

Request for Proposals – FTTP Public Private Partnership

February 4, 2021

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Executive Summary

DVFiber seeks proposals from private sector firms or groups of firms (individually or severally "Partner") to form a Public / Private Partnership ("Partnership") with DVFiber that will provide Fiber to the Premises (FTTP) Internet service and Voice Over Internet Protocol ("VOIP", "Voice") service (collectively "Services") to underserved locations in DVFiber's member towns in Southern Vermont.

This document outlines a vision for the Partnership, including the specific roles and responsibilities of DVFiber and partner, and then describes in detail the scope of work, the provisional schedule, and the technical, operational, and pricing standards that shall guide execution. This document also outlines the process and timeframe for interaction between DVFiber and RFP respondents, including how questions may be asked and will be answered and how DVFiber will select proposals for further discussion and potential contract negotiation. There is a Response Form that must be completed and returned with any response. Partner may also provide additional descriptive material to detail or supplement information provided in the Response Form.

Partnership Vision

DVFiber seeks proposals from private sector firms or groups of firms (individually or severally "Partner") to form a Public / Private Partnership ("Partnership") with DVFiber that will provide Fiber to the Premises (FTTP) Internet service and Voice Over Internet Protocol ("VOIP", "Voice") service (collectively "Services") to locations in DVFiber's member towns in Southern Vermont.

DVFiber has a very clear view of the public service mission, vision, and principles that it expects to achieve in partnership with private sector partners. See Appendix A – DVFiber History and Mission for the complete statement. DVFiber will evaluate Partnership proposals to determine how closely they align with these objectives. Potential partners are encouraged to be creative in developing Partnership concepts that will achieve these objectives as quickly as possible while providing sufficient short and long-term commercial opportunities.

Partnership Roles and Responsibilities

DVFiber envisions a true partnership in which both DVFiber and Partner shall have a shared interest in delivering universal, affordable, high quality Internet and Voice service to locations that are not served adequately by incumbent providers now. DVFiber and Partner shall collaborate to ensure that the Partnership relationship is orderly, transparent, mutually beneficial, and sufficiently flexible to enable responsive adaptation to environmental changes or operating contingencies.

DVFiber shall have primary responsibility to define the scope of work and, with input from Partner, establish the technical, operational, and pricing standards that shall be attained. DVFiber shall establish the governance processes by which DVFiber shall oversee Partner's work in order to ensure that the work fulfills all requirements, conforms with all aspects of the Partnership agreement, and serves the best interest of DVFiber customers.

DVFiber shall assist in the generation of demand for Core Services, defined as Internet and Voice services, including coordination of volunteer resources to promote these services and obtain subscriptions from prospective customers. DVFiber shall cooperate with Partner to generate interest and enthusiasm in the Partnership's Core Services, particularly during the initial roll-out of service.

DVFiber shall represent the Partnership to governmental and regulatory bodies for the purpose of influencing regulatory policy.

Partner shall have primary responsibility to accomplish the scope of work by designing, engineering, constructing, marketing, operating, maintaining, and administrating a FTTP network that provides Internet and Voice services under exclusive contract with DVFiber. Partner shall provide or contract to provide all labor, materials, software, expertise, processes, tools, equipment, and any other resources necessary to fulfill these responsibilities. Partner shall coordinate all interactions with governmental authorities and public utilities that are necessary to accomplish the scope of work, with one exception: DVFiber shall arrange with

municipal authorities or private interests for easements for and access to suitable sites for central hubs and local hubs for the distribution network.

Partner shall provide all points of contact that will enable DVFiber customers to order service, coordinate installation, obtain technical support, and receive and pay invoices.

Respondents to this RFP may propose to perform some or all of the required scope of work summarized below. DVFiber will consider proposals in which

- a. one respondent fulfills the entire scope of work,
- b. two or more respondents collaborate to fulfill the entire scope of work,
- c. one respondent provides a portion of the entire scope of work, leaving the remaining scope to be performed by other vendors, or
- d. Two or more respondents collaborate to provide some but not all of the total scope.

For proposals in which two or more respondents collaborate to perform the entire scope of work, the respondents shall designate a lead respondent that will represent all of the collaborating respondents and with which DVFiber may negotiate and sign a comprehensive Partnership agreement.

For proposals to provide a selected portion of the total scope of work, DVFiber will consider whether these proposals can be coordinated with other proposals to fulfill all of DVFiber's requirements. If this is both feasible and preferable to DVFiber, DVFiber may negotiate multiple Partnership agreements.

For proposals in which two or more respondents collaborate to propose a selected portion of the total scope of work, the respondents shall designate a lead respondent that will represent all of the collaborating respondents and with which DVFiber may negotiate and sign a Partnership agreement.

Required Scope of Work

The required scope of work is divided into categories below. The minimum required scope of work is outlined for each category. Any work that is reasonably necessary to accomplish the minimum scope is included in the scope even if it is not described specifically.

Utility Pole Survey

Partner shall conduct and document a utility pole survey for a subset of towns in the District. Four towns have been surveyed to date; sixteen are included in this scope of work. The mileage and estimated pole counts are provided in Appendix C. — District Size and Demographic Characteristics. The mileage includes unserved and underserved areas of the sixteen towns plus connecting roads that run through better-served areas.

Partner shall obtain the inventory of pole locations maintained by the Vermont Department of Public Service. Partner shall validate the accuracy of the documented pole locations, modify the information based on field observation, and add information about poles not included in the inventory. Partner shall collect and report information in the format specified by VT Utility Pole Data Standard, found at https://vcgi.vermont.gov/resources/vermont-gis-standards-and-guidelines.

For each pole, the selected vendor will document the following information:

GPS coordinates
Street name
Power pole line number
Power pole number
Tel pole route
Tel pole number
Pole height
If there is a transformer or not
Pole to pole guy
Down guy
Attachments on the pole
If the pole needs an anchor or not
Photo of each pole
Photo of each pole
Number of premises served (drops) by each pole

The vendor will provide the survey results in industry standard file formats that will support network engineering analysis and GIS mapping.

Design and Engineering

High-Level Design

Partner shall produce a high-level design for DVFiber's service territory, e.g., the areas of member towns that do not have FCC minimum broadband speeds now, plus areas of member or non-member towns through which the distribution network must pass in order to create district-wide connectivity.

The high level design shall, when implemented, provide FTTP service cost-effectively to the occupied premises in member towns that are located close to utility poles but are not served by incumbent vendors at speeds equaling or exceeding 25Mbps download / 3Mbps upload.

DVFiber shall provide details of the areas to be included, including locations of premises to be served, estimated route mileage, and sites identified as potential hub sites. A summary of these details is provided in Appendix C – District Size and Demographic Characteristics and Appendix D – Proposed Hub Locations. DVFiber will collaborate with Partner to create a phased program to implement the design in all member towns in a sequence that is most technically and economically advantageous.

The high-level design shall conform with the technical standards in Appendix F – Technical Standards and shall specify the locations of central nodes, the cable routes that would extend a GPON network from these nodes to the service area, the sizing of fiber optic cable necessary to provide current and future capacity to serve all premises, connectivity from central nodes to the middle mile and long haul needs of the network, and capacity for growth to serve areas of member towns that are not included in the initial service territory. The high-level design shall divide the initial service territory into Fiber Service Areas and shall provide approximate types, costs, and locations of other gear needed to provide services such as splice cases, MSTs, splitters, handholes, and other types of material that may be required. The high-level design shall optimize use of existing aerial routes but may include limited lengths of underground routes. The high-level design shall be completed on a Geospatial Information System and shall be provided to DVFiber in a format that can be imported into other GIS systems. A numeric version of the design, listing lengths, quantities, and other specifications shall be provided in a format that is readable by Microsoft Excel.

Detailed Engineering Construction Design

Partner shall also produce a detailed network design and engineering plan for each phase of construction. The detailed design and engineering plan shall include specifications for:

- The fiber distribution network.
- Construction maps and splice charts
- Network electronics.
- The physical infrastructure and environmental systems necessary to house and support the network electronics.

- Fiber connections to customer premises ("drops").
- Customer premises equipment and cabling.

Fiber Distribution Network Construction

Partner shall construct the network infrastructure that conforms with the network design and engineering specifications. Construction shall include:

- Procurement of materials and labor required to construct fiber distribution network.
- Applications for utility make-ready as required.
- Pole review with utilities.
- Pole make-ready coordination.
- Application for pole licensing.
- Application for highway and railroad permits.
- Traffic control.
- Exterior construction of fiber distribution network.
- Construction and installation of physical infrastructure and environmental systems for network electronics including cabling connections.
- Physical installation of network electronics.
- Validation and Optical Testing

Customer Premises Installations

Partner shall install at each customer premises the fiber connection, customer premises equipment, and inside wiring that are necessary to connect the customer premises equipment (ONT and, optionally, phone) in full conformance with the network design & engineering specifications and the Technical and Operational Standards.

Partner shall install at a subset of customer premises the customer premises equipment and necessary inside wiring that are necessary to provide Voice service as described in the Appendix F - Technical Standards.

Installation shall include:

- Processes and systems for accepting, processing, and executing customer service orders.
- Procurement of all materials and labor required to complete customer premises installations.
- Receipt of customer service order and coordination of installation with customer.
- Exterior and interior site survey at customer location.
- Obtaining customer's understanding and approval of the installation plan.
- Completion of standard installation -- aerial drop, customer site electronics, inside wiring.
- Completion of non-standard installation at additional cost as required by customer.
 Non-standard installation may include longer than standard aerial drop, installation of

drop through customer-provided conduit, and/or installation of separate exterior and interior electronics.

- Quality assurance of completed installation.
- Conformance with technical and operational standards.
- Note: non-standard installation shall not include provision of conduit.

Project Management Support

Partner shall plan, schedule, budget, and obtain approval from the DVFiber Governing Board to execute the design, construction, installation, operation, technical support, customer support, and administrative support scope of work described above. Partner shall provide leadership and supervision to all resources performing the work to ensure that the work is completed according to plan. Partner shall report at regular intervals progress to completion, spending against budget, and issues requiring resolution by the Governing Board.

Network Operations

Partner's operational responsibilities shall include systems integration, operation, maintenance, and coordination of repairs of all network infrastructure, systems, and electronics and periodic replacement of components that no longer operate reliably.

Network operations shall include:

- Technical integration and quality assurance of network electronics and customer premises equipment before live service is initiated.
- Network monitoring, trouble reporting, and dispatch.
- Subscriber usage monitoring and traffic optimization.
- Maintenance and quarterly replenishment of spare component and materials inventory for network operations center.
- Second and third level technical support.
- Periodic reporting of network performance and operational performance, including conformance with technical and operational standards established by the Partnership

Technical Support

Partner shall provide multiple points of contact through which DVFiber customers can report operational problems, be engaged in the resolution process, and be informed about the status of problem resolution.

Partner shall:

- Provide telephone, chat, email, and paper mail points of contact for customers to report operational problems.
- Provide timely responses to inquiries as specified in Technical Service Standards.
- Execute first level diagnostic and remedial routines.

- Escalate non-routine issues to Operations staff.
- Inform customers about the process and status of problem resolution.
- Provide field service to accomplish outside plant and customer site troubleshooting and service restoration.
- Maintain and replenish spare component and materials inventory for outside plant and customer sites.
- Provide periodic reports of incidents and their resolution.
- Provide periodic reports of high impact or persistently repetitive problems and their resolution.

Business Development and Customer Support

Partner shall provide multiple points of contact through which DVFiber can promote its services, distribute information, receive and process service requests, issue invoices and receive payments, resolve customer's non-technical issues, and publicize special offers and events.

Partner shall:

- Coordinate with DVFiber to develop and execute marketing and sales campaigns to generate customer awareness, commitment, and satisfaction.
- Coordinate with DVFiber to determine pricing strategies.
- Provide telephone, chat, email, and paper mail points of customer contact.
- Receive and process service requests.
- Provide timely responses to inquiries as specified in Customer Service Standards.
- Issue invoices and receive payments monthly as specified in Billing Standards.
- Arrange for concessions and/or coordinate cessation of service according to policies set by the Partnership.
- Coordinate marketing initiatives with regular monthly invoicing.

Administrative Support

Partner shall designate a senior strategic coordinator and an administrative coordinator to work with DVFiber's Governing Board to provide authoritative input to strategic and governance decisions and to coordinate interaction between Partner's operational resources and the Governing Board.

Partner shall:

- Anticipate environmental, technical, operational, financial, and marketing opportunities and risks.
- Consult with DVFiber's Governing Board on technical developments, marketing opportunities, competitive challenges, logistical issues, and other topics requiring strategic planning and decision making.
- Advise DVFiber's Governing Board on major subcontracting choices and recommendations.

- Request Governing Board approval of all financial choices that may affect payments from/to DVFiber and Partner.
- Digest any other relevant operational information requested by or brought to the Governing Board.
- Provide input to annual budgets and report planned actual expenditures on a regular monthly schedule agreed upon with DVFiber's Treasurer.

Capital Funding Support

Partner shall assist DVFiber to identify sources of investment capital, understand the process and requirements for obtaining such capital, and guide the preparation of financial models and documentation necessary to obtain such capital. Partner shall designate a senior financial coordinator to perform this scope of work and to assist DVFiber's Governing Board in understanding and evaluating the sources that may be available and making the policy decisions about which sources to pursue.

Provisional Deployment Schedule

DVFiber intends to deliver service to all underserved areas of member towns as soon as possible, preferably by the end of 2024. We believe service can be delivered in two to three phases and that the first phase can be substantially completed within one year or sooner after contractual agreements are made. Estimated total fiber route miles and premises to be served and a provisional selection of Phase One towns are provided in Appendix C – District Size and Demographic Characteristics.

DVFiber will collaborate with Partner to define the final selections of areas to be included in each phase of construction and installation. The final selections of areas to be included in each phase will be driven by:

- 1. Objective: Provide service to the largest possible number of underserved premises.
- 2. Constraint: Ensure that revenue is sufficient to provide to DVFiber an EBIDTA that is always 125% or more of its debt service obligations.
- 3. Constraint: Ensure that revenue is sufficient to achieve Partner's minimum short term requirements.

Factors that may affect the choice of areas to be served in each phase include local market conditions, Partner's contractual commitments, and preferences of DVFiber's Governing Board.

RFP Response Process

Communications / Contact

Questions regarding the RFP should be directed to David Jones at <u>Clerk@DVFiber.net</u>. Questions should not be sent by US Mail. Responses to the RFP should be sent by email to the address above. Alternatively, responses may be sent by US Mail to David Jones, Clerk of the District, PO Box 131, Halifax, VT 05358.

Questions and Answers, Pre-Proposal Conference

Questions regarding the RFP should be submitted by email to the address above on or before February 19, 2021. DVFiber will answer these questions at an online Pre-Proposal Conference to be held on February 26, 2021. Additional questions may be asked during the Pre-Proposal Conference but may not be answered immediately. By March 5, 2021, DVFiber will send by email to all RFP respondents all answers to all questions received before and during the Pre-Proposal Conference.

Proposal Submission Deadline

To be considered, responses must be received by DVFiber or, if sent by US Mail, postmarked on or before March 26, 2021.

Proposal Selection Process

After reviewing the RFP responses, DVFiber will determine which proposals to select for further consideration. DVFiber will advise respondents within approximately one month whether their proposals remain under active consideration. DVFiber may contact client references provided by respondents at any time after proposals are received. DVFiber may contact respondents at any time after proposals are received to obtain additional information or to suggest modifications to the proposals as submitted. Upon completing all due diligence, DVFiber may proceed to negotiate a contract with respondent(s) that are selected.

Respondents that are not selected for further consideration will be notified by email and/or regular mail sent to the address provided in the RFP response.

The vendor selection process is anticipated to follow this timeline:

RFP Issued: February 4, 2021

Questions Deadline: February 19, 2021 Pre-Proposal Conference: February 26, 2021

Answers Deadline: March 5, 2021

RFP Response Submission Deadline: March 26, 2021

RFP Response Status Update: April 30, 2021

Contract Negotiation Complete or In Progress: May 28, 2021

Award

Any contracts that are awarded will be made to the respondent or respondents whose offer(s) is/are the most advantageous to DVFiber for reasons of scope of work to be provided; technical, operational, and pricing standards to be achieved; vendor qualifications; proposed cost; partnership requirements; or for any other reason deemed by DVFiber to be in its best interest.

DVFiber reserves the right to accept or reject any or all the responses received. A response to this RFP does not commit DVFiber to paying any costs incurred in the preparation of proposals. All costs associated with responding to this RFP are the exclusive responsibility of the respondent.

Confidentiality and Non-Disclosure

This solicitation contains confidential and proprietary information. The respondent may not disclose to anyone—other than the respondent's employees, officers, and other authorized parties directly connected to responding to this solicitation—any information concerning or contained within this solicitation without the express written consent of DVFiber. No news release, public announcement, or any other reference to this solicitation will be made without the express written consent of DVFiber. Reproduction of this RFP by photographic, xerographic, electronic, or other means is prohibited except for the purpose of preparing a response for submission to DVFiber. All information received from respondents will be kept confidential except for questions received through the process described above.

Miscellaneous

DVFiber reserves the right to modify terms, specifications and quantities prior to entering into a definitive Agreement. DVFiber's decision to enter into contract negotiations with one or more respondents does not constitute a binding agreement with respondent. A binding Agreement will only be created once final terms are agreement to and DVFiber and respondent enter into a definitive Agreement.

RFP Response Requirements

Respondent shall complete the attached Response Form in full and may provide additional descriptive material to amplify or detail information provided in the Response Form.

Respondent shall agree to the terms and conditions stated below which will govern responses to this Request for Proposals and any contract to which the District and Partner may agree. If respondent does not agree with any of these terms and conditions, respondent should state its objection and propose an alternative. Additional terms and conditions may be included in the definitive Agreement.

Terms and Conditions

A. Contract Duration

Prices quoted for services to be provided by or contracted through respondent's organization shall be valid for the period defined as Phase One in Appendix C: District Size and Demographic Characteristics. Modifications to prices quoted for services shall be determined through the process described in RFP Response Form Section 6.

B. Expenses

All costs and expenses incurred by respondent(s) to prepare, develop, and/or submit a proposal or participate in any presentation or negotiation leading to a definitive agreement shall be borne exclusively by respondent(s) regardless of whether or not any respondent's proposal is accepted. No such costs or expenses may be included in any costs quoted for the scope of work that is proposed.

C. Response Preparation

Respondent's proposal must contain all the information specifically required by this RFP or must acknowledge any information that is not applicable or is otherwise omitted. A cover letter accompanying your proposal must be signed by an authorized representative of your organization. DVFiber reserves the right not to consider any additional information or materials not included in or submitted with your proposal. DVFiber also reserves the right to consider any additional information relevant to the project, this RFP, and the respondent.

DVFiber may, from time to time, issue one or more addenda to this RFP. All proposals must include an acknowledgment of the receipt of any addendum that has been issued by DVFiber or must state that no addenda have been received.

Your response should clearly state the ability of your organization to satisfy the requirements defined in this document. In addition, you should provide your most aggressive pricing related to the various components of this RFP. It is the intent of DVFiber to use this pricing both as a

criteria in the ultimate decision regarding the selection of a Consultant and as a part of the determination of the budget for the project.

D. Proposal Evaluation and Negotiation

This RFP is designed to enable DVFiber to determine which proposal(s) will best align with DVFiber's mission and requirements. Each proposal will be evaluated against the same set of criteria and will be assigned a score for each category in the evaluation. The categories associated with the evaluation are 1) scope of work proposed; 2) conformance with DVFiber technical, operational, and pricing standards; 3) vendor qualifications; 4) proposed capital and operating costs; and 5) proposed deal structure. Based on this evaluation, DVFiber will select respondents for further consideration as descried in the RFP Response Process section above.

E. Proposal Effectiveness

Your response to this RFP will constitute a firm offer to provide the services described at the price that is proposed. All responses must be accompanied by a cover letter signed by a company officer who is authorized to extend the offer. DVFiber may choose to accept the offer as provided or negotiate with one or more selected respondents to amend their proposals for mutual benefit. If DVFiber accepts the offer as provided, the parties shall enter into a definitive Agreement with the terms of that offer.

F. Acceptance or Rejection

Nothing contained in this RFP or implied by the proposed evaluation process outlined in this document creates any obligation on the part of DVFiber to select any proposal for the requested services. DVFiber reserves the right at its sole discretion to select any proposal on any basis that it deems appropriate (whether or not such basis is price), to decide not to select a proposal, or to otherwise modify its approach to the project.

G. Other Required Contract Provisions

The following provisions required by the state of Vermont shall be included in the contract awarded to the selected respondent:

1. False Claims Act: The Respondent acknowledges that it is subject to the Vermont False Claims Act as set forth in 32 V.S.A. § 630 et seq. If the Respondent violates the Vermont False Claims Act it shall be liable to the State for civil penalties, treble damages and the costs of the investigation and prosecution of such violation, including attorney's fees, except as the same may be reduced by a court of competent jurisdiction. The Respondent's liability to the State under the False Claims Act shall not be limited notwithstanding any agreement of the State to otherwise limit Respondent's liability.

- 2. Whistleblower Protections: The Respondent shall not discriminate or retaliate against one of its employees or agents for disclosing information concerning a violation of law, fraud, waste, abuse of authority or acts threatening health or safety, including but not limited to allegations concerning the False Claims Act. Further, the Respondent shall not require such employees or agents to forego monetary awards as a result of such disclosures, nor should they be required to report misconduct to the Respondent or its agents prior to reporting to any governmental entity and/or the public.
- 3. Fair Employment Practices and Americans with Disabilities Act: Respondent agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable. Respondent shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Respondent under this Agreement.

4. Taxes Due to the State:

- A. Respondent understands and acknowledges responsibility, if applicable, for compliance with State tax laws, including income tax withholding for employees performing services within the State, payment of use tax on property used within the State, corporate and/or personal income tax on income earned within the State.
- B. Respondent certifies under the pains and penalties of perjury that, as of the date the proposal is signed and the date any definitive Agreement is signed, the Respondent is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.
- 5. Child Support: (Only applicable if the Respondent is a natural person, not a corporation or partnership.) Respondent states that, as of the date this Agreement is signed, he/she:
 - A. is not under any obligation to pay child support; or
 - B. is under such an obligation and is in good standing with respect to that obligation; or
 - C. has agreed to a payment plan with the Vermont Office of Child Support Services and is in full compliance with that plan.

Respondent makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Respondent is a resident of Vermont, Respondent makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

6. No Gifts or Gratuities: Respondent shall not give title or possession of anything of substantial value (including property, currency, travel and/or education programs) to any officer or

employee of the State (as defined in 32 V.S.A. § 630(8)) during the RFP process or the term of the definitive Agreement.

7. Certification Regarding Debarment: Respondent certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, neither Respondent nor Respondent's principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible or excluded from participation in Federal programs, or programs supported in whole or in part by Federal funds.

Respondent further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Respondent is not presently debarred, suspended, nor named on the State's debarment list at: http://bgs.vermont.gov/purchasing/debarment

- 8. Facilities: If DVFiber makes space available to the Respondent in any facility during the term of the definitive Agreement for purposes of the Respondent's performance under such Agreement, the Respondent shall only use the space in accordance with all policies and procedures governing access to and use of such facilities which shall be made available upon request. If such provision is made, facilities will be made available to Respondent on an "AS IS, WHERE IS" basis, with no warranties whatsoever.
- 9. COVID-19: During the declared State of Emergency for COVID-19, the respondent shall comply with all applicable federal, State and local rules and guidelines.
- 10. Indemnification: It is expressly understood that the respondent shall indemnify and hold DVFiber harmless from any claims, suits, actions, damages, and costs of any kind arising out of, or resulting from, the respondent's acts or omissions in its performance of the work to be performed under the definitive Agreement.
- 11. Requirements Pertaining Only to State-Funded Grants:
 - A. Certification Regarding Use of State Funds: If Respondent is an employer and the services provided under the terms of a definitive Agreement are supported by a Statefunded grant in excess of \$1,001, Respondent certifies that none of these State funds will be used to interfere with or restrain the exercise of Respondent's employee's rights with respect to unionization.

(End of Standard Provisions)

Appendices

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Appendix A: DVFiber History and Mission

History

- Vermont established Communications Union Districts (CUDs) as legal municipalities through legislation in 2015. The legislation provided a clear outline for CUD formation and management, based on the experience of ECFiber, which until 2015 had operated as an interlocal cooperative.
- Additional legislation in 2019 provided for planning grants, start-up financing, and technical support resources.
- Following this enabling legislation, DVFiber was one of seven CUDs to form in 2020, increasing the total number of Vermont CUDs from two to nine.
- Five towns voted to form the Deerfield Valley Communications Union District (trade name: DVFiber) in March, 2020. DVFiber has now grown to include twenty towns in three counties. We are actively seeking to add additional towns. DVFiber is also in contact with Southern Vermont Communications Union District, also known as Catamount Fiber, to identify possible paths for collaboration.
- A map of all Vermont CUDs can be found at https://publicservice.vermont.gov/content/vermont-communications-union-districts.
- Before DVFiber was formed, the Windham Regional Commission (WRC) had partnered with ValleyNet and Rural Innovation Strategies, Inc. to obtain grant funding for a feasibility study and business plan for a CUD serving Windham County. After DVFiber was formed, the WRC planning team coordinated with DVFiber to ensure the plan was focused on our future. The WRC plan can be found at http://www.windhamregional.org/broadband. Note: DVFiber has added five towns since the plan was published.
- DVFiber has received planning grants from the Vermont Department of Public Service, the Vermont Community Foundation, and the Brattleboro Development Credit Corporation. Additional grant applications are pending.
- To date, DVFiber has been managed entirely by a Governing Board of unpaid Representatives and Alternates from member towns and additional volunteers, all of whom contribute substantial business, technical, political, and non-profit management experience to the enterprise. In the long term, the Governing Board will act as a Board of Directors to set broad policy and monitor execution.
- Please refer to Appendices B, C, D, and E for detailed information about the District, including the intended geographic scope of service, district size and demographic characteristics, proposed hub locations, and take rate indicators.

Mission, Vision, and Principles

Mission

To provide affordable, reliable high-speed Internet service that will support economic development and expand educational opportunities within the district.

Vision and Principles

Overview: The Internet is an essential service for every Vermonter. The future of our communities' health depends on closing the digital divide and driving economic diversity. Our vision and principles are our core beliefs in setting a course to provide access to not just some but to all.

Principles

Equity: No one should face a barrier based on where they live. Priority installation will be given to unserved or underserved areas.

Performance: The Internet should be fast and reliable and the quality should improve over time as uses of the Internet continue to evolve. Our network should be capable of at least gigabit-per-second service to all fixed locations, with substantial additional capacity for future demand and flexibility to support rapid deployment of new technologies.

Affordability: Cost should not be a barrier for any Vermonter who wants to connect to the Internet. The network design minimizes capital and operating costs, has a long, useful lifespan, and provides low-cost upgrade paths to meet future demands or accommodate new technologies. The system should provide diverse service level options for residential and business connectivity.

Reliability: The network design should reflect the best industry practices for Vermont's unique topography, partnering networks, and requirements of users. The infrastructure will be reliable and resilient, designed to withstand equipment failures, power outages, natural disasters, or man-made disasters.

Privacy: Vermonters must be able to determine how their data are or are not used. Our network will support net neutrality. The network's components will be secured against physical and electronic threats.

Note: Full details of DVFiber's history and mission can be found at https://dvfiber.net .

Appendix B: Geographic Scope of Service

DVFiber exists to provide affordable, reliable, high-speed service to every area of our member towns that do not have such service now.

- DVFiber has grown from 5 towns initially to 20 towns today, including Brattleboro, Dover, Dummerston, Guilford, Halifax, Jamaica, Londonderry, Marlboro, Newfane, Putney, Readsboro, Stamford, Stratton, Vernon, Wardsboro, Weston, Westminster, Whitingham, Wilmington, and Windham.
- DVFiber intends to extend service to member towns in multiple phases. The first phase is expected to include towns with the highest percentages of occupied premises that are underserved or unserved today. Subsequent phases will include towns with a high number of underserved or unserved premises and/or towns with smaller numbers of underserved or unserved premises that are adjacent to large numbers of such locations in adjoining towns.
- Partnership proposals should commit to a specific, concrete program to extend service to all areas of current member towns that do not have broadband today, e.g., are not served by incumbent cable or fiber providers. Appendix C, District Size and Demographic Characteristics, provides detailed information about these uncabled areas. Proposals that commit to serve only selected portions of the District's service area, leaving unspecified the plans for other portions of the area, will not be viewed favorably. The scope of Partner's proposal shall include all current towns and all additional towns that join the District after this RFP is issued but prior to submission of the proposal.
- In most cases, the construction program within each member town, including building the distribution network and extending service to customer premises, shall be completed in a single phase or in closely contiguous phases so that the count of underserved or unserved premises in that town is reduced to zero within a realistically short time window. Proposals to serve some portions of a town much later than other portions will not be viewed favorably except when a portion is adjacent to a large concentration of underserved or unserved premises in another town to which the network will be delivered in an earlier or later phase.
- Some segments of the distribution network will unavoidably run though areas that are already cabled. In addition, a commercial partner may aspire to compete with incumbent providers that provide broadband speeds in cabled areas. The construction program proposed in response to this RFP shall focus primarily on practical steps for providing service to areas that are not served by cable or fiber providers. Proposals to focus on serving already cabled areas first and underserved areas second will not be viewed favorably.

Appendix C: District Size and Demographic Characteristics

DVFiber currently comprises 20 towns that, according to the Vermont Department of Public Service, have a total of 7,341 occupied premises that do not have broadband speeds of at least 25Mbps download / 3 Mbps upload now, e.g., do not have cable or fiber optic connectivity.

Publicly available information about these towns follows below. In summary, the local residents are economically average for Vermont and the proportion of non-resident second-homeowners is very high, as indicated by the ratio of population to premises and the proportion of premises that are homesteads.

For the 20-town area, the total population was 36,432 in 2019, or roughly 1.5 persons per each of the 24,430 occupied premises.

Of the total taxable real estate parcels in these towns, 36% are homesteads, e.g., they are primary residences. These homesteads account for 39% of total grand list value. Average annual income for residential households is \$57,882; average median family income is \$66,851. These amounts are comparable to Vermont state averages.

Of the remaining real estate parcels, properties owned by non-resident individuals account for 38% of total grand list value. The region provides recreational and leisure opportunities within driving distance of locations in Massachusetts, Connecticut, and New York, including the Boston and New York metropolitan areas. We believe that second-homeowners are, on average, more economically advantaged than permanent residents.

Corporate properties account for the remaining 23% of total grand list value.

DVFiber has provisionally selected 6 of its 20 towns to be included in Phase One of construction. These towns are Stamford, Readsboro, Whitingham, Halifax, Marlboro, and Wardsboro. Also included in Phase One will be central hubs provisionally located in Wilmington and Jamaica. Although the selection of Phase One towns can be changed, we will use this selection as the basis for responses to this RFP.

Key characteristics of the Phase One towns (* denotes non-public information):

Uncabled premises: 4,089

Uncabled premises within 400 ft. of utility pole (*): 3,751

RDOF locations, excluding Starlink awards: 1,084

Miles of roads: 329 miles

Miles of uncabled roads for which pole surveys are not complete (*): 117 miles

Additional state highway connecting to two central hub locations: 35 miles

Key characteristics of remaining 14 towns not included in Phase One (* denotes non-public information):

Uncabled premises: 5,648

Uncabled premises within 400 ft. of utility pole (*): 4,543

RDOF locations, excluding Starlink awards: 522

Miles of uncabled roads (*): 361 miles

Miles of uncabled roads for which pole surveys are not complete (*): 361

Additional state highway connecting to two hub locations: 75 miles

Cabled premises (as of year-end 2019) (*): 17,332

Miles of cabled roads, including state highway mileage noted above (*): 662.9

Sources: Vermont AOT, Vermont DPS, FCC, DVFiber analysis

Consolidated Demographic Statistics for DVFiber Service Area

				TO FOR										0,00
				AOI CIASS										2018
				123 &		Other			Town	In-State,	Out-of-		2018 Avg	Median
		DPs		State		State	Local	Resident	Resident	Non-Res	State %	Corp %	Hhld	Family
	DPS	Buildings	2019	Highway	Route 91	Highway	Road	79 %	% Total	% Total	Total GL	Total GL	Gross	Gross
Town	Buildings	< 25/3	Population	Miles	Miles	Miles	Miles	Parcels	GL Value	GL Value	Value	Value	Income	Income
Brattleboro	4,700	133	11,332	107.2	0.9	16.3	91.0	%95	48%	3%	2%	44%	\$56,360	\$59,459
Dover	2,040	372	1,059	64.1		5.5	58.5	11%	14%	1%	%29	18%	\$47,841	\$64,734
Dummerston	972	322	1,744	79.2	5.9	10.4	8.89	989	71%	%9	12%	10%	\$75,169	\$85,863
Guilford	1,162	251	2,109	7.77	3.9	8.9	70.9	61%	77%	4%	10%	%6	\$66,644	\$71,143
Halifax	616	607	681	70.7		5.8	64.8	42%	25%	2%	39%	4%	\$53,768	\$49,057
Jamaica	1,130	456	1,028	64.1		14.7	49.5	23%	32%	4%	54%	11%	\$45,891	\$54,445
Londonderry	1,411	226	1,656	67.5		15.2	52.3	33%	38%	3%	47%	12%	\$59,460	\$63,945
Marlboro	623	208	1,039	63.0		8.3	54.7	43%	61%	3%	722%	11%	\$65,131	\$72,090
Newfane	1,106	326	1,586	9.69		5.7	64.0	42%	%95	4%	23%	17%	\$61,451	\$71,722
Putney	1,154	384	2,456	66.2	5.5	0.9	60.2	22%	24%	3%	%9	37%	\$66,115	\$65,916
Readsboro	545	486	722	45.9		10.0	35.9	31%	38%	3%	22%	37%	\$46,995	\$56,653
Stamford	493	393	808	23.5		5.8	17.7	42%	75%	2%	19%	7%	\$68,459	\$76,544
Stratton	630	259	198	29.0		1.3	27.7	2%	2%	1%	%08	14%	\$84,575	\$100,084
Vernon	882	49	2,196	37.0	2.7	8.9	28.1	%99	45%	1%	1%	23%	\$60,054	\$79,411
Wardsboro	872	791	834	54.0		7.4	46.6	72%	39%	7%	25%	%/	\$45,173	\$55,022
Westminster	1,621	163	2,970	88.3	9.1	9.5	78.8	28%	28%	4%	8%	30%	\$56,704	\$66,331
Weston	634	109	544	48.9		10.7	38.3	32%	47%	7%	44%	2%	\$80,736	\$76,238
Whitingham	979	810	1,277	71.6		12.3	59.5	37%	40%	4%	78%	27%	\$53,139	\$59,972
Wilmington	2,408	203	1,796	81.8		14.5	67.4	17%	72%	7%	29%	13%	\$47,662	\$59,333
Windham	449	193	396	32.3		0.4	32.0	27%	39%	7%	45%	12%	\$45,505	\$49,058
Total	24,430	7,341	36,432	1,241.5	33.2	175.3	1,066	36%	39%	3%	36%	73%	\$57,882	\$66,851

Appendix D: Proposed Hub Locations

<u>Town</u> Brattleboro	Hub Description TBD. most likely fee	Hub Location d from surrounding Phase 1 towns	911 Address
Dover	Primary	Town Garage	15 LANDFILL ROAD
	Alternate	West Dover Fire Dept.	253 ROUTE 100
Dummerston	Primary	Dummerston Fire Dept., Center Station	1049 EAST-WEST RD
	Alternate	Dummerston Town Office	1523 MIDDLE RD
	Second Alternate	West Dummerston Fire Dept.	226 WEST ST
Guilford	Primary	Town Office	236 SCHOOL RD
	Alternate	Guilford Central School	374 SCHOOL RD
Halifax	Primary	Town Office	246 BRANCH RD
	Alternate	Town Garage	2044 BRANCH RD
Jamaica	Primary	Town Garage	38 TOWN SHED RD
	Alternate	Town office	28 TOWN OFFICE RD
Londonderry	Primary	Town office	100 OLD SCHOOL ST
	Alternate	Fire Station	5862 ROUTE 100
Marlboro	Primary	Fire house	779 SOUTH ROAD
	Alternate	Town Office	510 SOUTH ROAD
Newfane	Primary	Newbrook Fire station	698 ROUTE 30
	Alternate	Sheriff's office	11 JAIL ST
	Second Alternate	Highway Garage	36 DEPOT RD
Putney	Primary	Fire station	21 CARL SNYDER DR
Readsboro	Primary	Fire Dept.	122 SCHOOL STREET
	Alternate	Town Office/School	301 PHELPS LANE
Stamford	Primary	Fire Station	142 STEBBIN LN
	Alternate	Town Office	986 MAIN RD
Stratton	Primary	Town Hall	688 STRATTON-ARLINGTON RD
	Alternate	Town Office	9 W JAMAICA RD
Vernon	Primary	Town Office	567 GOVERNOR HUNT RD
	Alternate	Fire Station	2842 FORT BRIDGMAN RD
Wardsboro	Primary	Wardsboro Elementary School	70 SCHOOL RD
Westminster	Primary	Town Hall	3651 US-5
Weston	Primary	Town garage	48 GREENDALE ROAD
	Alternate	Wilder Memorial Library	24 LAWRENCE HILL ROAD
Whitingham	Primary	Twin Valley Middle School	4299 ROUTE 100
	Alternate	Town Hill	564 TOWN HILL ROAD
Wilmington	Central	Old High School	1 SCHOOL STREET
	Primary	Deerfield Valley Rescue	22 STOWE HILL ROAD
	Alternate	Town garage	21 HAYSTACK ROAD
Windham	Primary	Town Office	5976 WINDHAM HILL ROAD

Appendix E: Take Rate Indicators

DVFiber expects to achieve take rates similar to those experienced by ECFiber in recent years. The Business Plan includes the following table of estimated residential penetration by year for areas that are cabled and uncabled now. Penetration is projected to grow 3% annually in cabled and uncabled areas after year 4. Source:

http://windhamregional.org/images/docs/community-dev/Broadband-Business-Plan-Windham-Region.pdf .

Year	Cabled	Uncabled
1	11.0%	22.0%
2	17.9%	35.8%
3	22.0%	44.0%
4	24.8%	49.5%

These estimates are defined as percentages of E911 addresses that are occupied premises. This subset of total E911 addresses is the same as used by the Vermont Public Service Department when reporting broadband penetration by town. Note that a multi-family address at one E911 address is counted as one occupied premise.

The take rate is influenced by the service/price tiers that are offered. DVFiber assumes that the Partnership will offer very similar tiers as ECFiber. The table below provides the service/price tiers offered by ECFiber, the prices charged by ECFiber, and the percentages of customers currently consuming each tier. ECFiber reports that customers are choosing higher service/price tiers now, during the Covid-19 health crisis, than they did in recent years. Customers have found the lower tiers to be less useful in households that are conducting concurrent sessions of distance learning, telehealth, remote workplace, and streaming entertainment. ECFiber believes that customers on average will not revert to lower service/price tiers if and when the Covid-19 health crisis is over.

Option	Speed	Price	Percent of Customers
Basic	50/50Mbps	\$72/mo	61.0%
Standard	200/200Mbps	\$104/mo	29.0%
Ultra	800/800Mbps	\$164/mo	10.0%

Survey Information

In late February 2020, before the Covid-19 health crisis had widespread effects, the Windham Regional Commission (WRC) coordinated a survey of broadband demand in its member towns. Although surveys may overestimate demand, particularly if price sensitivity is not assessed fully, surveys can indicate the intensity and depth of demand, particularly in areas that lack fully functional broadband services today.

The window for completing the survey was one month. Response rates were driven by consumer interest in getting better service and efforts by local activists to encourage participation from local residents and non-residential property owners.

Across all towns that were surveyed and are now members of DVFiber, the response rate was 20% on average measured against the total number of occupied buildings. The response rate ranged from 8% to 39%, depending on the quality of current service (e.g., percent of buildings with speeds of less than 25/3 Mbps), the percent of buildings that are full time residences, and the effectiveness of local Broadband Committees. Where a very low percent of buildings lack high-speed connections, the response rate was many times the locations having low speeds. This suggests that even those customer that have high-speed connections now are interested in alternatives to their current providers.

		Total	Full Time	Occ Bldgs	< 25/3 Mbps	S	urvey Respor	ises
	Full-Time	Occupied	% of	@ Speeds	% of Occupied	Raw	% of Total	% of Occ
Town	Residences	Buildings	Occupied	< 25/3 Mbps	Buildings	Count	Occ Bldgs	<25/3
Halifax	263	616	43%	607	99%	240	39%	40%
Wardsboro	225	872	26%	791	91%	252	29%	32%
Readsboro	229	545	42%	486	89%	117	21%	24%
Whitingham	407	979	42%	810	83%	346	35%	43%
Marlboro	258	623	41%	508	82%	99	16%	19%
Stratton	72	630	11%	259	41%	142	23%	55%
Jamaica	276	1,130	24%	456	40%	126	11%	28%
Dummerston	624	972	64%	322	33%	244	25%	76%
Guilford	616	1,162	53%	251	22%	210	18%	84%
Dover	368	2,040	18%	372	18%	170	8%	46%
Weston	210	634	33%	109	17%	124	20%	114%
Londonderry	509	1,411	36%	226	16%	296	21%	131%
Westminster	915	1,621	56%	163	10%	502	31%	308%
Vernon	611	885	69%	49	6%	223	25%	455%
Brattleboro	2,481	4,700	53%	133	3%	596	13%	448%
Surveyed CUD Towns	8,064	18,820	43%	5,542	29%	3,687	20%	67%

Information Sources

Full Time Residences: https://tax.vermont.gov/sites/tax/files/documents/HSNR Counts2019 24.xlsx

Total Occupied Buildings and Occupied Buildings with Internet speeds of less than 25/3Mbps:

https://publicservice.vermont.gov/sites/dps/files/documents/Connectivity/BroadbandReports/2020/BroadbandSt atistics 2020 02202020.xlsx

Survey responses: http://windhamregional.org/images/docs/community-dev/Broadband-Survey-Results.pdf

(Continued)

The key finding was that area residents are highly interested in obtaining true high-speed broadband service. On average, 60% of respondents "Definitely Would" subscribe to competitively priced fiber to the home service and 28% "Probably Would."

The percent of residents who definitely would subscribe was highest in partially cabled resort towns (e.g., Stratton, Dover) and in non-resort towns that currently have little to no access to high-speed service (e.g., Halifax, Whitingham).

The lowest interest in definitely subscribing was in Vernon, a town that is 94% cabled. But even in Vernon, 67% of respondents said they definitely or probably would subscribe.

Interest Is F	ligh Across A	II Curren	t Speeds	
	% of Occupied	How Lik	ely To Sub	scribe?
	Buildings			
Town	< 25/3 Mbps	Definitely	Probably	Total
Halifax	99%	68%	23%	90%
Wardsboro	91%	62%	28%	90%
Readsboro	89%	66%	23%	89%
Whitingham	83%	68%	26%	95%
Marlboro	82%	57%	27%	84%
Stratton	41%	74%	20%	94%
Jamaica	40%	63%	29%	91%
Dummerston	33%	59%	31%	91%
Guilford	22%	58%	29%	87%
Dover	18%	71%	22%	92%
Weston	17%	60%	30%	90%
Londonderry	16%	62%	28%	90%
Westminster	10%	64%	25%	89%
Vernon	6%	36%	30%	67%
Brattleboro	3%	52%	33%	84%
Surveyed CUD Towns	29%	60%	28%	88%

(Continued)

Interest in subscribing to high-speed fiber to the premises was high across users of all technologies available in our region now. Respondents self-reported the services in use. Interest was highest among users of Satellite, DSL, and Fixed Wireless. More than half of current users of Cable internet said they definitely would switch. Of the few users of fiber in our service area (1% of total respondents), more than half said they definitely would switch.

Interest Is High	Across All Tec	hnologies U	Ised Now	
		V	Vould Subscrib	e
Technologies Respondents	Percent of			Definitely +
Use Now in Member Towns	Respondents	Definitely	Probably	Probably
DSL	26%	67%	24%	91%
- DSL combined with others	38%	67%	24%	91%
Cable	18%	53%	32%	85%
- Cable combined with others	33%	52%	33%	85%
Satellite	4%	77%	12%	89%
- Satellite combined with others	5%	77%	13%	89%
Fixed Wireless	2%	67%	26%	93%
- Fixed Wireless combined with others	3%	69%	24%	93%
Mobile Wireless	2%	60%	30%	90%
- Mobile Wireless combined with others	3%	55%	32%	86%
Fiber	1%	51%	17%	68%
- Fiber combined with others	1%	53%	14%	67%
Blank	8%	55%	31%	86%
All Technologies	100%	60%	28%	88%

(Continued)

Survey respondents also self-reported whether they currently subscribe to Satellite TV and whether they currently purchase internet bundled with Phone and TV.

Of the 25% of respondents who subscribe to Satellite TV, 69% definitely would switch to a competitively priced fiber service, significantly higher than average. These users are a prime marketing opportunity because they can both improve service quality and reduce cost by streaming video services online. Of the 15% of respondents that don't subscribe to Satellite TV but do purchase a "triple play" of internet, voice, and TV now, 41% say they definitely would subscribe to a competitive fiber service. We will need to either offer a "triple plan" product or to train these customers on how to substitute unbundled streaming services for the services available in their current bundle.

Sensiti	vity to Cu	urrent B	undling	and Sate	llite TV U	se	
	Pe	rcent of 1	otal Respo	ondents			
Currently		Currently	Bundle Se	ervices Wit	th Internet		
Subscribe to			Phone				
Satellite TV	Phone	TV	and TV	Neither	(blank)	Total	
Yes	12%	1%	3%	9%	0.4%	25%	
No	19%	10%	15%	23%	0.4%	67%	
(blank)	0.3%	0.1%	0.3%	0.1%	6%	7%	
Total	31%	11%	18%	32%	7%	100%	
Percent Who Definitiely Would Subscribe							
Currently	ly Currently Bundle Services With Internet						
Subscribe to	Phone						
Satellite TV	Phone	TV	and TV	Neither	(blank)	Total	
Yes	66%	68%	67%	76%	67%	69%	
No	61%	59%	41%	64%	38%	57%	
(blank)	64%	64%	64%	64%	64%	64%	
Total	63%	60%	46%	67%	56%	60%	

Appendix F: Technical Standards

DVFiber intends that the Partnership will deliver fiber to the premises at every underserved location in all member towns, with rare exceptions as described below.

High Level Design / Engineering Plan

DVFiber expects the Partnership will deploy a network that conforms with the following standards:

- Gigabit Passive Optical Network (GPON) architecture for residential and small business use.
- Spare fiber strands set aside for future direct connections from local hubs to serve large commercial businesses or to provide service to cell towers.
- Sharing of optical feeder and port on the Optical Line Terminal (OLT) among as many subscriber terminals as possible, typically 28 subscribers per OLT port plus 4 spares.
- Attachment of distribution fiber and customer drops on existing utility poles located at the roadside or in easements on private property.
- Passive optical splitters to terminate the fiber and provide the optical connection to the Optical Network Terminal (ONT) at the customer premises.
- Not less than two central hub locations to provide routing redundancy, one each in Southern and Northern areas of the District, most likely in Wilmington and Jamaica. (Note: If DVFiber coordinates with Southern Vermont CUD, the Northern hub could be located in North Manchester or Dorset).
- Local hub locations in many member towns as determined by distance requirements and the number of required local connections. (Note: Most likely locations for central and local hubs are listed in Appendix D – Proposed Hub Locations.)
- Not less than 12 hours of battery back-up in each hub.
- Optical line terminals (OLT) in each hub connecting to splitters in the field and connecting to each other in a ring topology.
- Tactical use of dark or lit middle-mile fiber provided by electric utilities such as GMP and VELCO, or commercial carriers such as Consolidated Communications or FirstLight to cover longer distances between service areas where this is economically preferable.
- Diverse and redundant connections to backhaul providers and concentration to ensure resilient connection to the internet.

- Diverse backhaul connections to major co-location centers in two to three cities with sufficient upstream capacity and peering arrangements to support the peak load of DVFiber customers.
- Connections to the premises and installation inside each premises at nominal cost, provided that the connection from the nearest utility pole is aerial and up to 400 feet in length.
- Connection to the premises and installation inside each premises at cost in cases where the connection is run through conduit and/or is longer than 400 feet in length.
- Installation of standard optical network terminal (ONT) with power cord, backup battery capable of 12 hours of service, standard wireless router, and all required inside wiring at each connected premise. Wireless router may an internal component of the ONT is housed indoors or a separate external device connected to the ONT over ethernet if the ONT is housed outdoors.

In rare cases in which the length of distribution fiber is exceptionally long relative to the number of premises served, DVFiber will have the option of deferring construction until a later phase or considering other technical options proposed by the Partner.

The network design will have sufficient flexibility to support substantial economic growth and a corresponding increase in the number of occupied premises by overlashing additional fiber from the hub to the additional locations and/or shortening distances between splitters.

IP Addresses

Partner shall have the ability to provide each customer with a dynamic IP address by default or a static IP address if requested as part of a value-added service tier. Both addressing types shall have automatic redundancy provided by at least two properly sized high availability servers in different physical locations. IP address servers shall be sized so that any one of the servers can handle the entire worst-case demand alone. IP address servers should be configured to ensure automatic fail-over without manual intervention. ISP/NO shall institute automatic monitoring and notification of problematic IP address servers to ISP/NO staff/employees so that issues may be resolved promptly. During essential maintenance windows, at least one IP address server shall be on-line and available at all times. The ISP/NO shall manage domain name resolution so that assigned IP addresses have fully consistent forward and reverse lookups. The network will not exclude access to any Internet content or block any network ports, except when required to deal with network security incidents.

Net Neutrality

DVFiber supports Net Neutrality. Partner shall not prioritize or deprioritize any class of network traffic including value-added services provided by Partner.

Network Operations

Partner shall provide continuous network monitoring, troubleshooting, and dispatch 24/7/365 from diverse network operations centers (NOCs). Each NOC premises shall have security controls and environmental systems that provide physical security, continuous power, climate control, and fire suppression.

Partner shall take all necessary measures to prevent network security breaches and to detect, mitigate, and report security threats to its systems or the network including denial of service attacks to or from customers. Partner shall report potential and actual security breaches to DVFiber as soon as practical and not later than seven business days after any recorded incident.

Partner shall maintain spare equipment and up-to-date backups of all operating systems, software, and data to enable full recovery from any service interruption.

Partner shall hold customer data in confidence and may use such data only for the purpose of providing service and invoicing and collecting payments for service. Provider shall not sell or disclose customer information to any third party without the explicit written permission of the DVFiber Governing Board and the explicit written permission of the customer, which must be obtained through an opt-in process approved by the DVFiber Governing Board.

Voice Services

Partner shall have the ability to manage routing of telephone calls throughout the public switched telephone network (PSTN) and interconnection points of the PSTN with the Internet Protocol (IP) realm.

Voice service shall include an adapter for connection of analog telephones.

Appendix G: Operational Standards

DVFiber expects the Partnership to deliver a consistently high quality of customer experience. This experience will be determined by both the design and implementation of the technical infrastructure and the capability and culture of the service organization that will interact with customers.

The dimensions of our customers' experience include ease of order placement, timely installation, consistent speed at the contracted speed tier, uninterrupted uptime, timely resolution of reported problems, and ease of interaction with customer service and technical service representatives.

Partnership proposals should indicate agreement to conform with the specific standards of performance outlined below or shall propose alternative standards of performance that Partner believes will be more beneficial to customers.

Normal Performance Standards

Busy Hour Period: The Busy Hour period shall be defined as the continuous four hours of peak usage by all DVFiber customers combined in the average week for the previous 52 weeks. The FCC designated 19:00-23:00 as the peak usage period before the Covid-19 pandemic. Partner shall use the most recently designated FCC period until a different Busy Hour Period is identified for DVFiber customers.

Performance Measurement: At minimum, performance shall be measured for a statistically significant number of customer locations chosen by DVFiber. Partner agrees to use the management systems that are embedded within their fiber distribution management system to measure, analyze, and report performance or a third party system that has similar functionality. Customer site performance shall be measured the endpoint of the Optical Network Terminal. Performance WiFi connectivity between the ONT and the customer's devices may also be monitored and reported.

Minimum Speed: Partner shall provide symmetrical download and upload speeds at or above (not up to) the contracted speed in each speed/price tier at all times.

Speed Variation: The consistent download and upload speeds achieved by at least 80% of customers 80% of the time shall be n% of the contracted speed, where n% is the percentage reported during the Busy Hour period for all fiber providers combined in the most recent FCC Measuring Broadband America survey ("FCC survey," "survey"). In the most recent survey of performance in 2018, n was 94.8% for download speeds and 105.8% for upload speeds.

Latency: Median UTP latency shall be not more than the upper bound of the 95% confidence interval for latency during the Busy Hour period reported for all fiber providers combined in the most recent FCC survey. In the most recent survey, the 95% upper bound was 11.56ms.

Packet Loss: Average packet loss shall be not more than the upper bound of the 95% confidence interval for packet loss during the Busy Hour period reported for all fiber providers combined in the most recent FCC survey. In the most recent survey, the 95% upper bound was 0.11%.

Normal Service Standards

Partner shall post hours of normal operation for technical and non-technical customer support.

At minimum, Partner shall provide methods for customers to contact technical and customer service agents by secure online customer portal, telephone, email, and postal mail.

The secure customer portal shall enable customers to log in, add or delete services, make payments, report technical problems, or make other requests. The portal may include a chat function.

For incoming telephone calls, Partner shall provide a toll-free number that will be answered 24 hours a day, 7 days a week. During posted hours of operation, all calls shall be answered in person; after hours, calls may be answered by an answering service. All incoming telephone calls shall be answered by persons located in the US or Canada.

All incoming calls shall be answered within 30 seconds after the connection is made, including wait time. If the call is transferred, the transfer time may not exceed 30 seconds. Customers shall receive a busy signal no more than three percent of the time. These standards must be met at least 90 percent of the time, measured quarterly, under "normal operating conditions," e.g., those conditions under control of the Partner.

Standards for responding to incoming customer chat requests on the secure customer portal shall be analogous to standards for response to telephone calls except that an automated acknowledgement shall be provided outside of posted business hours and that acknowledgement shall direct customers to either make contact by other available means or to initiate a new Chat request during the next available hour of operation.

All incoming emails shall be acknowledged immediately. The acknowledgement shall state the standard for timely response and shall direct customers to make contact by other available means if a more rapid response is required.

<u>Installation, Service Interruption, and Service Call Standards</u>

Standard Internet installations -- which are those located up to 400 feet from the existing distribution system -- shall be completed as rapidly as possible during the period when the network is being constructed in the vicinity of the customer. If the network has been constructed in the vicinity of the customer but a connection to the customer's premises does not yet exist, a standard installation shall be completed as rapidly as possible. After the network has been constructed in the vicinity of the customer and a connection to the customer's

premises has been installed previously, a standard installation shall be completed within two weeks after an order has been placed.

Standard Voice installations – provision of Voice Over Internet Protocol (VOIP) service over an Internet connection – shall be completed concurrently with Internet service if both orders are placed simultaneously. Voice service shall not be provided exclusive of Internet service. If an order for Voice service follows successful installation of Internet service, Voice service shall be installed within two weeks after an order has been placed.

Planned Service Interruptions: Partner shall minimize the number and duration of planned service interruptions that are necessary for the purpose of system maintenance or improvement and shall schedule these interruptions on days and times when network traffic is lowest Partner shall inform DVFiber in advance of any planned interruption and shall not proceed without DVFiber's written consent, which shall not be unreasonably withheld. Partner shall communicate to all customers, either by email, phone, or postal mail the date, approximate time, duration, and impact of any planned service interruption.

Unplanned Service Interruptions: Partner shall categorize unplanned service interruptions as Urgent, High, and Normal priority. Urgent priority outages are those that render the network unusable for large numbers of customers or have identifiable life-safety consequences. High priority outages are those that reduce network functionality for large numbers of users and do not have identifiable life-safety consequences. Normal outages are those that reduce network functionality for a small number of customers and do not have identifiable life-safety consequences.

Partner shall mobilize resources and begin work to diagnose and resolve Urgent outages immediately after notification. Partner shall aim to resolve Urgent outages within four hours. The targeted resolution time shall be extended to include any electrical utility repair work that must precede the network repair work. For High priority outages, Partner shall mobilize resources and begin work to diagnose and resolve within one hour and shall aim to resolve within eight hours, with extensions to include necessary preceding electrical utility repair. For Normal priority outages, Partner shall mobilize resources and begin work to diagnose and resolve within four hours and shall aim to resolve within twenty-four hours, with similar allowable extension for utility repair. Trouble ticket records shall include information about the impact of electrical utility repairs.

Partner may propose alternate standards for categorizing and resolving outages, provided that the alternate standards have a similar intent of triaging problems and expediting resolution.

Service Calls: Partner shall schedule appointments for installations and other service calls either at a specific time or, at a maximum, during a four-hour time block during normal business hours. Partner may schedule service calls outside of normal business hours for the convenience of the customer.

Partner may not cancel an appointment with a customer after the close of business on the business day prior to the scheduled appointment. Exception: Partner may cancel an appointment due to inclement weather. If Partner's installer or technician is running late or is delayed by inclement weather and will not meet the specified appointment time, he or she must contact the customer and reschedule the appointment at the convenience of the customer.

The standards described above for installations, outages and service calls must be met under normal operating conditions at least 95 percent of the time, measured quarterly.

Value-Added Service Standards

DVFiber requires Partner to provide standard Internet and Voice services. All other services shall be designated generally as Value-Added services.

Value-Added services may include a business class of service for Internet and Voice services. Consumer and business services shall have identical speeds and identical traffic priority. Business class service may have an uptime percentage guarantee and a guaranteed service restoration time, both backed with financial penalties. Business class service may be priced higher than consumer class service.

Partner shall not market, sell, or provide any Value-Added service without the express written consent of the DVFiber Governing Board, which consent shall not be withheld unreasonably. DVFiber may attach reasonable conditions to its consent.

Billing Practice Standards

Any changes in subscription rates must be approved through the Governance Process and given to customers in writing, by mail, email, or text message at least 30 days before they take effect.

Partner shall provide monthly invoices to each customer through an online portal, by email, or by postal mail at the customer's option. All charges shall be clearly itemized. Partner shall enable payment by online bank or credit card payment, by check, and on an exception basis by accepting credit card payment by telephone. Partner may increase billing efficiency by providing incentives for online invoicing and payment and/or service charges for invoicing by mail or payment by credit card.

Refunds must be issued no later than either the customer's next billing cycle or 30 days following resolution of the request, whichever is earlier, or upon the return of equipment when service is terminated. Credits must be issued no later than the billing cycle following the determination that a credit is warranted.

Other Customer Communication Standards

Partner shall inform DVFiber of any planned marketing communications to DVFiber customers and shall not present marketing communications to DVFiber customers without the prior written consent of the DVFiber Governing Board, which consent shall not be withheld unreasonably.

The following information shall be provided to customers at the time of installation, at least annually to all subscribers, and at any time upon request:

- (1) products and services offered;
- (2) prices of each product and service;
- (3) installation, maintenance, and service policies;
- (4) instructions on how to use the service;
- (5) billing and complaint procedures.

Partner shall give 30 days notice to all customers in advance of any significant changes in this information.

Sources:

https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-broadband-america-program-fixed

https://www.fcc.gov/media/customer-service-standards

Appendix H: Pricing Standards

DVFiber expects that customer revenue will be divided between DVFiber and partner in order to satisfy DVFiber's financial obligations and fulfill Partner's financial goals.

Partnership proposals shall include a proposed plan for sharing customer revenue between DVFiber and Partner. Partner may propose to:

- a. Receive a fixed percentage of customer revenue;
- b. Receive fees from DVFiber calculated on a per-customer-per-month basis;
- c. Receive fees from DVFiber that are determined by factors other than the amount of customer revenue or the number of customers.
- d. Receive 100% of customer revenue and pay to DVFiber a fixed percentage of this revenue;
- e. Receive 100% of customer revenue and pay to DVFiber fees calculated on a percustomer-per-month basis.

If Partner proposes to receive total customer revenue less a portion payable to DVFiber (options a, d, or e above), Partner shall propose an initial schedule of prices for standard Internet and Voice_services, standard installations as defined in Appendix G - Operational Standards, and all per-unit costs to be charged for non-standard installations.

The initial schedule of standard Internet prices shall be all-inclusive monthly charges for at least three of the following speed tiers (expressed as download speed in Mbps / upload speed in Mbps), of which at least one shall be higher than 100/100: 25/3, 50/50, 100/100, 800/800, and 1,000/1,000. The standard Internet services for which these prices apply shall be exclusive of optional features or "over the top" services.

The initial schedule of prices for Voice services shall include an all-inclusive per-customer-per-month amount for unlimited local, regional, and long-distance calling to all US states and territories.

These initial price schedules shall apply to all DVFiber customers in areas that are included in the initial phase of live service initiation. This phase shall begin when service is initiated to the first customer and shall end when installations are completed for all customers who have requested service in these areas. The initial phase shall be not less than 12 months and not more than 24 months in duration. DVFiber shall be solely responsible to determine when the initial phase is complete.

Partner's proposal shall include links to the most recently advertised prices for service tiers it offers to its existing customers. DVFiber prefers that proposed initial prices shall be less than or equal to these currently advertised prices. If no such prices are posted publicly, DVFiber prefers that proposed initial prices shall be less than or equal to the average prices charged to urban customers by Internet Service Providers nationwide in the most recent year that has been reported by the FCC.

Average prices charged to urban customers nationwide for the past three years are:

	Year			
Download Speed	2018	2019	2020	2021
25 Mbps	\$57.40	\$55.60	\$51.98	\$52.02
50	\$69.60	\$73.79	\$67.88	\$67.34
100	\$90.97	\$79.17	\$81.54	\$71.50
1,000	\$180.51	\$135.27	\$128.48	\$106.10
Voice (with FSLC)	\$30.27	\$32.53	\$34.81	\$33.73

Source: https://www.fcc.gov/economics-analytics/industry-analysis-division/urban-rate-survey-data-resources

With respect to customer price schedules after the initial construction phase is complete, Partner shall commit to continue to provide standard Internet and Voice services exclusive of optional features or "over the top" services and shall propose a method for indexing the maximum prices to be charged for these services. These maximum prices shall apply to all customers that initiate service in subsequent phases of live installation and all customers that initiated service in earlier phases. Indexing may be based on changes in a) the US Consumer Price Index (CPI) published by the US Department of Commerce, b) modeled average prices reported for Internet and Voice services by the FCC in its annual Urban Price Survey, c) year-on-year changes in prices that Partner advertises publicly for comparable speed tiers, or d) another publicly available metric that is reasonably applicable and mutually agreeable to both parties.

If changes in prices reported in the FCC Urban Price Survey are used as the basis for indexing:

- a. Year-on-year changes shall be changes in annual average prices for download speeds that are most closely comparable to the download speed tiers provided to DVFiber customers at that time.
- b. If the bandwidth of any standard service tier is increased, the price of the newer (higher) speed tier relative to the former (lower) speed tier shall not exceed the ratio of the average price for the most closely comparable download speed tier in the most recent year to the most closely comparable download speed tier in the previous year.

Notwithstanding the commitment to provide standard Internet and Voice services exclusive of optional features and "over the top" services, Partner shall have the option to provide additional services and to share the associated revenue with DVFiber through one of the methods a-e outlined above. Partner shall specify which of these methods shall be followed.

Appendix I: DVFiber Financial Resources

In the year since it was founded, DVFiber has organized itself along three inter-related activities: acquiring and retaining customers, selecting vendor partners, and obtaining capital with which to invest in the partnership.

Although the Feasibility Study and Business plan prepared by the Windham Regional Commission in 2020 indicated that a public/private partnership can be economically successful in our service area, the underwriting standards of known sources of start-up capital require us to describe very specific plans that can only be created in cooperation with the private sector partner(s) that the District selects. Therefore, the actions necessary to obtain start-up capital from known sources will commence after the District selects its partner(s).

The purpose of this section is to outline the sources of capital that the District intends to approach. The RFP Response Form includes a section in which Partner may indicate the nature and extent of assistance it will provide to obtain necessary investment capital and/or the extent to which it proposes to provide investment capital.

Sources of Funds Identified by DVFiber

Source:	Windham County citizens
Туре:	Donations
Possible Amount:	\$1-1.5 million
Key Terms:	None – tax deductible donation.
Prerequisites:	Task force that integrates substantial charitable fundraising experience with local community connections and experience. Clear articulation of how funds will be used in a manner that appeals to donors.
Timing:	Ready to begin when appealing uses of funds can be articulated.

Source:	Vermont Economic Development Authority (VEDA)
Type:	Loan(s)
Possible Amount:	Up to \$4 million/project.
Key Terms:	Minimum 10% match. 10-year term, 15-year amortization. Payments can be deferred for 2 years. First security interest in funded assets is required.
Prerequisites:	Specific, detailed plan to apply the funds and to obtain sufficient net profit contribution to repay the loan.
Timing:	Available until funds allocated by Vermont legislature are exhausted.
Notes:	Legislative committee is discussing changes to the program structure that may enable VEDA to apply a looser underwriting standard and/or increase the amounts available to CUDs.
Link:	https://www.veda.org/broadband-loan-program

Source:	Vermont Department of Public Service (DPS)
Туре:	Grants
Possible Amount:	\$2.25 million split between 8 eligible CUDs (average \$275K/CUD
Key Terms:	Intended to be used as match for VEDA loans.
Prerequisites:	DPS will invite responses to an RFP.
Timing:	Pending
Notes:	Program is announced but details are pending.
Link:	

Source:	Local investors
Type:	Private Placements of Tax-Free Promissory Notes
Possible Amount:	\$10-15 million possible.
Key Terms:	Issued in increments of \$2,500. No limit on number of units. Can be interest-paying or zero-coupon. Tax-free annual interest rate of 6-7% is likely. Can include no-payment period and/or interest-only period until CUD is earning revenue to support repayment.
Prerequisites:	Credible business plan for applying the funds to build infrastructure that will generate sufficient profit contribution to enable repayment. Extensive offering document outlining plan details, note structure, investment risks.
Timing:	Campaign can begin upon completion of phase-one planning by public/private partners. Campaign preparation can begin at any time.
Notes:	Cannot advertise or use brokers or pay sales commissions. Investors can only be informed that a program exists; they must request prospectus. Public information campaign could be difficult under COVID social restrictions. Core investors of large amounts are critical to success.
Info Source:	ECFiber seminar.

Source:	Financial Institutions
Type:	Subordinated Debt
Possible Amount:	TBD
Key Terms:	Senior secured loans. 7-year term. Leverage and debt service coverage covenants. Rates from Libor + 4.5% (high risk) to Libor + 0.5% (low risk).
Prerequisites:	At least 12 months of positive cash flow from operations required.
Timing:	During loan term, Capex limited to amount loaned or generated internally – no other debt may be incurred.
Notes:	Financial institutions will finance expansion but not start-up.
Info Source:	Interview with CoBank representative.

Source:	Municipal bond investors
Type:	Unrated tax-free revenue bond

Possible Amount:	Tranches of \$5-10 million.
Key Terms:	Term bonds, multiple maturities per issue, interest only until maturity date. Junk bond rate \sim 5% triple tax free.
Prerequisites:	Maintenance of 1.25 EBITDA coverage before and after issuance
Timing:	2 years of audited financials showing continuous positive EBITDA.
Notes:	Used to repay subordinated debt and fund long-term investment requirements.
Info Source:	Interview with Chris Perlitz of Municipal Capital Markets Group



Public / Private Partnership RFP Response Form

Complete all sections of the form below to indicate the firm(s) responding ("Respondent(s)"); the scope of the proposal; the technical, operational, and pricing standards that the firm(s) propose to attain ("the standards"); the qualifications of respondents; the proposed costs to perform the proposed scope of work in conformance with the standards; and the proposed deal structure. If Partner's proposal is selected, the representations made on this response form shall be incorporated into the contract between DVFiber and Partner. Proposals in which meaningful responses are not provided in the relevant sections of this form will be considered deficient. *Note: To complete and submit this form, save this document under a different name and delete the RFP pages above, leaving only this form, and then enter your responses. Do not make your own facsimile version of this form.*

Respondent(s) may also provide additional descriptive content that may be helpful to amplify the representations made on this form, including more complete descriptions of any items. The additional content will be viewed as an adjunct to, not a substitute for, the representations made on this form.

1. Identity of Respondents

<u>Lead Respondent:</u>	
Firm Name:	
Principal Contact Name:	
Email:	
Telephone:	
Mailing Address:	
Website:	
Participating Respondent 1:	
Firm Name:	
Principal Contact Name:	
Email:	
Telephone:	
Mailing Address:	
Website:	
Participating Respondent 2:	
Firm Name:	
Principal Contact Name:	
Email:	
Telephone:	
Mailing Address:	
Website:	

Additional Participating Respondents: Add additional sheets as necessary.

2. Scope of Work Proposed

Indicate Yes or No whether Respondents propose to perform the scope of work described in each of the following subsections of the Required Scope of Work section DVFiber RFP. Indicate any exceptions, e.g., additions to or subtractions from the scope of work described in the RFP that Respondent(s) propose(s) to provide in each category.

Utility Pole Survey	□Yes	□No
Exceptions:		
Design and Engineering – High Level Design	□Yes	□No
Exceptions:		
Design and Engineering – Detailed Engineering Construction Design	□Yes	□No
Exceptions:		
Fiber Distribution Network Construction	□Yes	□No
Exceptions:		
Customer Premises Installations	□Yes	□No
Exceptions:		
Project Management Support	□Yes	□No
Exceptions:		
Network Operations	□Yes	□No
Exceptions:		
Technical Support	□Yes	□No
Exceptions:		
Business Development and Customer Support	□Yes	□No
Exceptions:		
Administrative Support	□Yes	□No
Exceptions:		
Capital Funding Support	□Yes	□No
Exceptions:		
3. Technical Standards:		
Indicate Yes or No whether Respondent(s) propose to conform with the technical standathe DVFiber RFP Appendix F – Technical Standards. Describe any exceptions, e.g., differ the technical standards Respondent(s) propose(s) to achieve and those described in the	ences be	
High Level Design / Engineering Plan	□Yes	□No

Exceptions:		
IP Addresses	□Yes	□No
Exceptions:		
Net Neutrality	□Yes	□No
Exceptions:		
Network Operations	□Yes	□No
Exceptions:		
Voice Services	□Yes	□No
Exceptions:		
4. Operational Standards Indicate Yes or No whether your proposal is to conform with the operational standa DVFiber RFP Appendix G – Operational Standards. Describe any exceptions, e.g., difthe operational standards you propose to achieve and those described above.		
Normal Performance Standards:		
Busy Hour Period	□Yes	□No
Exceptions:		
Performance Measurement	□Yes	□No
Exceptions:		
Minimum Speed	□Yes	□No
Exceptions:		
Speed Variation	□Yes	□No
Exceptions:		
Latency	□Yes	□No
Exceptions:		
Packet Loss	□Yes	□No
Exceptions:		
Normal Service Standards:	_	
Standard Internet Installations	□Yes	□No
Exceptions:		
Standard Voice Installations	□Yes	□No
Exceptions:		
Planned Service Interruptions	□Yes	□No

Exceptions:		
Unplanned Service Interruptions	□Yes	□No
Exceptions:		
Service Calls	□Yes	□No
Exceptions:		
Value-Added Service Standards	□Yes	□No
Exceptions:		
Billing Practice Standards	□Yes	□No
Exceptions:		
Other Customer Communication Standards	□Yes	□No
Exceptions:		

5. Pricing Standards

See Deal Structure section below.

6. Vendor Qualifications

Please respond to all questions below. If a nondisclosure agreement (NDA) is required in order to answer any questions, please send a proposed NDA not later than two weeks before the required Due Date for your RFP response.

Previous Project Experience

Please describe each respondent's experience in delivering the scope of work proposed to primarily rural areas having demographic characteristics similar to those of DVFiber.

Please describe each respondent's experience in marketing Internet and Voice services to customers in rural areas having demographic characteristics similar to those of DVFiber.

In both answers, descriptions of the role(s) played by Partner in specific projects will be most helpful.

Please provide client references for the projects described above.

Previous Public / Private Partnership Experience

Please describe each respondent's experience in forming and managing partnerships with public entities in order to provide affordable Internet and Voice services to rural areas with characteristics similar to those of DVFiber.

Please provide client references for the projects described above.

Previous Capital Funding Support Experience

Please describe respondent's experience in identifying sources of investment capital for public/private partnerships and specifically broadband network projects.

Please provide client references for the projects described above.

Physical Facilities – Network Operations Center

Please describe concisely the following:

- Physical location(s) of network operations center(s)
- Physical security controls to manage access to site and within site
- Environmental systems that provide continuous power, climate control, and fire suppression
- Redundancy of hardware and software components within NOC
- Failover process to alternate location, if any
- Disaster recovery plan

Cybersecurity

- What measures are in place at the NOC to prevent network intrusions and Denial of Service attacks?
- What measures are in place at the NOC to monitor unauthorized access of customer data access by NOC staff (packet inspection, etc.)?
- What measures are in place to comply with lawful interception of communications ordered by state or federal authorities?
- What data about IP traffic is being logged and retained at the NOC?
- What measures are in place to protect customer personal information (names, address, phone numbers, passwords, and other personal information) that are stored at the NOC?
- What process is in place in the event of an intrusion and possible theft of customer personal information?
- Has the NOC undergone a third-party information security audit recently? If so, please provide the results of this audit.

Physical Resources in DVFiber Service Area

Please describe where field service personnel, trucks, and supplies are or will be located to provide installations and service restoration to DVFiber customers within the timeframes specified in Normal Service Standards.

Financial Resources

Please provide audited financial statements for each respondent in the most recent fiscal year, including income statement, statement of financial condition, statement of cash flow.

Project Leadership and Oversight

Please describe Partner's staff resources that will provide hands-on leadership and senior oversight for the Partnership with DVFiber. Complete the form below for each lead resource that will interact with DVFiber officials directly. Attach additional sheets as necessary. Do not include staff resources that will have no direct contact with DVFiber officials.

Name:
Respondent Firm Name:
Title:
Proposed Leadership /
Oversight Role:
Roles played in each
reference project
described above
Percent of time
committed to DVFiber
Partnership:
N
Name:
Respondent Firm Name:
Respondent Firm Name:
Respondent Firm Name: Title:
Respondent Firm Name: Title: Proposed Leadership /
Respondent Firm Name: Title: Proposed Leadership / Oversight Role:
Respondent Firm Name: Title: Proposed Leadership / Oversight Role: Roles played in each
Respondent Firm Name: Title: Proposed Leadership / Oversight Role: Roles played in each reference project
Respondent Firm Name: Title: Proposed Leadership / Oversight Role: Roles played in each reference project described above
Respondent Firm Name: Title: Proposed Leadership / Oversight Role: Roles played in each reference project described above Percent of time

(continued on next page)

Name:
Respondent Firm Name:
Title:
Proposed Leadership /
Oversight Role:
Roles played in each
reference project
described above
Percent of time
committed to DVFiber
Partnership:
Name:
Respondent Firm Name:
Title:
Proposed Leadership /
Oversight Role:
Roles played in each
reference project
described above
Percent of time
committed to DVFiber
Partnership:
Name:
Respondent Firm Name:
Title:
Proposed Leadership /
Oversight Role:
Roles played in each
reference project
described above
Percent of time
committed to DVFiber
Partnership:

6. Proposed Costs

Please indicate proposed unit costs and extended amounts for the proposed scope of work for Phase One. Note: The Deal Structure section below focuses on flow of funds to pay these costs.

Phase One costs shall be extended into Please Two and any additional phases subject to adjustments that Partner may propose and DVFiber may accept. Work on Phase Two and any additional phases shall not proceed unless Partner and DVFiber agree on the unit costs that shall apply. Unit cost adjustments shall be based solely on clearly documented changes in labor and materials cost subsequent to the effective date of the Partnership Agreement. Partner shall provide clear evidence of changes in labor and materials cost and DVFiber shall apply reasonable standards of care to verify the evidence presented and shall not disagree unreasonably.

<u>Instructions:</u> Enter information in boxes marked in green shading below. "Choose an item" indicates a drop-down list of alternatives from which you must choose one.

	Extended				
Scope of Work	Definition	Quantity	Unit Cost	Cost	
Capital Expenditure Total	n/a	n/a	n/a	\$	
Utility Pole Survey	Per Pole		\$		
Distribution Network Total	Per Mile		\$	\$	
High Level Design	Per Mile		\$	\$	
Detailed Eng. Const. Design	Per Mile		\$	\$	
Network Construction	Per Mile		\$	\$	
Project Management Support	Choose an item.		\$	\$	
Capital Funding Support	Choose an item.		\$	\$	
Standard Internet Installation	Per Customer Site		\$	\$	
Standard Voice Installation	Per Customer Site		\$	\$	
Please indicate costs of non-stand	dard Installations:	•			
Conduit construction	Per Foot	n/a	\$	n/a	
Aerial lengths > 400 ft.	Per Foot	n/a	\$	n/a	
Custom installation labor	Per Hour	n/a	\$	n/a	
Other:		n/a	\$	n/a	
Other:		n/a	\$	n/a	
Other:		n/a	\$	n/a	
Ongoing Operating Costs	n/a	n/a	n/a	\$	
Network Operations	Choose an item.		\$	\$	
Technical Support	Choose an item.		\$	\$	
Customer Support	Choose an item.		\$	\$	
Administrative Support	Choose an item.		\$	\$	
If there are initial minimum fixed C	 Dperating Costs during	initial roll-out,	 please indicate	e them here:	
Network Operations	Per month	n/a	n/a	\$	
Technical Support	Per month	n/a	n/a	\$	
Customer Support	Per month	n/a	n/a	\$	
Administrative Support	Per month	n/a	n/a	\$	

7. Proposed Schedule

Referring to the information in Appendix C: District Size and Demographic Characteristics, including a) the towns that are included in Phase One and subsequent phases and b) the number of uncabled road miles and uncabled premises in towns that are included in Phase One and subsequent phases, please provide an aggressive but achievable schedule to achieve the scope of work that you propose at the costs quoted in section 6 above.

For Phase One:

- Describe the set of prerequisite conditions that must exist in order for your work to begin.
- Describe the total elapsed time to complete the total scope of work you propose. Denominate your response in months and weeks.
- List the significant events or circumstances that would inhibit Respondent's ability to complete the proposed scope of work within the elapsed time indicated above.
- Indicate whether Respondent will guarantee completion of the proposed scope of work within the elapsed time indicated above absent any of the events or circumstances named above.

For Towns Not in Phase One:

- Describe the set of prerequisite conditions that must exist in order for your work to begin.
- Describe the total elapsed time to complete the total scope of work you propose. Denominate your response in months and weeks.
- List the significant events or circumstances that would inhibit Respondent's ability to complete the proposed scope of work within the elapsed time indicated above.
- Indicate whether Respondent will guarantee completion of the proposed scope of work within the elapsed time indicated above absent any of the events or circumstances named above.

Performance Incentives/Penalties

DVFiber is also interested in receiving proposals for performance incentives and/or penalties as part of Respondent's proposal. The goal of such incentives would be to reward the Partner for exceeding schedule targets set out in the definitive Agreement and the goal of such penalties would be to penalize the Partner for not meeting targets set out in the definitive Agreement. Proposals for incentives / penalties are optional.

Please indicate whether Respondent will be willing to back a guarantee of completion in Phase One and/or Towns Not in Phase One with monetary incentives or penalties that are proportional to the actual elapsed time in comparison to the guaranteed elapsed time. Please describe the incentive/penalty structure that you propose.

8. Deal Structure

The Partnership Agreement shall be designed to provide sufficient incentive for Partner to perform the scope of work it is proposing and to enable DVFiber to achieve its mission of delivering FTTP connectivity to every currently underserved premises in member towns at prices that are reasonably affordable. The

Agreement shall be designed to achieve near-term financial goals and obtain the benefits of economic growth that will result from the universal availability of affordable internet service.

DVFiber would prefer to secure a majority or full ownership interest in the capital assets that are constructed. But unless sources of funds other than those described in Appendix I, DVFiber Financial Resources, become available, DVFiber will be able to contribute initially only a portion of the total cost to design, construct, and operate the network in all member towns. DVFiber intends that it shall be entitled to receive the portion of total revenue that is sufficient to pay debt service on the portion of the capital that it contributes to the partnership plus a margin that will be sufficient to both satisfy creditors' coverage requirements and support oversight, management, and further development of the District's assets and operations.

Partner shall be compensated for the scope of work it performs by receipt of capital funds from DVFiber, receipt of capital funds that it contributes, and/or receipt of portions of the revenue obtained from DVFiber customers.

Partner may propose to contribute its own capital and/or waive compensation for initial operating costs in exchange for an ownership interest in the capital assets that are constructed.

If Partner invests capital or waives compensation in order to obtain an ownership interest in the capital assets that are constructed, it shall agree to grant to DVFiber the right of first refusal to purchase Partner's interest at book value after five years following the date of the Partnership agreement. Book value shall be Partner's ownership share of the cumulative capital expenditures as proposed herein net of accumulated depreciation calculated on a straight-line basis using GAAP-compliant estimates of useful asset lifetimes.

If Partner proposes to be compensated in whole or in part through a formula based on the amount of total customer revenue, Partner shall propose an initial price schedule for standard Internet and Voice services and the percentage of total revenue that it will receive or retain. See Deal Structure Question 6 below.

Deal Structure Questions:

- 1. Please indicate the minimum and maximum amount of capital that Partner proposes to invest in the assets to be constructed and owned by the Partnership.
- 2. Please indicate the amount of compensation for Ongoing Operating Costs that Partner proposes to waive in exchange for an ownership interest in the assets to be constructed and owned by the Partnership.
- 3. Please indicate the minimum and maximum percent of ownership interest in the communications plant that Partner will accept.
- 4. Please indicate the minimum internal rate of return on invested capital that partner requires.
- 5. In Table A below, please indicate Partner's proposed share of operating revenue:
 - a. A fixed percentage of total customer revenue;
 - b. A schedule of fees calculated on a per-customer-per-month basis and payable from revenue;

- c. A schedule of fees that are determined by factors other than the amount of customer revenue or the number of customers.
- d. Total customer revenue less a schedule of fees paid to DVFiber that are calculated on a percustomer-per-month basis;
- e. Total customer revenue less a schedule of fees paid to DVFiber determined by factors other than the amount of customer revenue or the number of customers
- 6. If Partner is proposing to receive a schedule of fees that does not depend on the amount of revenue received from customers (options b or c above), please propose that schedule in Table A below, assuming DVFiber will receive average revenue per unit of \$102.
- 7. If Partner is proposing to pay a schedule of fees to DVFiber from the proceeds of revenue (options d or e above), please propose that schedule in Table A below.
- 8. If Partner is proposing to receive total customer revenue less a portion payable to DVFiber (options a, d, or e above), please propose in Table B below a schedule of prices for standard Internet and Voice services and installations during Phase One of construction. In addition, please indicate in Table C below if your proposal is to conform with the methods of indexing future price changes that are described in Appendix G Pricing Standards.

Table A: Partner's Share of Operating Revenue							
(Sele	ct One)	(Proposed	Proposed Amount)				
	Fixed % of customer revenue	%	%				
	Fixed fee	\$	per customer per month				
	Fixed fee	\$	Per		per		*
	Total customer revenue less	\$	per customer per month				
	Total customer revenue less	\$	Per		per		*

^{*} Attach additional schedule if necessary.

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Table B: Proposed Customer Prices **	
Standard Internet: In the drop-down boxes	
below, select at least 3 download / upload	Proposed all-inclusive ongoing price / month
speeds*** including at least one above 100/100	without term commitment requirement
Select one:	\$
Business Class Internet: Select at least 3	Proposed all-inclusive ongoing price / month
download / upload speeds***	without term commitment requirement
Select one:	\$
Installation services: answer all	All-inclusive one-time price per unit
Standard internet installation including all labor,	\$
materials, and customer premises equipment	
Standard voice installation including all labor,	\$
materials, and customer premises equipment	
Non-standard internet installation:	\$
Conduit construction, per foot	\$
Aerial lengths > 400 ft, per foot	\$
Custom installation labor, per hour	\$
Other:	\$
Other:	\$
Other:	\$

^{**} For phase one of construction. See related commitment question below.

^{***} Speeds must be symmetrical at or above (NOT up to) download and upload minimums listed

Pricing Standards:

Indicate Yes or No whether Respondent(s) propose to conform with the pricing standards described in the DVFiber RFP Appendix H – Pricing Standards. Describe any exceptions, e.g., differences between the pricing standards Respondent(s) propose(s) to achieve and those described in Appendix H.

Commitment to cor	□Yes	□No				
Exceptions:						
Table C: Proposed Method of Indexing Future Price Increases						
Standard Internet	Choose an item.					
Standard Voice	Choose an item.					