber Tap/Hardware	[REDACTED]	[REDACTED]	[REDACTED]	Materials	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for [REDACTED] route miles with [REDACTED] % aerial, [REDACTED] underground construction.
Hardware & Connectors	[REDACTED]	[REDACTED]	[REDACTED]	Materials	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for [REDACTED] route miles with [REDACTED] % aerial, [REDACTED] underground construction.
Power Supply	[REDACTED]	[REDACTED]	[REDACTED]	Materials	Construction material costs are based on Charter's arrangements with national suppliers and therefore will not vary between project areas. Estimated for [REDACTED] route miles with [REDACTED] % aerial, [REDACTED] underground construction.



Ms. Evelyn Remaley
Acting Assistant Secretary of Commerce for Communications and Information
National Telecommunication and Information Administration
1401 Constitution Avenue, NW
Washington, DC 20230

Re: Letter of Commitment to Partner with Scott County, KY in Applying for Grant under the National Telecommunications and Information Administration's ("NTIA") Broadband Infrastructure Program

Dear Acting Assistant Secretary Remaley:

I am writing on behalf of Spectrum Mid-America, LLC (hereinafter "Charter") to express Charter's commitment to partner with Scott County, Kentucky in connection with the National Telecommunications and Information Administration's Broadband Infrastructure Program. I am authorized to offer this commitment on the company's behalf.

If NTIA issues an award under the requested grant set forth in the accompanying application, Charter commits to partnering with Scott County, Kentucky on the proposed project, described in the application, to bring Charter's high-speed broadband internet access services to areas identified as in need of such services as set forth in the application. As set forth in greater detail in the application, Charter would assume responsibility for managing all aspects of the construction effort, including project design, data collection, securing permits, completing a construction plan, and overseeing the construction and eventual operation of the proposed broadband network. Additionally, Charter would contribute its own funding and personnel to the project as described in the application and accompanying proposed budget, and would also oversee maintenance of the system, customer intake, and service delivery once the project is completed. Charter would partner with Scott County, Kentucky, as needed, to coordinate the verification of addresses served by the project and elimination of any regulatory barriers.

As set forth in the application, Charter commits to contribute a cash match of \$15,303,000 towards the project, as well as to absorb (in addition to this cash match) certain other project-related costs for which the Covered Partnership is not seeking federal funding. If the application is granted, Charter will fund the cash match and other obligations either through its free cash flow or its borrowing capacity. Charter has more than adequate free cash flow to meet all project obligations, and has significant borrowing capacity through its credit facility as set forth in the application.

More details can be found in the accompanying application. We look forward to working with you on this endeavor, and would be happy to further discuss if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Thomas E. Adams".

Thomas E. Adams
Executive Vice President, Field Operations
Charter Communications

**Scott County Fiscal Court
101 East Main St Suite 210
Georgetown Ky 40324**

August 13, 2021

VIA EMAIL

Ben Usellis
Sr Manager Gov Affairs
Charter Spectrum
4701 Commerce Crossing Dr
Louisville KY 40229

**RE: Scott County Fiscal Courts Letter of Commitment to Charter Spectrum
Concerning the Scott County Fiscal Court Application for Grant Funds
under NTIA's Broadband Infrastructure Program**

Dear Mr. Usellis:

As you know, the Scott County Fiscal Court strongly encourages the deployment of high-speed broadband throughout its rural and unserved or underserved territories. To further such deployment, Scott County is preparing an application for grant funds under the National Telecommunications and Information Administration ("NTIA") Broadband Infrastructure Program ("Program").¹ In this application, the Scott County Fiscal Court will be seeking grant funds that will be used to deploy high-speed fiber-to-the-home/premises ("FTTH/P") broadband network to addresses within certain unserved eligible service areas (i.e., areas with less than 25/3 Mbps down/up) within Scott County that, among other things, exclude areas subject to funding from other federal or state sources, such as from the FCC's Rural Digital Opportunity Fund ("RDOF") and Connect America Fund ("CAF Phase II") (collectively, "Project" or Proposed Funding Service Area ("PFSA"), as applicable). will be partnering with Charter Spectrum, a FTTH/P broadband services provider, that will deploy its FTTH/P network to the PFSA if NTIA awards the grant under this Program to the Scott County Fiscal Court.

The importance of the Scott County Fiscal Court's application to this grant Program and associated partnership with Charter Spectrum cannot be overstated. County residents and businesses within the PFSA lack Internet services that meet basic standards, which severely hampers their lifestyle and puts them at a significant disadvantage relative to those that have such services. Given the geography and population of Scott County in the PFSA, such high-speed Internet services have not been made available given the financial return on a broadband expansion

¹ See <https://www.ntia.doc.gov/press-release/2021/commerce-department-s-ntia-announces-288-million-funding-available-states-build>. See also <https://www.grants.gov/web/grants/view-opportunity.html?oppId=333684> (Notice of Funding Opportunity ("NOFO")).

is insufficient to justify, without state and federal funding assistance, such expansion in the area for many wired and wireless providers.

As a result, Scott County has heard the frustrations from parents in the area who cannot work from home and whose children cannot do their homework or take courses and tests from home because they lack the needed Internet services. Frustrations are also heard from those in the local business community that know they are at a disadvantage because of the lack of broadband and associated technologies not available to them. The Scott County Fiscal Court has also become more aware of the impact that a lack of broadband has as new technologies for education, agriculture, public safety, healthcare, etc. are made available in areas that have it.

For these reasons, the Scott County Fiscal Court wishes to have Charter Spectrum's FTTH/P broadband network deployed to addresses within the PFSA and Charter Spectrum's high-speed broadband Internet access services (up to Gigabit speed, or greater) available within such areas of our community. Accordingly, the County has selected Charter Spectrum as Scott County's partner for this grant application for this Project under this Program.

As required by the NOFO for this grant Program, the Scott County Fiscal Court hereby provides this Letter of Commitment for this Project. As an initial matter, the Scott County Fiscal Court commits to preparing and submitting the application to the Program for this Project with Charter Spectrum's assistance, along with attending to post-application submission questions, due diligence and administrative matters. Charter Spectrum in accordance with the cost sharing or matching provisions in the Program's NOFO. *See, e.g.*, NOFO Section L and III.B. Moreover, if NTIA awards Scott County its requested grant under this Program, Scott County commits to the following:

- Working and coordinating closely with Charter Spectrum on this Project to ensure that Charter Spectrum successfully deploys its FTTH/P broadband network to every unserved address within the PFSA and offers its high-speed broadband Internet access services (up to Gigabit speed, or greater) to the addresses within the PFSA;
- Addressing and processing the permitting requirements along with attending to other administrative, supportive, and post-award matters, etc. (collectively, "Requirements"), on a coordinated and expedited fashion, such that Charter Spectrum's commencement and deployment of the Project is not delayed and such Requirements do not hinder Charter Spectrum's ability to complete Project within the limited one (1)-year period of Charter Spectrum's receipt of grant funds, unless such period is otherwise extended by the Program's Grants Officer per the terms of the NOFO;
- Promptly disbursing to Charter Spectrum all grant funds NTIA awards to Scott County Fiscal Court under the Program, so that Charter Spectrum] can promptly commence work upon the Scott County Fiscal Court's receipt of such funds;
- Ensuring compliance with the Program's grant requirements during the build out of the Project and tracking buildout progress as well as ensuring post-buildout grant-related requirements are met.

In closing, the Scott County Fiscal Court would like to emphasize its enthusiasm to partner with Charter Spectrum in the grant application under this Program. If NTIA awards the Scott County Fiscal Court's requested grant under this Program, Scott County firmly believes the availability of such high-speed broadband services will significantly benefit the residences and businesses within the PFSA, which in turn will spur economic growth and development within Scott County.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'JPC', written over a horizontal line.

Joe Pat Covington
Judge Executive
Scott County Fiscal Court

Network Diagrams and System Designs

[BEGIN CONFIDENTIAL INFORMATION].

Figure 1: Charter's FTTP EPON Architecture with Connectivity to the Charter Backbone

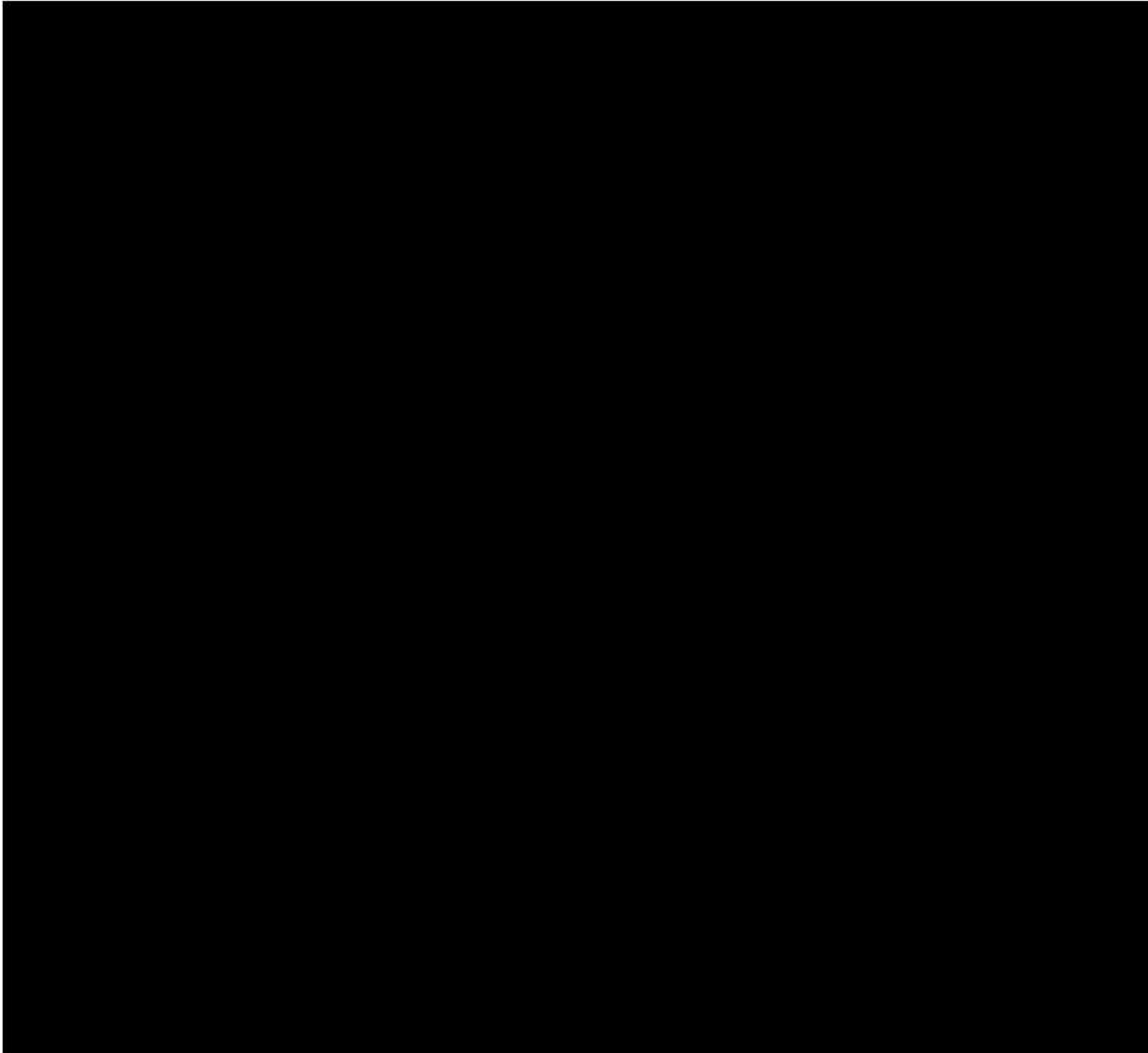


Figure 2: FTTP EPON Last Mile Architecture

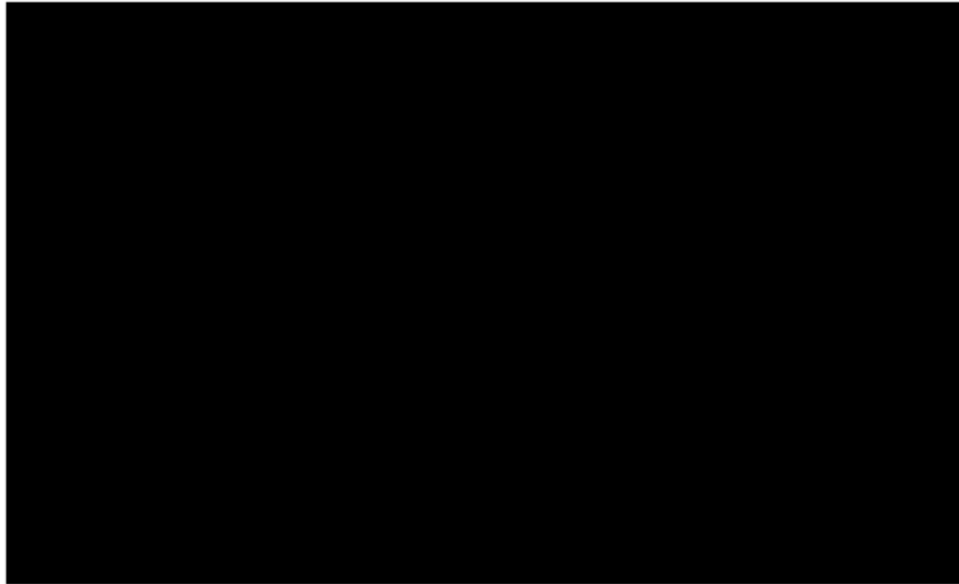


Figure 3: Charter Network Tiers (Pre-Existing Network to Which Project Will Be Connected)



[END CONFIDENTIAL INFORMATION].