Public Service Commission of Wisconsin
RECEIVED: 03/17/2022 1:49:38 PM

BROADBAND EXPANSION GRANT APPLICATION
For Fiscal Year 2022

Primary Applicant (Name and Address):	Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx. Refer to section 2.3 for detailed instructions. Applications are due and MUST be uploaded to ERF no later than: **March 17, 2022** at 4:00pm (16:00) Central Time. **Late applications will not be accepted.**
Spectrum Mid-America, LLC and its subsidiary Spectrum Mid-America WI-FY2022, LLC, each managed by Charter Communications, Inc. ("Spectrum" or "Charter") **1320 N Dr. Martin Luther King Jr. Drive** **Milwaukee, WI 53212** **Attn: Celeste Flynn** **414-277-4193** **Celeste.flynn@charter.com**	Contact for further information: PSCStatebroadbandoffice@wisconsin.gov
	Date: **December 1, 2021**

The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.

Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.

Name of Authorized Representative (Type or Print)	Title:	Phone: **(608) 467-9202**
Joseph J. Sherer II	**Vice President, Regional Engineering of Charter Communications, Inc., the Manager of the Applicants**	
Signature of Authorized Representative Joseph J. Sherer II	Date 3/17/2022	

SUMMARY OF GRANT APPLICATION

Primary Applicant Name **Spectrum Mid-America, LLC and its subsidiary Spectrum Mid-America WI-FY2022, LLC, each managed by Charter Communications, Inc.** ("Spectrum" or "Charter")	Amount of Broadband Grant Request (round to nearest dollar) **$2,699,894**
Federal Employer Identification No. **Spectrum Mid-America, LLC: 43-1857213** **Spectrum Mid-America WI-FY2022, LLC: 88-1251860**	Amount of Matching Funds Pledged (round to nearest dollar) **$3,070,296 Charter** **$250,000 Jefferson County** **Total: $3,320,296**
Contact Name and Title **Celeste Flynn, Director, Govt. Affairs**	Total Cost of Proposed Project (round to nearest dollar) **$6,020,190**
Telephone Number **(414)277-4193**	Project Name **BB App Spectrum, Jefferson C County**
E-mail Address(es) **celeste.flynn@charter.com**	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) **FTTP EPON**
Grant Manager, if different than Primary Applicant **N/A**	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) **Last-Mile**
Grant Manager Contact Name	Grant Manager Email Address and Telephone Number
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations **Public Partner Name: Jefferson County** **Attn: Ben Wehmeier, County Administrator** **Address: 311 S Center Ave, Rm 111, Jefferson, WI 53549** **FEIN Number: 81 - 3362283**	
Brief Project Description (2 sentences) **Charter requests a grant to support the construction of a new last-mile fiber-to-the-premises ("FTTP") via Ethernet passive optical network ("FTTP EPON" or "EPON") to provide high-speed broadband access to approximately 937 underserved locations in the Towns of Slabtown, Oak Hill, Helen, Cold Spring, Hebron, Jefferson in Jefferson County . Charter does not request any funding to support its existing network infrastructure.**	
Maximum Proposed Download Transmission Speed **1000 Mbps (Scalable to higher Gig speeds in the future)**	Maximum Proposed Upload Transmission Speed **500 Mbps (Scalable to 1000 Mbps / 1 Gig or higher in the future)**

Minimum Proposed Download Speed to Customer Location **200 Mbps (30 Mbps – Spectrum's low income offering)**	Minimum Proposed Upload Transmission Speed to Customer Location **10 Mbps (4 Mbps – Spectrum's low income offering)**
County or Counties served by this project **Jefferson**	Community or Communities served by this project **Slabtown, Oak Hill, Helen, Cold Spring, Hebron, Jefferson**
List of the broadband service providers, if any, currently serving the area the applicant proposes to serve **CenturyLink**	
Does proposed project serve an *unserved* area of the State, as defined in Section 1.4 of the application instruction? (yes/no) **Yes**	Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no) **Yes - Broadband Forward!** **Yes - Telecommuter Forward!**
For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access). **1**	For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access). **936**
Of the improved business locations, how many locations are *unserved*? **1**	Of the improved residential locations, how many are *unserved*? **7**
For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) **N/A**	Are there any programs available for low-income households to access low-cost service or discounts? (yes/no) **Yes**
Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) **Yes and through its successor program the Affordable Connectivity Program (ACP)**	Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no) **Yes**
Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no) **Yes**	

FY22 Broadband Expansion Grant Application
Budget & Income Summary

Wisconsin Broadband Office

Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

Grant Applicant:	Project:
Spectrum Mid-America, LLC and its subsidiary Spectrum Mid-America WI-FY2022, LLC, each managed by Charter Communications, Inc.	BB App Spectrum, Jefferson C County

Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	$ 2,033,217.00	$ 2,500,426.00	$ 4,533,643.00
2	Equipment	$ 666,677.00	$ 819,870.00	$ 1,486,547.00
3	Supplies			$ -
4	Labor (Salary, Fringe)			$ -
5	Permitting, Licensing Fees			$ -
6	Travel			$ -
7	Other			$ -
	Total:	$ 2,699,894.00	$ 3,320,296.00	$ 6,020,190.00
		55.2% match requested		

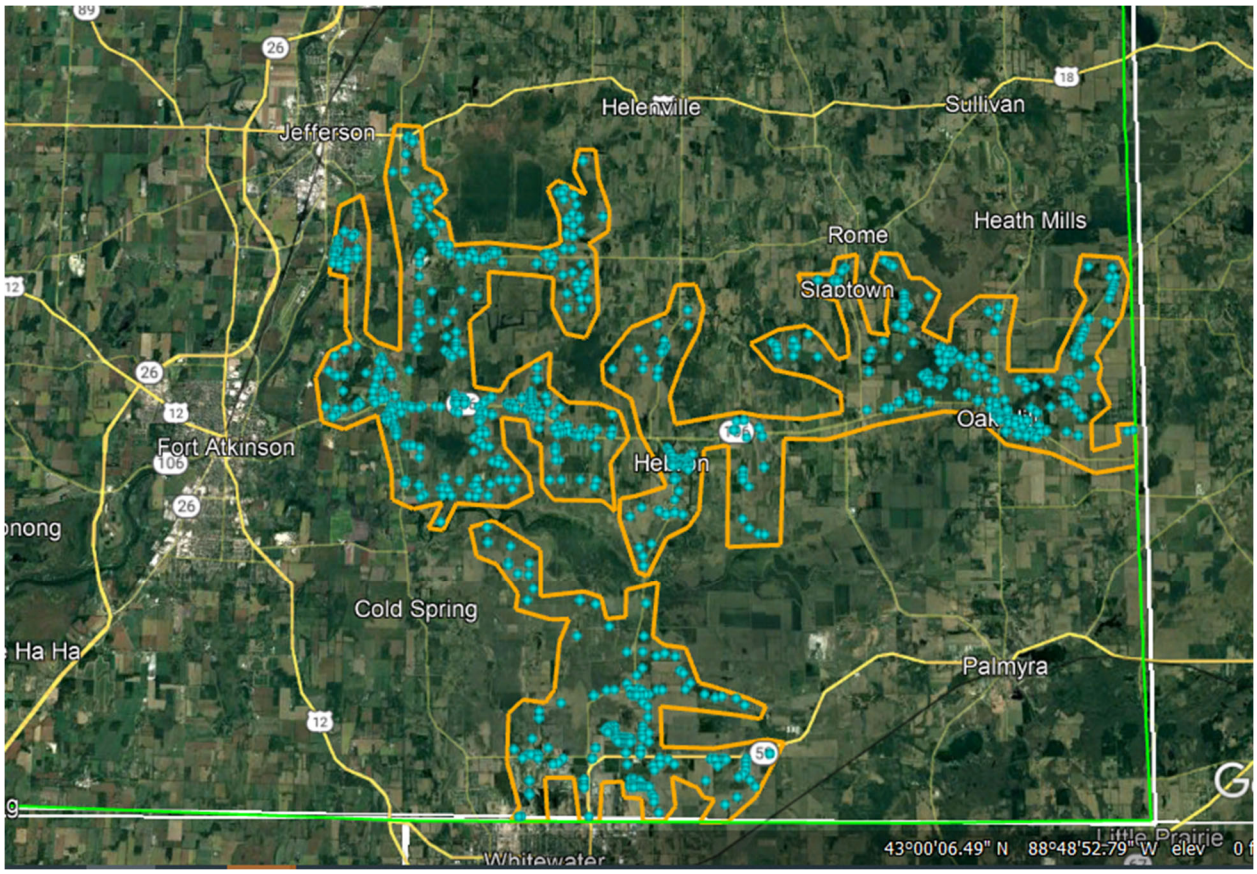
Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	Spectrum Mid-America, LLC and its subsidiary Spectrum Mid-America WI-FY2022, LLC, each managed by Charter Communications, Inc.	Applicant	Cash	$ 3,070,296.00
2	Jefferson County	Partner	Cash	$ 250,000.00
3				
4				
5				
6				
7				
8				
9				
10				
			Total:	$ 3,320,296.00

These costs do not include certain direct and indirect costs, reflecting contributions to the Project by Charter personnel that Charter is proposing to absorb itself, and for which this application does not seek grant funding. Project costs are limited to direct expenses for materials and contractor labor, only allowable expenses are included. All network builds and expansion will be fully owned by Charter. Funds requested in this Application will be used solely for the purpose of constructing and installing new broadband infrastructure throughout the designated grant area. While the Project will utilize and leverage existing facilities and assets to deliver broadband service to the Project area, Charter is not seeking funding for any portion of its existing asset base. No grant funds will be used for subsidizing operating costs.

Description of the Project Area to Be Served

The proposed Project Area is within the Towns of Slabtown, Oak Hill, Helen, Cold Spring, Hebron, and Jefferson in Jefferson County. The Project includes building over 100 miles of fiber optic network to connect an estimated 937 underserved homes, businesses and community anchor institutions in. A map of the proposed Project Area is shown below.



I. Executive Summary of the Project

Jefferson County, in collaboration with Charter, is requesting a grant to construct a last-mile fiber-to-the-premises ("FTTP") via Ethernet passive optical network ("FTTP EPON" or "EPON") to provide service to unserved and underserved households in Jefferson County (the "Project"). The proposed Project Area is within the municipal boundaries of Slabtown, Oak Hill, Helen, Cold Spring, Hebron, and Jefferson in Jefferson County. **The Project includes building a fiber optic network to connect an estimated 937 underserved homes, businesses and community anchor institutions**.

The Project will use Charter's FTTP EPON architecture, a standardized and mature model that is operated by Charter across the country, engineered and managed to meet 1 Gbps downstream speeds, 500 Mbps upstream speeds (and engineered to be scalable to higher speeds in the future), and latency of well below 100 milliseconds. Charter's FTTP EPON deployment is relevant and suitable for remote learning and remote working, offering very high bandwidth and low latency service attributes that accommodate numerous members of a household or small business simultaneously using bandwidth-intensive applications, such as video conferencing, telemedicine, video streaming, gaming, virtual or augmented reality sessions, and numerous other applications. New customers in the Project Area will have access to several Internet speed options, including Charter's "Spectrum Internet" with a standard starting speed of up to 200/10 Mbps and Charter's "Internet Gig" service at up to 1000/500 Mbps. Additional services that will be available to Charter Internet customers include, but are not limited to, anti-virus security protection and in-home WiFi. As an added benefit of its FTTP network, Charter will also be in a position to offer competitive video, mobile, and voice services in the grant area.

Because Charter 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.

If awarded grant funds, Charter anticipates beginning the project promptly with completion within the project period of up to 24 months, subject to timing of grant awards. Any delay in meeting that time frame related to pole attachment make-ready work required to install facilities, permitting, ability to access relevant locations, or other issues outside Spectrum's reasonable control, including pandemic-related or raw materials shortages, would promptly be brought to the attention of the PSC in order to secure additional time to complete the Project.

Priority Factors

a. Matching Funds

Charter estimates the direct cost of this network construction at $6,020,190, and requests a $2,699,894 (45%) grant to complete the Project. Charter and Jefferson County would contribute the remaining cost to complete the Project—a contribution of $3,070,296 from Charter; and $250,000 from Jefferson County, a combined $3,320,296, or 55% of the Project's up-front, direct construction costs. In addition, Charter will absorb all indirect costs and all operational costs of the Project going forward.

Charter's commitment to contribute or absorb substantial costs associated with the Project, and seek grant funding for only a portion of the direct construction costs for the new network facilities, results in a budget that will leverage Charter's existing resources, maximize the impact of grant funds, and streamline grant administration due to the limited nature of the expenditures for which Charter is seeking reimbursement.

Charter will be able to leverage its substantial existing internal resources and expertise to provide its management and supervision of the Project, and is not seeking reimbursement of its costs associated with project administration or any design, coordination, and other tasks that will be carried out by Charter internal employees within its construction, engineering, and field operations organizations. In addition to increasing the cost-effectiveness of state funds, Charter's commitment to limit the expenses included in the budget will simplify administration of the grant and verification that grant funds are expended only for allowable costs.

As set forth in the accompanying budget spreadsheet and justification, the Project includes within its proposed budget only a limited set of Charter's estimated direct, verifiable costs of construction. These consist of estimated material costs; direct contractor labor to carry out design, make-ready, and construction work; and licensing/permitting expenses. As previously stated, indirect costs and certain other direct costs associated with the effort—such as the contributions by Charter's internal employees on project design, supervision, and management—will be absorbed by Charter as part of its regular operations.

The network will also be backed and operated by Charter, the nation's second-largest broadband provider with extensive experience owning, operating, maintaining, and upgrading broadband networks, as well as well-recognized financial stability. Charter's financial resources and recognized, investment-backed commitment to rural America provide reassurance that Charter will be able to carry out the terms of the grant and continue to operate the system going forward. While these resources and assets are essential for the Project's success, Charter is not requesting any grant funding or support for its existing assets or facilities.

b. Public-private partnership

Proposed Joint Project Between Jefferson County and Charter

The Project will be a joint effort between Jefferson County and Charter, with Charter acting as the primary applicant and assuming responsibility for the construction and operation of the proposed network.

Jefferson County is actively engaged with the Project, and will:

- Support the project through collaborative oversight, community engagement, facilitating installation operations, and direct marketing activities.
- Consult with Charter to verify build-to-location data in the proposal, including final verification of Project locations.
- Support Removal of Regulatory Barriers. Charter, as described below, is well versed in managing the regulatory processes associated with the deployment of its broadband network. Nonetheless, sometimes obstacles arise that are beyond Charter's control, such as local permitting issues, pole attachments, and access to rights-of-way and easements. To the extent it is within its scope of authority, Jefferson County will work with Charter to coordinate removal of these obstacles.

Charter, described in more detail below, is an experienced service provider and a leading broadband company, and is well-versed and experienced in abiding by all necessary federal, state, and local requirements that are impacted during the build out and expansion of its network. Charter's role in the Covered Partnership will consist of:

- **Construction Management**: If the Project is selected for a grant, Charter will work with Town of Presque Isle to verify Project data regarding unserved and underserved households and businesses, secure the necessary permits, pole attachments, and other authority as necessary to support the Projects. In addition, Charter will complete the construction plan (including timeframes and costs) and manage all other aspects of the construction effort, maintenance of the system, and customer intake and service delivery. All networks builds and expansion will be fully owned by Charter or a Charter affiliate.
- **Commitment of Funds and Personnel**: If the Project is selected for a grant, Charter will contribute substantial private financial and operational resources to ensure the success of the Project, consisting of:
    1. A direct cash contribution to the direct design, construction, and licensing and permitting costs for the Project (a commitment estimated at $3,070,296, or 51% of the estimated direct construction costs of the Project);
    2. A contribution of all indirect costs of the Project, which Charter will absorb itself; and
    3. By absorbing all other direct costs of the Project not captured in the direct design, construction, and licensing/permitting costs, including supervision and management of the effort by Charter personnel.
- **Collaborating on Community Engagement**: Working with communities and Jefferson County to assist with digital literacy and broadband adoption strategies.

Letters of Commitment for each member of the partnership, setting forth their respective roles, are attached to this application as **Exhibit A**.

c. Existing broadband service

When this FY 2022 grant program opened on December 1, 2021, this Project Area was eligible. The revised maps changed eligibility but does not change the broadband challenges in Jefferson County.

Our partner Jefferson County offers the following input:

Parallel to the ARPA grant project being planned, the FCC released the results of the Rural Digital Opportunity Fund (RDOF), of which Jefferson County had several areas identified meeting the requirements for this program. The RDOF mapped areas along with previous grant project areas were consistent with the maps the PSC had produced for unserved and underserved areas of Jefferson County. Preliminary maps were released in December of 2021 for this grant application and were in place until February 9, 2022. On February 10, 2022, new maps were released showing the county no longer had any areas that were unserved or underserved. This led to one potential public/private partnership who was looking at a project in an underserved portion community from not moving forward.

As one of our school partners, who is actively trying to assist to improve the broadband access for their district, commented “magically overnight we have fixed the broadband challenges in Jefferson County.” Ironically, our residents and businesses did not get the memo either, as the access to equitable and adequate broadband on the ground did not change from February 8 to February 11.

After these maps were released, the county worked to do a sample size of transmission speeds through the county board supervisors in their districts, to validate our feedback of service availability by various county stakeholders. The county received data from 22 of our 30 supervisory districts. In general, the

small sample size validates the pre-February 10, 2022, maps, recognizing some service level improvements.

Many of our county board members who represent the more rural areas continue to show that most of their speeds are below the 25 Mbps download and 3 Mbps upload service levels. There were seven supervisory districts with less the 25 Mbps with four supervisory districts with less than 10 Mbps download speeds, ranging from 2.07 to 7.48. It should be noted that the 7.48 was reported in an urban district, not a rural district. In addition, there were seven districts where the upload speed was less than 3 Mbps with that range from .26 to 2.82, with three districts having less than 1 Mbps upload service levels.

Two other interesting notes also came out of this quick test. First, there are several supervisors in urban districts who were below the 25 X 3 speeds or just above these speeds, which reinforced the need for all parts of the county needing broadband. There was also a board member who had difficulty, due to limited broadband, to run the speed test and it took seven attempts to be able to connect. Other partners have also done a subregion study of the county through a speed test as well. The results are similar to the results in our supervisory districts, with a median download speed of 13.68 Mbps and a median upload speed of 2 Mbps. The preliminary data also indicates there is less than 30% access to wired connections outside urban service areas with primary reliance appearing to be on fixed wireless or cellular data and in some cases satellite.

Considering this information, the county would opine that access to equitable and adequate broadband appear to be more representative by the preliminary maps published on 12/8/2021 versus the current maps that indicated there are no unserved or underserved portions in Jefferson County.

The Project will have a substantial impact in the Project Area by connecting an estimated 937 households, businesses and anchor institutions, to last-mile connections providing 100% of those locations with access to a first-in-class, Gigabit network offering speeds of up to 1000Mbps/500Mbps with very low latency, transforming the broadband offerings available in the community.

Current service in this area offers DSL service that often does not meet the minimum 25/3 Mbps in many locations.

Current Competitor Speeds in Project Area

Wireline Carrier*	FCC Tier	Tech Type	Max Down Speed	Max Up Speed	Census Block Count	% of Project Census Blocks**
AT&T Inc.	<= 25 Mbps	DSL	25	5	27	26.5%
AT&T Inc.	> 25 and <= 100 Mbps	DSL	50	10	1	1.0%
CenturyLink, Inc.	<= 25 Mbps	DSL	25	2	3	2.9%
CenturyLink, Inc.	> 25 and <= 100 Mbps	DSL	80	10	4	3.9%
Telephone and Data Systems, Inc.	<= 25 Mbps	DSL	25	5	30	29.4%
Telephone and Data Systems, Inc.	> 25 and <= 100 Mbps	DSL	100	15	25	24.5%

*Competitors who do not specify speeds are not included in list.

**Does not total 100% as multiple competitors can overlap and some census blocks may be unserved

Source: FCC Broadband 477 database Dec 2020

d. Project impact

Service Offerings and Price

Upon completion, residents in the proposed Project Area will have access to Charter's Spectrum Internet Gig service (up to 1000/500 Mbps). With Spectrum Internet, customers can simultaneously stream videos, download music and more without sacrificing performance. Spectrum provides free modems and the fastest, most powerful in-home WiFi to do more on more devices.

Charter employs a nationwide pricing structure (called Spectrum Pricing & Packaging), which offers standardized pricing for each tier of broadband internet service Charter offers new customers across its service territory. Charter's pricing strategy ensures that rural customers receive the same pricing as other highly competitive areas in the state. Charter's wireline broadband offerings currently include no data caps, usage-based pricing, early termination or modem fees.

Current prices for Charter's Spectrum Internet Assist, Spectrum Internet, and Spectrum Internet Ultra service tiers, and its planned pricing for the Spectrum Internet Gig service tier, are as follows:[1]

Table 1: Standard Charter Wireline Residential Broadband 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	500	$114.99	$49.99

In addition to the standard, non-promotional rates itemized above, Charter may also offer promotional pricing, including bundled discounts. Charter's current promotional offerings can be found at https://www.spectrum.com/internet.[6] Spectrum's terms of service will apply to all tiers of service. In addition to wireline broadband services, Charter will also offer video, voice, and mobile services in the grant area.

Low Income Programs

Spectrum has engaged in several initiatives and established numerous business practices that benefit consumers in need and demonstrate our commitment to the community. As described below, Spectrum has established several programs to provide low cost internet service particularly for students and remote learning, has assisted customers struggling to pay their bills for service, and

[1] All rates, speeds and terms of service stated herein are subject to change.

[2] Represented pricing is for wireline residential 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 income.

[5] For self-installation only. Additional fees may apply for professional installation.

[6] All promotional offers are subject to change and may not be available in all areas or to all customers.

supported communities by providing good paying jobs and long-term careers, and strengthening local organizations. Charter's current programs are described below. Just recently Charter announced an enhanced affordability solution called "Internet 100" for $29.99, which is tied to the federal government's new Affordable Connectivity Program (ACP). Customers qualifying for ACP in Wisconsin will be eligible to receive a new low-cost, low-income product offering of up to 100Mbps download and 10Mbps upload for less than the monthly $30 ACP subsidy. This service will remain available for the duration of the ACP.[7] For the duration of the ACP, Charter also currently plans to continue offering Spectrum Internet Assist to customers who meet the eligibility and prefer to purchase that service.

- **Stay Connected K-12 Program:** To help address the lack of Internet connectivity faced by some student households, through the Stay Connected K-12 program, Spectrum is working directly with schools and school districts across its footprint to assist them in offering high-speed, cable broadband Internet access to students, educators, and staff in their homes. Spectrum is currently connecting thousands of students and educators through this program across the Country. This product offering helps to ensure that learning, teaching, and working are uninterrupted by giving schools and school districts the flexibility to add students to the program when needed, and provide much-needed in-home connectivity at speeds up to 50 Mbps/5 Mbps. To date, Spectrum has established such relationships with school districts in Wisconsin and 18 other states, including Alabama, California, Colorado, Connecticut, Florida, Georgia, Idaho, Indiana, Kentucky, Maine, Massachusetts, Minnesota, Missouri, New York, Ohio, Oregon, Texas, and Washington.
- **Bulk Rate Solution to Bridge Digital Divide:** Charter now also offers a bulk rate partnership opportunity for counties, municipalities, housing authorities, or other local entities to identify homes in underserved areas and provide them with a heavily discounted bulk rate for Spectrum's Internet service offering. If the County is interested in exploring a bulk rate discount program, Spectrum is happy to further discuss this at the appropriate time.

e. Scalability

Charter's participation in the Federal Communications Commission's Rural Digital Opportunity Fund (RDOF) rural broadband expansion program will allow significant synergies with Charter's existing infrastructure and scalability in connection with this Project. Charter's RDOF will add 3,394[8] additional locations in Jefferson County beyond what the proposed Project would provide.

Charter's network design offers scalability that non-wireline offerings cannot match. The FTTP EPON architecture proposed for the Project will scale to support customer growth and data usage growth for (a) ever increasing application requirements; (b) increasing quality demand; and (c) lower response/latency demands for ever increasing usage of highly interactive applications.

---

[7] The discount is up to $75 per month in Tribal Lands. The ACP is limited to one monthly service credit per household. Other program qualifications and restrictions may be found at www.spectrum.net/support/internet/affordable-connectivity-program. Terms and conditions of product service and offering may be subject to change.

[8] Estimated number of locations provided by the FCC at the time of award. Actual number of locations subject to future walkout, design, engineering and other verification.

FTTP EPON technologies leverage fiber optic cables that provide vast amounts of bandwidth over a very low loss transmission medium. Fiber backbones operated by the largest communications companies in the world, such as Charter, rely on fiber optic cables to carry Terabits per second of traffic in a single fiber strand. This same technology concept is applied in the last mile FTTP architecture, providing growth support for decades to come. Scalable elements also include routers and switches that support higher speeds and services.

As Charter adds customers over time and as customers consume more bandwidth, Charter's scalable model and proven capacity management processes will accommodate this growth. While Charter will be building a new last mile FTTP EPON network in the Project Area, this last mile network will be connected to Charter's existing robust and scalable network tiers, which are already in place and ready for growth. Charter augments its capacity through normal operating procedures, and these procedures will extend to the proposed Project Area seamlessly.

In addition, recognizing the importance of fast, reliable service for community institutions, **Charter also offers up to 100 Gbps symmetrical speeds to large businesses, schools, libraries, hospitals, and other important community institutions through customized dedicated builds by its Spectrum Enterprise business organization.** The present application and proposed budget do not include the costs of such customized builds; however, Charter's network presence in the project area would better position the company to make such offers available.

f. Economic development

Our partner Jefferson County offers the following input:

Both ThriveED and committees in Jefferson County have in depth studies and documents regarding the need for high-speed internet and its impact on the area. We will touch on a few of these areas here that are of critical importance.

Located between the state's two largest metro areas -- Madison to the west and Milwaukee to the east -- Jefferson County is poised for residential, commercial, business and agricultural growth. This corridor is often referred to as the "I-Q Corridor" which is significant to the state's vitality. County leaders are planning for new development in the recently approved update of the county's Comprehensive Plan. But growth depends to an ever-increasing extent on access to high-speed Internet. No business, no family, no store owner, no farm operator can afford to be in an area that lacks such access or in which the only options for high-speed Internet are costly, data-limited, and often slow cellular hot spots or unreliable satellite dishes. Unserved and underserved areas of internet service would significantly hinder the anticipated natural growth of Jefferson County.

In addition to the county's major employers and large businesses, for which high-speed Internet is a critical component of their operations, Jefferson County has hundreds of in-home entrepreneurs, home-office professionals and micro-business owners located in rural areas for whom high-speed internet is no less critical. Since 2010, the Jefferson County Planning and Zoning Department has issued 150 conditional use permits for home occupations in areas outside municipal boundaries where county zoning ordinances are in force. The occupations of these rural property owners include auto repair, wedding barns, small retail stores, contractors, metal and wood sculpture, beauty salons, welding shops, landscaping, federal firearms dealer and massage therapy. In addition, we know anecdotally that a large number of rural residents operate professional businesses out of their homes for which no conditional

use permits are required. These occupations include realtor, insurance agent, investment advisor, writer, editor, photographer and therapist.

Vicki Pratt, Executive Director, Jefferson County Economic Development Consortium and President, Thrive Economic Development states, "Lack of high-speed internet access is a major barrier to the economic development growth in Jefferson County, and adversely impacts our regional competitiveness. According to the National Associations of Counties, only 56% of the rural population of Jefferson County has access to broadband."

How the speeds and service being offered by the project fits with current and future economic needs of the community and local businesses.

Our partner Jefferson County offers the following input:
Leadership of MadRep and the Milwaukee 7 Economic Development Partnership (M7), representing the capital region and the seven counties of Southeast Wisconsin indicate, "The lack of high-speed internet access is a major block to economic development in Jefferson County. Economic development does not know political boundaries, Jefferson County needs internet service that is on par with its neighboring counties. MadRep, the M7 Region and Jefferson County share labor shed, supply chains and businesses with operations throughout the I-94 corridor region, with examples including Husco, Generac and Fisher Barton. Additionally, education for the workforce of the future is crucial and broadband plays and ever emerging need to facilitate these efforts. Jefferson County is also home to telecommuters working for companies in both the M7 and Madison regions; appropriate broadband capacity will help support these workers."

Jefferson County is a key location along the Milwaukee-Madison corridor and the I-Q Corridor, connecting Chicago, Milwaukee, Madison and Minneapolis. These corridors are significant to the state and the vitality of the future. In order for Jefferson County to be a part of the economic potential and growth, it must have connectivity in line with its neighbors on these corridors.

Kevin Kaufmann, Director of the Small Business Development Center at UW-Whitewater backs up the above statements stating, "Reliable, high-speed internet is the most necessary means of communication. Having limited or no access to internet becomes a huge limitation for businesses. We are not able to run our business effectively without high-speed internet, thus, limiting the county's promotion of job growth and increases tax base."

How an improved download and upload transmission speed could better support a specific business in the project area.

Our partner Jefferson County offers the following input:
Charles Kuhl the IT/IS Administrator provides this statement on how this broadband project would impact the McKay Nursery Company: "Having limited or no access to internet becomes a huge limitation for businesses. We are not able to run our business effectively without high-speed internet, thus, limiting the county's promotion of job growth and increased tax base. As our business is spread out over several townships, we would be interested in better broadband capabilities in rural areas as we now have communications gaps because of the lack of reliable services. When it comes to service for customers, having internet access would allow me the ability to process many things that are now requiring the use of internet such as email, online ordering and sending electronic files."

Economic impact the project could have for an individual business located in the project area.

Our partner Jefferson County offers the following input:
Area businesses also suffer from the fact that the internet service they have access to is not providing actual broadband speeds defined by the FCC and the PSC of 25x3. Jeff Okazaki, Executive Director, of the Humane Society of Jefferson County, explains how this affects his organization: "Because of the patchwork of infrastructure in the county, even though we are only about a half mile away from higher broadband service, we're currently out of provider range. Our broadband connection is limited to a supposed 5 Mbps download speed, however that theoretical amount in practice often actually amounts to speeds of 0.2 Mbps or less. This has meant that our staff contends with regular internet access issues that significantly affect the working of our business. We have difficulty reading e-mail, processing credit cards, or even accessing basic websites."

How improved broadband service could impact residential property values, supported by local sales data if available.

Our partner Jefferson County offers the following input:
This project would have a significant impact for residential property values as well. Realtor June Herman, of The Real Estate Duo, who has lived in a town in Jefferson County for over 45 years states: "High-speed, reliable broadband internet service is no longer a luxury. It's a consumer expectation that is lacking in rural communities. This expectation rewards home sellers who have reliable high-speed internet access with increased home values and faster sales times. The Real Estate Duo's property information sheets for buyers include the current service used by the homeowner and whether fiber optic service is available, because that's what home buyers want to know. "Buyers today require high speed internet service for entertainment, shopping, medical records access, children's homework, higher-education classes, home-based businesses and community involvement. If a rural home cannot serve their internet needs, they reluctantly move to an urban community. This negatively impacts rural home values. It's possible to do all the activities shown above in a rural home, but it becomes very expensive. In our rural home-based business, The Real Estate Duo relies on satellite internet service for our home computers. We purchase the highest data package averaging a base cost of $160 each month. In busy months when our emails and data uploads/downloads increase we exceed the data limit and must purchase more data packets, adding up to $100 to our monthly cost to total about $260. We also pay for unlimited mobile access for data services on iPhones and iPads, used both at home and on the road, at a cost of $223 per month. We estimate 60% of that use is data, not phone, and primarily used at home to keep our satellite usage down. Combining satellite and mobile internet, our monthly internet data costs $295 to $395."

"Satellite service becomes spotty if a thunder or snowstorm is moving up from the south and across our area. After a heavy, wet snow we have to go out with a long pole and rake the snow off our satellite dish in order to regain service."

How the proposed project will affect the ability of students to access educational opportunities.

Our partner Jefferson County offers the following input:
Information from The HOME Consortium's 2020-2024 Consolidated Plan. The HOME Consortium includes Jefferson, Ozaukee, Washington, and Waukesha Counties, which participate together to receive HUD grant funds for affordable housing. For the first time, HUD included a section on Availability of

Broadband Access as a requirement for submission. The plan notes this need as follows, "Reliable access to the internet is increasingly imperative for job searches, primary and secondary education, college and continuing education programs, and applying for and obtaining assistance from various social service agencies and housing providers." … "Areas of the Consortium with less than three internet providers include farmland areas in the northern parts of Ozaukee and Washington Counties, the southwest corner of Waukesha County, and throughout rural Jefferson County."

How improved broadband service to a residential portion of the project could benefit a telecommuting population.

Our partner Jefferson County offers the following input:
Last but not least, it's difficult to attract the age demographic to improve the county's workforce if there is no option to work from home. Jefferson County and businesses in the county are painfully aware of this. Jefferson County as shown its commitment to solving this issue by becoming a Telecommuter Forward! Certified Community. The Resolution No. 2019-47, Supporting Telecommuting Opportunities and Telecommuter Forward! Certification was adopted on November 12, 2019.

A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.

Charter's proposed FTTP network is well suited for bandwidth-intensive applications like telemedicine. Charter's FTTP network would enable customers to engage in virtual doctor visits without leaving their homes. Accordingly, telehealth is a promising approach to reduce health disparities in rural communities by bringing specialized healthcare to these communities where such care was previously unavailable. Telehealth also facilitates monitoring and follow-up care for chronic health conditions, and connecting providers in remote areas, mental health services, and access to online pharmacies. Local public health departments can also leverage telehealth approaches to better serve their communities.

g. Effect upon broadband service to adjacent areas

This proposed project will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed Project Area.

III. Additional information supporting the application

a. Charter's History and Experience

Across the nation and in Wisconsin, Charter is a leading connectivity company providing superior products and services through its Spectrum brand of services and investing in the infrastructure, technology, and people powering the future. Charter is at the intersection of technology and entertainment, facilitating communications that connect more than 32 million residential and business customers in 41 states. Charter's commitment to serving customers and exceeding their expectations is the bedrock of Spectrum's business strategy and is the philosophy that guides its 93,000+ employees (that includes the approximately 3,600 employees who call Wisconsin home).

Nationally, Charter is the second largest broadband provider. The company has achieved growth through innovation and acquisitions of cable properties, including completing transactions with Time Warner Cable and Bright House Networks. U.S. News and World Report recently named Spectrum Internet as the "**Best Internet Service Provider for Rural Areas.**"[9] Charter's commitment to service quality has resulted in Multichannel News naming its Spectrum brand as **Operator of the Year for 2020,** CableFax naming us **"2021 MSO of the Year,"**[10] and CNET naming Spectrum the **"Best Cable Internet Provider"** for 2022.[11] Spectrum's unparalleled commitment to service quality was especially evident in response to the pandemic. Charter's network continued to perform well despite higher levels of peak bandwidth usage. And Charter accomplished all this while making adjustments to how and where we worked in response to COVID protocols.

Charter has invested nearly $40 billion in infrastructure and technology over the last five years as part of its long-term commitment to expanding broadband access across urban, suburban and rural areas to connect more Americans. From 2018-2020 alone, Charter extended its network to reach an additional 2.5 million new homes and businesses, about a third in rural areas. Charter has recently announced a $5 billion dollar initiative through RDOF to connect more than a million currently-unserved, mostly rural families and small businesses to reliable broadband service with speeds of up to 1 gigabit per second, including adding significant resources to its construction department focused solely on adding nearly 115,000 miles of new network infrastructure to its more than 750,000 existing miles. Charter also plans to hire more than 2,000 employees and contractors to support the expansion nationwide. Wisconsin is the state where Charter received its largest RDOF award.

Charter will use the same network deployment and operational procedures in the Project Area that are currently successfully employed across the country. These practices include documented and thoroughly tested methods of managing network performance, managing service issues at a network or customer level, and coordinating change management with minimal or no disruption to customers. All of Charter's services are delivered over its state-of-the-art network and Charter backs them up with professional customer service and support from local technicians. Charter is dedicated to bringing its clients innovative, reliable services, and responsible care.

In Wisconsin, Charter (and its predecessor companies) have been providing broadband internet service for decades. Charter currently serves over 800 communities in Wisconsin, and provides broadband internet, video and voice service to more than 1.5 million customers, operating more than 40,000 miles of plant. In 2021 Charter began its commitment to build more than 140,000 new, unserved locations in Wisconsin through RDOF. More than $668 million will be invested in Wisconsin, which includes an expected private investment of approximately $500 million by Charter and $168 million in support won by Charter in the FCC's RDOF auction. For this Project, Charter will be able to draw on the experience and capabilities of its regional and local personnel building and maintaining broadband infrastructure in all of these efforts.

As stated above, Charter has extensive experience building new network across 41 states every year, including deployment of its network into unserved rural areas, is well informed and practiced in adhering to required permitting processes and laws, and has well-established procedures to ensure that its networks are always constructed consistent with all applicable legal and regulatory requirements.

---

[9] U.S. News and World Report, *Best Internet Providers for Rural Areas* (July 8, 2021), https://www.usnews.com/360-reviews/internet-providers/best-rural

[10] https://www.cablefax.com/event/2021-cablefax-top-ops

[11] https://www.cnet.com/home/internet/best-cable-internet/

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 that projects are managed effectively and efficiently.

Prior broadband expansion projects

Charter recognizes the importance of extending broadband service to unserved and underserved rural Wisconsin. Since 2014, Charter has actively participated in the Wisconsin Public Service Commission State Broadband Grant Program and has received 17 broadband grant awards. Twelve of these grant projects have been completed and of the remaining five, one is expected to be completed in the spring of 2022 and the remaining four are expected to be completed by December 31, 2024. Through these public-private projects, thousands of previously unserved and underserved residents now have access to broadband.

The below chart provides a list of our successful public/private broadband expansion efforts in Wisconsin since 2018.

COMPLETED PROJECTS

Area	County	Community	Residential and Business Locations added	Activation date	Technology Used	Grant or Full Spectrum Investment
Pardeeville	Columbia	Village of Pardeeville	1045	Jun 2018	Hybrid Fiber Coax	Full Spectrum Investment
Dunn	Dane	Town of Dunn	117	Jun 2018	Hybrid Fiber Coax	State BB Grant
Fall River	Columbia	Village of Fall River	780	Mar 2019	Hybrid Fiber Coax	Full Spectrum Investment
King	Lincoln	Town of King	323	Jan 2020	Hybrid Fiber Coax	State BB Grant
Monticello	Green	Village of Monticello	567	Feb 2020	Hybrid Fiber Coax	Full Spectrum Investment
Orfordville & Footville	Rock	Villages of Orfordville & Footville	843	July 2020	Hybrid Fiber Coax	Full Spectrum Investment
Menominee	Menominee	Menominee Tribe	210	Dec 2020	FTTP	CARES Act Grant
Walter Dr - Woodruff	Oneida	Town of Woodruff	68	Dec 2020	Hybrid Fiber Coax	State BB Grant
Anson	Chippewa	Town of Anson	57	Dec 2020	Hybrid Fiber Coax	State BB Grant
Aedan Egan-Belgium	Ozaukee	Village of Belgium	19	Feb 2021	Hybrid Fiber Coax	State BB Grant

Strawberry Glen – Jackson	Washington	Town of Jackson	46	Feb 2021	Hybrid Fiber Coax	State BB Grant
Fairwater – Ripon	Fond du Lac	Town of Ripon	185	May 2021	Hybrid Fiber Coax	State BB Grant
Lake Michigan Dr – Sturgeon Bay	Door	Sturgeon Bay	134	Jun 2021	FTTP	State BB Grant
Marquette	Green Lake	Village of Marquette	164	Aug 2021	Hybrid Fiber Coax	State BB Grant
Randolph	Columbia	Village of Randolph	837	Oct 2021	Hybrid Fiber Coax	State BB Grant
Lyons	Walworth	Town of Lyons	53	Nov 2021	Hybrid Fiber Coax	State BB Grant
Menominee Phase 2	Menominee	Menominee Tribe	26	Dec 2021	FTTP	CARES Act Grant

PROJECTS IN PROGRESS

Area	**County**	**Community**	**Residential and Business Locations added**	**Deadline to complete**	**Technology Used**	**Grant or Full Spectrum Investment**
Eagle River – Silver Lake, Rangeline & Deerskin	Vilas	Towns of Washington & Lincoln	705	Summer 2022	FTTP	State BB Grant
Racine	Racine County	Countywide	2000	December 31, 2024	FTTP	State BB Grant
Kenosha	Kenosha County	Countywide	918	December 31, 2024	FTTP	State BB Grant
Walworth	Walworth County	Countywide	1648	December 31, 2024	FTTP	State BB Grant
Town of Janesville	Rock	Town of Janesville	39	December 31, 2024	FTTP	State BB Grant

b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

Charter will not build to any existing locations already served by Charter. Moreover, all of the locations proposed for the Project are either "unserved" or "underserved" as defined in Wis. Stat. § 196.504, so the Project does not duplicate any other provider's existing infrastructure in any "served" area.

c. A description of an applicant's financial ability to undertake the proposed broadband construction project.

Charter's proposed Project budget includes only a limited set of Charter's estimated direct, verifiable costs of construction. These consist of estimated material costs; direct contractor labor to carry out design, make-ready, and construction work; and licensing/permitting expenses. Indirect costs and

certain other direct costs associated with the effort—such as the contributions by Charter's internal employees on project design, supervision, and management—will be absorbed by Charter as part of its regular operations.

Once constructed, the State can also have a high degree of comfort that the Project will be sustainable. The network will also be backed and operated by Charter, the nation's second-largest broadband provider with extensive experience owning, operating, maintaining, and upgrading broadband networks, as well as well-recognized financial stability. Charter has substantial cash flow, revolver capacity, and access to the capital markets. Charter's financial resources and recognized, investment-backed commitment to rural America provide reassurance that Charter will be able to carry out the terms of any grant and continue to operate the system going forward.

Charter Communications, Inc., the company behind the customer-facing brand of Spectrum, is a Fortune 70 company with a market capitalization near $100 billion. All portions of the project to be funded by Charter will be funded from the company's general construction budget. Full copies of Charter's most recent financials can be accessed here:

- Annual Report to Shareholders: https://ir.charter.com/financial-information/annual-reports
- SEC Filings: https://ir.charter.com/financial-information/sec-filings
- Annual Form 10-K for year ended December 31, 2021: https://ir.charter.com/static-files/63606f63-1b11-4d60-91a0-5395f1552592

Charter funds its construction projects using a centralized holding company planning model. For the proposed Project, Charter will aggregate needs and accumulate funds at the holding company level using a mix of available funding pools, including ongoing business free cash flow, existing credit lines, and new bond issuances, which could include high yield or investment grade bonds similar to those in our debt structure today. Our goal is to mix these resources as efficiently as possible. We continually evaluate our collective funding need and utilize funding mechanisms based on what is currently most advantageous for Charter. Our centralized funding entities will then disperse funds to the Charter affiliate participating in the Project to fund the Project on an as needed basis.

Charter has more than adequate cash flow to meet all Project obligations, including both initial construction and ongoing operation of the proposed network. Charter's free cash flow generally reflects the cash flow from our business that is available for investment, debt repayment, or for distribution to our shareholders in a given year. Free cash flow has already been reduced for our expected interest payments and normal capital expenditures. Charter's free cash flow in 2018, 2019, 2020, and 2021 was $2.2b, $4.6b, $7.1b, and $8.7b, respectively. Collectively, our free cash flow, revolver capacity, and access to capital markets reflect more than sufficient resources to fund the proposed Project. In addition, consensus estimates of our ongoing free cash flow would be more than sufficient to fund our debt maturity obligations as they come due, along with allowing us to continue to operate our business, including the build-out systems.

March 17, 2022

Ms. Steffany Powell Coker
Secretary to the Commission
Public Service Commission of Wisconsin
4822 Madison Yards Way
North Tower - 6th Floor
Madison, WI 53705-9100

RE: FY 2022 BROADBAND EXPANSION GRANT APPLICATION

Dear Ms. Coker:

In response to The Fiscal Year 2022 Broadband Expansion Grant Cycle in collaboration with Spectrum Mid-America, LLC, by its manager, Charter Communications Inc. Charter ("Spectrum" or "Charter") hereby submits the enclosed Application, which we believe appropriately recognizes the urgency of the request and sets forth a straight-forward implementable plan to connect the most unserved and underserved homes utilizing the available funding.

Our proposal, if accepted, will deliver robust high speed internet with up to 1 gigabit per second ("Gbps") download and 500 megabits per second ("Mbps") upload speeds, to 937 locations identified in Spectrum's Application in Jefferson County – C, using fiber-to-the-premises (FTTP EPON) technology.

Charter has invested nearly $40 billion in infrastructure and technology nationally over the last five years as part of its long-term commitment to expanding broadband access across urban, suburban and rural areas to connect more Americans. In 2021, Charter extended its network to reach an additional 1.1 million new homes and businesses across the country, including an additional 41,000 in Wisconsin.

Backed by more than 3,591 local employees, $670 Million in capital investment in Wisconsin over the last two years, and a robust gigabit capable network, we are uniquely positioned to meet your objectives in a more efficient and meaningful way than any other applicant.

Charter recognizes the urgent need for extending access to reliable broadband to all its residents. Charter, through its Spectrum brand of companies, currently serves approximately 1.5 million customers in Wisconsin, and more than 32 million customers nationwide. Over an advanced communications network, the company offers a full range of state-of-the-art residential and business services including Spectrum Internet, TV, Mobile and Voice.

Our continued commitment to providing broadband in the State is further evidenced by our 2021 announcement to build more than 140,000 unserved locations in Wisconsin through the Federal Communications Commission's Rural Digital Opportunity Fund ("RDOF") auction. More than $668 million will be invested in Wisconsin, which includes an expected private investment of approximately $500 million by Charter and $168 million in support won by Charter in the FCC's RDOF auction. In Jefferson County we will be building 3,394 locations.

Each day that passes without connectivity increases the gap between those who have broadband and those who do not. We believe this proposal echoes the State's strong desire to bring connectivity to unserved and underserved residents of the state. Charter is excited for the opportunity to work with the Wisconsin Public Service Commission to bring continued major investment of broadband expansion in the State.

Please find the detail of our response enclosed. Again, we are pleased to be considered for such an important and ambitious project. Thank you for your leadership on this critical issue.

Sincerely,

Adam Raschka,
Regional Senior Director, Government Affairs

CODY HORLACHER

STATE REPRESENTATIVE • 33RD ASSEMBLY DISTRICT

(608) 266-5715
Toll-Free: (888) 529-0033
Rep.Horlacher@legis.wi.gov

P.O. Box 8952
Madison, WI 53708-8952

March 16, 2022

Public Service Commission of Wisconsin
Attn: Steffany Powell Coker, Secretary to the Commission
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way
Madison, WI 53705

Ms. Coker:

Please accept this letter in support of the efforts of the Jefferson County Broadband Expansion Project, and Charter Communications, as they apply for a Broadband Grant through the Public Service Commission. This project crosses into the 33rd Assembly District.

I know how important access to broadband internet service is to our communities. As the State Representative for the 33rd Assembly District and a member of the Assembly Committee on Science, Technology and Broadband, I have worked diligently to improve broadband access for residents of underserved areas of the state and throughout my legislative district.

Approving this grant proposal would allow 945 homes and businesses the opportunity to continue to adequately prepare for the challenges of a changing economy. The students, workers, and business owners in this area will make up our future workforce, and it is essential that they have the tools they need to continue to succeed in our ever-evolving, digital world.

Thank you for taking the time to review this application. I ask that this proposal be given serious consideration. If there are any questions, concerns, or reservations about the proposal, I would respectfully ask that you work with the key stakeholders, who would be best able to help you remedy them.

Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,

Cody J. Horlacher

Cody J. Horlacher
State Representative – 33rd Assembly District

Stephen L. Nass
Wisconsin State Senator

March 11, 2022

Steffany Powell Coker
Secretary to the Commission
Public Service Commission of Wisconsin
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way
Madison, Wisconsin 53705

RE: Jefferson County Broadband Expansion Grant – Project C

Dear Ms. Coker:

I am commenting in support of the Jefferson County Broadband Expansion Grant to help the residents in Jefferson County. Due to the scope of the project, it will impact both rural and urban areas. Charter Communications is proposing to expand its fiber line for broadband service to 945 homes and businesses in the county, for a total cost of approximately $6 million dollars.

The lack of high-speed Internet access is a major road block to economic development in Jefferson County. In our digital age, the poor broadband infrastructure in place leaves a detrimental impact on small, underserved and rural communities. Local businesses are losing opportunities because of poor Internet connections. Students are placed at a competitive disadvantage as they struggle to access information online with the same ease as their peers. Residents are unable to reliably use the Internet for basic tasks such as finding job postings, booking business and personal travel arrangements and managing bank accounts. The fact of the matter is that in our connected economy, access to a broadband Internet connection is an absolute necessity; without it, Jefferson County will continue to lag behind in job creation and community development.

I urge you to approve the grant application for funds to expand broadband access in Jefferson County. Enhanced mobile broadband will provide critical applications that improve the public health, safety and economic development opportunities. Thank you for your time and consideration.

Sincerely,

Steve Nass
State Senator
11th District

"In God We Trust"

11th Senate District
P.O. Box 7882 · Madison, WI 53707-7882 · (608) 266-2635
Toll Free: (800) 578-1457 · E-mail: Sen.Nass@legis.wi.gov

SCOTT FITZGERALD
5TH DISTRICT, WISCONSIN

COMMITTEE ON THE JUDICIARY

COMMITTEE ON SMALL BUSINESS

COMMITTEE ON EDUCATION AND LABOR

Congress of the United States
House of Representatives
Washington, DC 20515–4905

WASHINGTON, DC OFFICE
1507 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225–5101

BROOKFIELD DISTRICT OFFICE
120 BISHOPS WAY
SUITE #154
BROOKFIELD, WI 53005
(262) 784–1111

July 22, 2021

Kristy Nieto, Division Administrator - Division of Digital Access, Consumer and Environmental Affairs
Wisconsin Public Service Commission (PSC)
Hill Farms State Office Building
4822 Madison Yards Way, North Tower, 6th Floor
Madison, WI 53705

RE: Jefferson County Broadband Expansion Grant

Dear Division Administrator Nieto:

On behalf of Wisconsin's 5th Congressional District and as the federal Representative for Jefferson County, I am writing to express my support for the Jefferson County Broadband Expansion Grant application to secure grant funding to help both rural and urban residents throughout Jefferson County secure high-speed internet access.

It is my understanding that the current lack of high-speed internet access is hindering economic development opportunities in Jefferson County, and in particular, the limited broadband infrastructure that currently exists is having a particularly negative impact on the underserved and rural communities of the county.

For example, I have been advised that local businesses are missing out on opportunities to grow and expand their operations due to poor internet connections. Additionally, students who utilized virtual learning options were also at a competitive disadvantage, as they struggled to access the online learning tools that were available. Further, county residents have often found themselves unable to count on reliable connectivity for even the most basic of tasks such as identifying open job openings, making business and personal travel arrangements, and managing bank accounts. And, first responders, particularly in rural areas of the county, increasingly need access to consistent and dependable broadband access to serve their communities.

As digital platforms are becoming increasingly common across all facets of society, having reliable broadband connection is an absolute necessity. Securing this funding will bolster the opportunities within the county for residents, businesses, first responders and students to strengthen the community.

It is for those reasons that I would respectfully request that you give your full, fair, and prompt consideration to Jefferson County's grant application – in a manner consistent with all laws, rules, and regulations - so that they may receive the funds necessary to expand broadband access throughout Jefferson County.

Should you have any questions about this letter of support, please feel free to contact my office at 262-784-1111. Thank you again for your time and consideration of Jefferson County's request.

Sincerely,

Scott Fitzgerald
Member of Congress

PRINTED ON RECYCLED PAPER

JEFFERSON COUNTY

OFFICE OF THE COUNTY ADMINISTRATOR

311 S. Center Avenue, Room 111
Jefferson, WI 53549
Telephone (920) 674-7101
Website: jeffersoncountywi.gov

BEN WEHMEIER
County Administrator

TAMMIE J. JAEGER
Administrative Secretary

"Jefferson County: Responsible government advancing quality of life."

Steffany Powell Coker
Secretary to the Commission
Public Service Commission
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way
Madison, WI 53705

Dear Ms. Coker,

I write today on behalf of Jefferson County and our communities with our goal to provide equitable and adequate broadband coverage to each corner of Jefferson County. Jefferson County has worked hard in its efforts to accelerate the pace of achieving this goal through developing a specific Broadband Working Group which has overseen numerous efforts that led the county to being designated a Broadband Forward! Community and Telecommuter Forward! Community. In addition, this work has been supported through various planning processes to include the County's Strategic Plan and Comprehensive Plan Update, the latter being approved in 2021. The community feedback for both planning documents prioritized the need for broadband countywide and the recognition that this is an essential need for education, economic development, telecommuting, healthcare, and quality of life. Further, Jefferson County's unique position in the state of being the bridge to connect the Madison and Milwaukee Region makes it even more crucial that our broadband capabilities are equitable to others on this important I-94 corridor not only for our own growth potential, but the importance of this corridor, often referred to as the I-Q Corridor, has for the state's economic future.

These strategic efforts have led to building public/private partnerships in the county's efforts to help improve this vital service to our communities. Our first partnership began with Netwurx and Bertram. Netwurx was able to receive a grant in the greater Town of Watertown area to expand fixed wireless service. This was followed by the County and Bertram, with assistance by Netwurx, on securing CARES Act funding that facilitated the construction of four large fixed wireless sites in strategic locations in the county. Despite these efforts, there were numerous areas in the county that were still identified as unserved and underserved. Further, many of the areas that may be shown to have coverage by fixed wireless sites were not accessible to receive these services due to various conditions. As such this led the county to work with Bertram and Netwurx in 2021 to apply for six applications covering various parts of the county with the PSC APRA grants to seek fiber to the premise projects. Both recognized the need for diverse methods to provide equitable and adequate broadband coverage. In the interim partners, such as school and libraries, have continued their efforts to bridge the gap for broadband. These efforts include making available hotspots and expanding capabilities of public wireless access to parking lots, so community members and students have a resource to assist them in their needs.

Parallel to the ARPA grant project being planned, the FCC released the results of the Rural Digital Opportunity Fund (RDOF), of which Jefferson County had several areas identified meeting the requirements for this program. The RDOF mapped areas along with previous grant project areas were consistent with the maps the PSC had produced for unserved and underserved areas of Jefferson County. Preliminary maps were released in December of 2021 for this grant application and were in place until February 9, 2022. On February 10, 2022, new maps were released showing the county no longer had any areas that were unserved or underserved. This led to one potential public/private partnership who was looking at a project in an underserved portion community from not moving forward.

As one of our school partners, who is actively trying to assist to improve the broadband access for their district, commented "magically overnight we have fixed the broadband challenges in Jefferson County." Ironically, our residents and businesses did not get the memo either, as the access to equitable and adequate broadband on the ground did not change from February 8 to February 11.

After these maps were released, the county worked to do a sample size of transmission speeds through the county board supervisors in their districts, to validate our feedback of service availability by various county stakeholders. The county received data from 22 of our 30 supervisory districts. In general, the small sample size validates the pre-February 10, 2022, maps, recognizing some service level improvements.

Many of our county board members who represent the more rural areas continue to show that most of their speeds are below the 25 Mbps download and 3 Mbps upload service levels. There were seven supervisory districts with less the 25 Mbps with four supervisory districts with less than 10 Mbps download speeds, ranging from 2.07 to 7.48. It should be noted that the 7.48 was reported in an urban district, not a rural district. In addition, there were seven districts where the upload speed was less than 3 Mbps with that range from .26 to 2.82, with three districts having less than 1 Mbps upload service levels.

Two other interesting notes also came out of this quick test. First, there are several supervisors in urban districts who were below the 25 X 3 speeds or just above these speeds, which reinforced the need for all parts of the county needing broadband. There was also a board member who had difficulty, due to limited broadband, to run the speed test and it took seven attempts to be able to connect. Other partners have also done a subregion study of the county through a speed test as well. The results are similar to the results in our supervisory districts, with a median download speed of 13.68 Mbps and a median upload speed of 2 Mbps. The preliminary data also indicates there is less than 30% access to wired connections outside urban service areas with primary reliance appearing to be on fixed wireless or cellular data and in some cases satellite.

Considering this information, the county would opine that access to equitable and adequate broadband appear to be more representative by the preliminary maps published on 12/8/2021 versus the current maps that indicated there are no unserved or underserved portions in Jefferson County. The county has partnered with three different partners for this grant cycle in our attempt to carry out the primary goal of providing equitable and adequate broadband for all of Jefferson County.

Respectfully submitted,

Ben Wehmeier
County Administrator

School District of Jefferson

Empowering Futures Together

www.sdoj.org

Office of the Superintendent
206 S. Taft Avenue
Jefferson, WI 53549
(920) 675-1000
(920) 675-1020 (FAX)

Jefferson High School
700 W. Milwaukee Street
Jefferson, WI 53549
(920) 675-1100
(920) 675-1120 (FAX)

Jefferson Middle School
501 S. Taft Avenue
Jefferson, WI 53549
(920) 675-1300
(920) 675-1320 (FAX)

Sullivan Elementary School
618 Bakertown Road
Sullivan, WI 53178
(920) 675-1500
(920) 675-1520 (FAX)

East Elementary School
120 S. Sanborn Avenue
Jefferson, WI 53549
(920) 675-1400
(920) 675-1420 (FAX)

West Elementary School
900 W. Milwaukee Street
Jefferson, WI 53549
(920) 675-1200
(920) 675-1220 (FAX)

July 20, 2021

Public Service Commission of Wisconsin
Kristy Nieto, Division Administrator
Division of Digital Access, Consumer and Environmental Affairs
Hill Farms State Office Building
4822 Madison Yards Way, North Tower, 6th Floor
Madison, WI 53705

RE: Jefferson County Broadband Expansion Grant

Dear Ms. Nieto:

Because internet research and assignments are a daily part of learning, our students rely heavily on their devices. Accordingly, we need to be mindful of which students do not have internet access at home due to lack of service availability. Students without internet access are forced to either utilize class time intended for other purposes, stay after school during the week to use the school's internet, parents must bring them to the public library outside of regular school hours or choose to miss out on the opportunities available to students who have access to internet. This can be both time consuming and frustrating for the student and parents.

It is our hope that internet services will soon be expanded to cover all of Jefferson County to make learning more accessible and convenient for our students. These advances will allow all students equal opportunities for learning.

Thank you for thoughtfully considering supporting Jefferson County's grant application for expanding broadband access so that all of our families may benefit from the amazing online opportunities available to our students. I trust that you understand the importance of this expansion project for our schools. Due to the scope of the project, it will impact both rural urban areas.

I respectfully request that you give this broadband expansion project your utmost consideration for the maximum funding you may provide.

Sincerely,

Charles Urness, Ph.D., Superintendent

July 22, 2021

Public Service Commission of Wisconsin
Kristy Nieto, Division Administrator
Division of Digital Access, Consumer and Environmental Affairs
Hill Farms State Office Building
4822 Madison Yards Way, North Tower, 6th Floor
Madison, WI 53705

RE: Jefferson County Broadband Expansion Grant

Dear Ms. Nieto:

The rapid growth of technology has become part of the world of education. Students use technology daily in classrooms through school computers and tablets. This technology is used for school work and learning. Internet research has become the norm and the expectation for students in a multitude of subject areas. There are opportunities for kids to take online courses that are otherwise not available to them, but limited broadband access to our families puts them at a disadvantage, as they are unable to work from home. Right now, our students' Internet options are extremely limited and lacking. Without equal access for all of our students, they are not on a level playing field in relation to other students in the county and throughout our entire state. Dependable and consistent internet availability is an important part of our students being able to use their technology at home.

Because internet research and assignments are a daily part of learning, our students rely heavily on their devices. However, we still need to be mindful of which students do not have internet access at home due to lack of service availability. Students without internet access are forced to either utilize class time intended for other purposes, stay after school during the week to use the school's internet, parents must bring them to the public library outside of regular school hours or choose to miss out on the opportunities available to students who have access to internet. This can be both time consuming and frustrating for the student and parents.

It is our hope that internet services will soon be expanded to cover all of Jefferson County to make learning more accessible and convenient for our students. These advances will allow all students equal opportunities for learning.

Thank you for thoughtfully considering supporting Jefferson County's grant application for expanding broadband access so that all of our families may benefit from the amazing online opportunities available to our students. I trust that you understand the importance of this expansion project for our schools. Due to the scope of the project, it will impact both rural urban areas.

I respectfully request that you give this broadband expansion project your utmost consideration for the maximum funding you may provide.

Sincerely,

Ryan Jonas
Director of Technology
Palmyra-Eagle Area School District

JEFFERSON COUNTY

OFFICE OF THE COUNTY ADMINISTRATOR

311 S. Center Avenue, Room 111
Jefferson, WI 53549
Telephone (920) 674-7101
Website: jeffersoncountywi.gov

BEN WEHMEIER
County Administrator

TAMMIE J. JAEGER
Administrative Secretary

"Jefferson County: Responsible government advancing quality of life."

Steffany Powell Coker
Secretary to the Commission
Public Service Commission
North Tower, 6th Floor
Hill Farms State Office Building
4822 Madison Yards Way
Madison, WI 53705

Dear Ms. Coker,

I am writing today in support of Charter Communications (Charter) and Jefferson County's (County) joint application for a broadband expansion grant for a project within Jefferson County. Jefferson County approved Resolution No 2021-55 on March 8, 2022 which authorized the undersigned to enter into a public/private partnership with Charter. Previously, the County through its annual budget process, allocated a portion of American Rescue Plan Act towards broadband improvements. Based on this allocation and the scope of the project submission by Charter, Jefferson County has allocated $250,000 per project. The direct financial commitment by the Jefferson County demonstrates the importance of the project to the County and signifies our commitment to partnering with Charter on expanding broadband access in our County.

Jefferson County is pleased to partner with Charter, particularly considering the financial commitment offered by Charter to fund these projects that will assist in providing service to unserved and underserved locations in the county.

The project will be a joint effort between Jefferson County and Charter, with Charter acting as lead applicant and assuming responsibility for the construction and operation of the proposed network. Funds requested in this application will be used solely for the purpose of constructing and installing broadband infrastructure throughout the designated grant area.

In support of Charter's efforts to complete the project, Jefferson County will work with and assist Charter in removing obstacles that arise outside of Charter's control, such as local permitting issues, pole attachments, and access to rights-of-way and easements. To the extent it is within its scope of authority, Jefferson County would work with Charter to help remove these types of obstacles. This embodied in the policy direction through the efforts of the county being a certified as a Broadband Forward! Community and a Telecommuter Forward! Community.

This project is very important to the people of the county and will have substantial impact on this community. Extending broadband service to this project area will provide economic development benefits for small businesses, support for remote and work from home employees, support for

education system, healthcare access, impacts to quality of life and support for those individuals who could re-enter the workforce if they could resolve childcare issues by working remotely.

We are committed to partnering with Charter to help ensure that they can accomplish a project of this size within the time constraints required by the grant award. We look forward to working with Charter to deliver greater broadband access Jefferson and we respectfully request that the Public Service Commission grant the award to continue the important work of expanding broadband access in Jefferson County.

Respectfully submitted,

Ben Wehmeier
County Administrator