

**Vermont Community Broadband Board  
Organizational Meeting  
August 6, 2021 10am**

**AGENDA**

Meeting will be held in the GIGA Conference Room  
3<sup>rd</sup> Floor of 122 State Street, Montpelier VT

Join by video; [https://teams.microsoft.com/join/19%3ameeting\\_NGM5MWNjYjAtOTAzNi00MDRjLTkyMDUtNzlyNzVjNjQxMGnk%40thread.v2/0?context=%7b%22Tid%22%3a%2220b4933b-baad-433c-9c02-70edcc7559c6%22%2c%22Oid%22%3a%22605bace0-882e-4a4b-a840-042a6319db89%22%7d](https://teams.microsoft.com/join/19%3ameeting_NGM5MWNjYjAtOTAzNi00MDRjLTkyMDUtNzlyNzVjNjQxMGnk%40thread.v2/0?context=%7b%22Tid%22%3a%2220b4933b-baad-433c-9c02-70edcc7559c6%22%2c%22Oid%22%3a%22605bace0-882e-4a4b-a840-042a6319db89%22%7d)

Join by Phone; +1 802 828 7667

Phone Conference ID: 756 650 117#

- |       |                                                                                      |
|-------|--------------------------------------------------------------------------------------|
| 10:00 | Agenda change requests and vote to approve agenda (Chair)                            |
| 10:05 | Roll Call – Meeting ground rules (Chair)                                             |
| 10:10 | Board member introductions – brief history – 3 minutes each (All)                    |
| 10:25 | Staff introductions – brief history – 3 minutes each (Ex Director & Staff)           |
| 10:35 | Officer Seats (Vice Chair required), Nominations, and Vote (Chair)                   |
| 10:45 | Status presentation from Staff (Ex Director)                                         |
| 11:05 | Develop agenda items for next meeting; agree upon a regular meeting schedule (Chair) |
| 11:15 | Public comments (Chair)                                                              |
| 11:30 | Vote to Adjourn (Chair)                                                              |

Press inquiries; please contact Rob Fish, [Robert.fish@vermont.gov](mailto:Robert.fish@vermont.gov) 802-522-2617

Vermont Community Broadband Board  
Governing Board Update  
August 5, 2021  
Christine Hallquist  
Executive Director  
Phone – 802-636-7853  
Email – [christine.hallquist@vermont.gov](mailto:christine.hallquist@vermont.gov)

## **Executive Summary**

The first two weeks of my activities have been focused on meeting with the existing towns, Vermont telecommunications providers and Communication Union Districts (Districts), starting the process to address anticipated labor constraints, as well as understanding the grant requirements and the proposed grant processes. These areas will be explored in greater detail in this update.

We also have been working on human resources needs, an appropriate organization model, setting up systems and identifying software needs. This can be discussed at a later Board meeting.

Within the next two weeks, we will begin construction of a dedicated website, as well as provide each board member with a state email address as well as access to shared drives and files. It will be important from a records retention standpoint to migrate your Board related emails, communications and file storage to this system. We anticipate information requests under the Freedom of Information Act and discipline in the use of state systems will not only make it easier, it will ensure that your private communications are not compromised.

The Scott Administration (Administration) is asking for a weekly report and update. This weekly report will be routed through the PSD commissioner. The commissioner will need it by the close of business on Thursday. My intent is to develop one report that will effectively meet the desires of the Administration, as well as provide an update to the Vermont Community Broadband Governing Board (Board). This will be written as a public document and posted on our website.

## **Centralized support of the Districts**

In working with the districts, our goal is to have their value-added activities be focused on design, construction, community needs and partnerships.

This leaves the possible value-added activities of the VCBB to include grant administration, financial reporting, centralized purchasing, GIS and legal support. As part of that support, we envision developing standardized Key Performance Indicators (KPIs) tied to financial and grant reporting with the goal to simplify the process of gathering the necessary information at the CUD level. The VCBB or a third party contracted by the VCBB will assume grant management and monitoring responsibilities from the CUDs.

This centralization and standardization will assist with VCBB reporting, ensure compliance and increased oversight, and allow the CUDs to focus on value-added activities

Developing the KPIs is a process that will require some deliberation at the Board and Administration level to ensure we are measuring the right things. The measures will be developed as a “waterfall” process with the goal of creating alignment between the mission, objectives, strategies and activities.

At the Board and Administration level, some possible KPI’s could include:

- Percent of underserved addresses connected
- Total cost per address passed
- Cost per mile
- Cost per Mbps combined (upload and download) access
- Take-rate
- Low-income access

Early Board and Administration KPI’s could also include:

- Addresses covered by High Level Design
- Addresses covered by detail design
- On-time connection rate

There will be a separate set of measures to confirm end connections. These will likely be derived from existing Federal Communication Commission success measures. For example;

- Initial connection speed
- Initial connection latency
- Speed and latency over time (with minimum performance requirements defined)

## **Proposed Grant Process**

We are working with the DPS and the Administration to develop a grant administration process that meets state and federal requirements. Currently the federal ARPA grant requirements have not been finalized. There is some tension between the goal of issuing one grant (one deposit) to the VCBB and the federal requirements regarding reimbursement. At the grant recipient level, we are looking at initial up-front payments, followed by progress payments based on performance, with consideration for labor and material shortages. This may reconcile the tension described above.

The goal is to have the entirety of funding allocated to the VCBB as a single appropriation. The VCBB would then develop individual grant agreements with each of the grantees (CUD’s, towns, and providers). The process, once the program grant has been approved by the Office of Administration, would be as follows:

1. VCBB issue the RFP to the CUD, town, or provider including the required state and federal language and questions
2. Grant applications reviewed by VCBB staff with Executive Director approval
3. Grant recommendations presented to the Board for review and approval.

4. Grant agreement negotiated and executed with the CUD, town, or provider with assistance from the Department of Finance and Management as necessary.
5. On-going grant management and reporting

The pre-construction activities and related grant fall outside of the grant process described above, per ACT 71 (formerly H.360). We have submitted the RFP for a \$30 million pre-construction grant to the administration this week. It is important to make that funding available as soon as possible. Our goal is to move the CUD's to detailed design quickly. Most of the CUD's are in the process, or have completed high-level Design, which is a pre-requisite for detailed design. I would like to see detailed designs in place for the CUD's by the start of 2022.

### **Meetings with existing telecommunication providers**

I have been reaching out to the existing telecommunication providers to hear their thoughts and concerns. For the most part, the providers are restating the positions that were already presented to the legislature. Mainly, the grant funds should go to their companies so that they can build out the networks. While the CUDs have reached out to these providers as part of the individual RFP processes, very few local providers, except for Waitsfield/Champlain Valley Telecom and ValleyNet, have responded to those requests.

There will likely be cases where it makes sense to support local telecommunication providers to serve isolated pockets that cannot be better served by the CUDs and their partners. These decisions are best made after the detailed designs are completed.

### **Meetings with CUDs**

The CUD's are in various stages of development. We have requested updates from each of the CUD's to provide the Board with current status. Those updates are included with this document.

Most CUD's are in negotiations with, or evaluating, potential operator partnerships. One of the key elements in these negotiations and evaluations is the level of network ownership. While there is one exception, CUD ownership of the network to the premise is in the best interest of the public. At least two of the telecommunication providers who are in partnership discussions with a CUD prefer to own the drops to the premise. This works to the provider's long-term advantage because it makes it more difficult for the CUD to bring in another provider in the event of non-performance. While open access may not be possible due to the poor densities of the underserved areas, it is important to consider the ability to switch Partners in the future. We know from Vermont's telecommunication history that lack of choice in telecommunication providers can lead to poor performance and lack of response. As we develop the criteria for Grant Awards, public benefit needs to be held high in terms of importance.

Overall, the CUD's have the following concerns:

- How the grants are evaluated.
- How long it takes to the grant award?
- How cumbersome are the grant reporting requirements?
- What resources will be available from the VCBB?

Regarding the evaluation criteria, we have started work on a draft list of criteria that has been sent to the CUDs, the PSD and the Administration for input. We also are looking for early Board input as well. After receiving input, we will be looking to the Board to help assign weightings and finalize the criteria, resulting in a decision matrix. This matrix will be shared with the CUD's and others as a framework for the grant request.

The following is a first draft of the proposed criteria and conditions. Points will be assigned later to help evaluate the proposals:

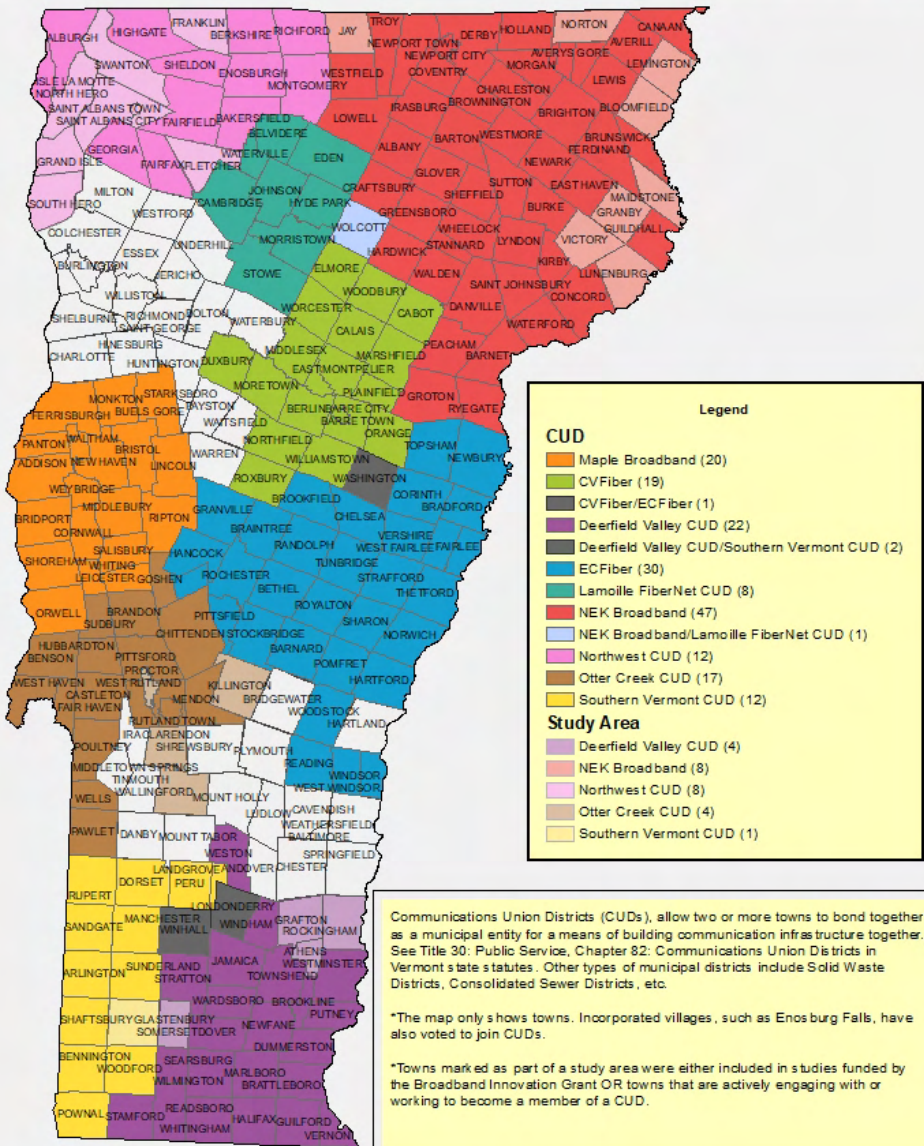
#### *Proposed Grant Criteria*

- Universal Service plan is required
- Priorities
  - Support low-income and disadvantaged communities Including participation in federal broadband low-income subsidy
  - Leverage existing private resources and assets
  - High priority given to working with an electric distribution utility
  - Demonstrate readiness
  - Provide consumer protection and net neutrality
  - Support geographic diversity
  - Include public broadband assets
- Cost effectiveness, with consideration of:
  - Number of unserved and underserved premises to be passed by the proposed network and the cost per passing.
  - Miles of fiber access network required to reach the unserved and underserved premises
  - Increased cost of overbuilding in cabled areas where this is necessary to connect the unserved and underserved areas.
- Quality of contract resources
  - to execute the project and achieve the public service mission.
  - To manage the project in compliance with mandated terms and conditions.
- Percentage of public ownership (with a goal of 100%)
- Timing – how fast do underserved addresses get connected
- Tangible benefits to Vermont
- Amount of funds leveraged from other sources - local ARPA funds, other grants, donations, private partnerships

#### *Proposed Draft Conditions*

- Payment schedule reflects accountability

- Standard engineering supports
  - Resiliency
  - Reliability
  - Inter-operability
- Standards to recoup funds in the event of failure to comply
- Continuity of operations plan
- Prohibit sale without prior approval of the Board
- Process for reconsideration of decision(s)
- Ensure project completion in a reasonable timeline
- Comply with Administration, State and Federal grant requirements
- Business plan in progress or completed
- Private provider cannot undermine CUD
- Grants can be provided to cost effective projects that meet 100/100 speeds
- Consider other possible upgrades
- Ultimately needs to become economically sustainable
- Project consistent with the State's 10-year Telecom Plan that was adopted on June 30, 2021.
- Project complies with applicable U.S. Treasury regulations for use of the ARPA (SRF) funding. <https://home.treasury.gov/system/files/136/SLFRF-Compliance-and-Reporting-Guidance.pdf>
- Comply with Open Meeting law, including public accommodations and transparency of operations and decision-making



# Overview: Communications Union Districts

## Summer 2021

- 9 Districts
- 197 Member Towns
- 398 Volunteer Board Reps & Alternates
- More than half the state's population
- 90% of premise statewide without access to 100/100 Mbps broadband



# Northwest Vermont Communications Union District

- **Founded August 3, 2020 NWCUD currently has 14 member municipalities.**
- **NWCUD's vision is to break the barriers to Internet access for all in our communities.**



## CUD Accomplishments & Tasks to Date

- Worked with communities to deploy Wi-Fi hotspots to address immediate need for connectivity
- Surveyed over 1000 District residents about broadband needs
- Developing feasibility study and business plan for an open-access fiber broadband network

## The Path Forward (6-9 months out)

- Complete feasibility study and business plan
- Develop increased partnerships with local providers
- Begin detailed planning for network build-out





# Maple Broadband Status Report

August 6, 2021

- Location: Addison County
- Member Towns: 20
- Inception Date: September 20, 2020
- Accomplishments to Date:
  - NDA and MOU signed with potential Network Manager/Designated Service Provider
  - Network engineering firm engaged through RFP process
  - High-level network design in progress
- Next Six Months:
  - Network Management Agreement executed
  - Business Plan issued
  - High-level network design completed
  - Pole audit commenced
  - Long lead-time materials ordered

DVFiber

empowering our connection to the future



# Otter Creek communications union district

- 📶 Established July 31, 2020
- 📶 Size: Currently 17 towns, covering approx. 700 road miles and 17,000 buildings
- 📶 Current Status: OCCUD has supported the installation of 12 public hotspots, established communication platforms (<https://occud.org>, Facebook, and <http://outreach.occud.org>) to support public education and information distribution, identified a contractor to provide a regional high level engineering study, finalized its Feasibility Study; and received grant funding from Vermont Community Foundation and the State of Vermont.
- 📶 Future Status: In the next 4 months, the OCCUD intends to have a complete high level engineering study completed; have identified at least one existing ISP to partner with where geographically strategic to make this happen; and completed its business plan.

Otter Creek Communications Union District  
49 Center Street, Brandon, VT 05733

ottercreekcud@gmail.com

# Southern Vermont CUD

- Fourteen Towns
  - Mostly Bennington County
- 12.5 percent of locations fall short of 25/3 Mbps target
  - State average: 22.7 percent
- No “slam-dunk” scenario for network buildout
  - Partnership **necessary**
- Recently agreed to public-private partnership for NTIA grant and beyond
- Utilizing CARES and H315 funding for legal and technical guidance and RPC support to navigate partnership approach and negotiations

sovtcud.net

## What is a CUD?

A CUD is a governance structure (like a water or wastewater district) allowing multiple towns to band together to attack their Internet problems as a region and bring high-speed internet to all.

## How does it work?

Recent history has shown that the private sector isn't going to solve the rural Internet problem for us, and it is too big for one town. Multiple towns working together is the proven solution.

## Key things to know

Joining a CUD will not raise taxes, ever. By state law, tax money cannot be used to pay for communication infrastructure. The build-out will be paid for with grants, donations, and service fees.

SoVT CUD currently represents 14 towns in Bennington county:

<input type="checkbox"/> Arlington	<input type="checkbox"/> Pownal
<input type="checkbox"/> Bennington	<input type="checkbox"/> Rupert
<input type="checkbox"/> Dorset	<input type="checkbox"/> Sandgate
<input type="checkbox"/> Landgrove	<input type="checkbox"/> Shaftsbury
<input type="checkbox"/> Londonderry	<input type="checkbox"/> Sunderland
<input type="checkbox"/> Manchester	<input type="checkbox"/> Winhall
<input type="checkbox"/> Peru	<input type="checkbox"/> Woodford

## Frequently Asked Questions

What are some reasons for creating a CUD? How does a CUD operate? Are there any benefits? What is the cost to the taxpayer and



## Accomplishments and Next Steps

- Collaborated on Feasibility Study and Business Plan
- Grew to include 24 towns and 75 Governing Board and Committee members
- Secured \$150,000 in grant funding
- Interviewed multiple industry participants, completed pole study in four towns, performed density mapping, issued RFP
- Developed brand, website, quarterly newsletter, social media, and town newsletter and meeting reports
- Engaged in legislative advocacy
- Selected GWI as operational partner for pre-construction, construction, operation, and provision of internet service
- Next Steps:
  - High Level Design for entire District
  - Engineering and Make-Ready for 2022 Construction
  - Successive annual cycles of pre-construction / construction until complete

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- **PAST**

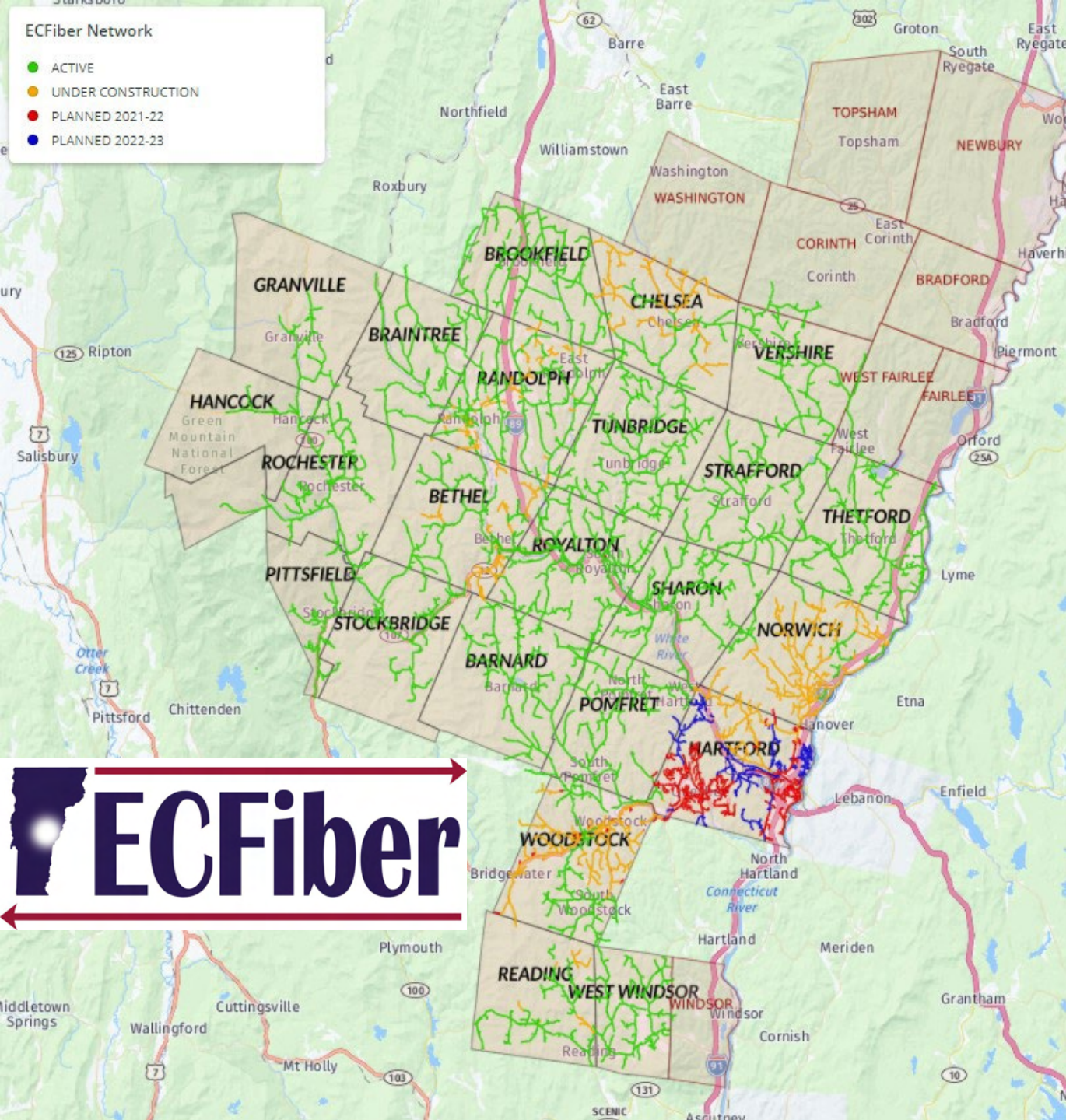
- Launched July 14, 2020; serving over 500 road miles and population of ~23,000.
- Expanded to nine towns: Belvidere, Cambridge, Eden, Hyde Park, Johnson, Morristown, Stowe, Waterville, Wolcott
- Developed administrative policies & systems; ongoing public education
- Received grants from Green Mountain Fund, State of Vermont, VT Community Foundation and, with LCPC, USDA RDBG.
- Extended internet access to students with no remote learning; extended public access for two libraries.
- Completed feasibility study, business plan; plan review, pole data collection in priority areas, high level design & mapping.

- **PRESENT**

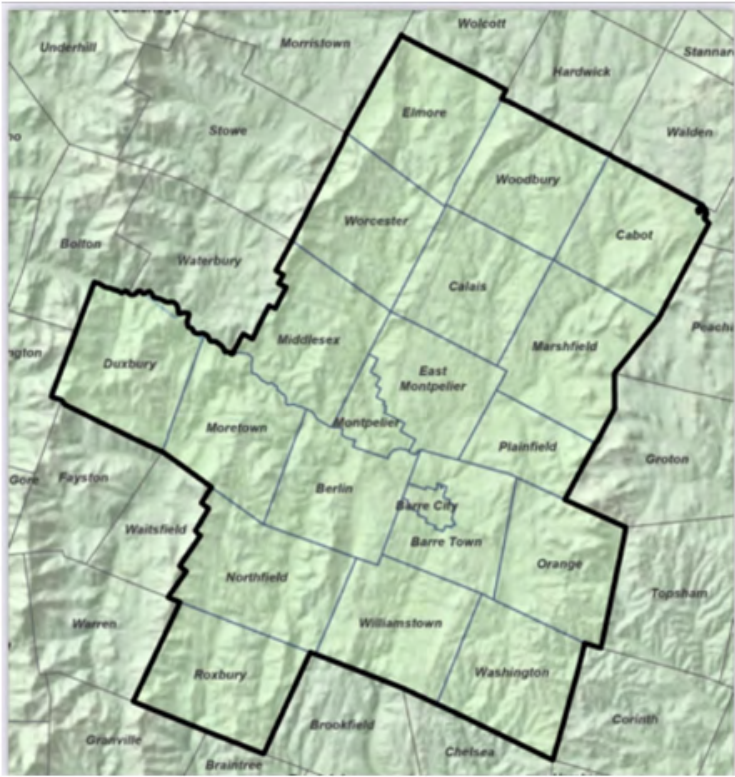
- Partner agreement(s): co-authored RFP for partners; in discussions with potential partners.
- Transitioning into systems for project management, data storage, ARC GIS.
- Executive Director: hiring & onboarding executive director (currently interviewing finalists).

- **FUTURE (6-9 months)**

- Select and negotiate MOU with ISP partner(s), with legal review and financial analysis before executing.
- Update high-level design and business plan, including phasing in, in concert with partner(s).
- Apply to VCBB for grant funding.
- Once funded: create detailed design, procure equipment and construction services, then request make-ready.



- **East Central Vermont Telecommunications District is Vermont's first communications union district**
- **Contracts with ValleyNet, Inc., a non-profit internet service provider, to design, build and operate the network and do business as ECFiber**
- **31 towns stretching from Windsor to Newbury along the Connecticut River and westward to the eastern slope of the Green Mountains.**
- **Began as 23 town interlocal contract in 2008, funded by \$2,500 privately placed promissory notes through 2015, became CUD Jan 1, 2016.**
- **19 of 23 original towns complete**
- **1300+ miles of network, ~6,500 customers**
- **22 of 23 will be done by foliage season**
- **23<sup>rd</sup> town all construction done in non-cable area**
- **Mainline construction starting in Hartford now**
- **Hartford will be complete in 2022**
- **\$52 million in 4.75% – 6.75% municipal revenue bonds selling over par on open market at 3% effective return**
- **8 new towns admitted during 2020**
- **District will apply for full funding of network in the new towns; many are part of WEC project**
- **Long term concern: district debt level as a % of capital assets should be equal to that of new mostly grant funded CUDs – need to find some way of providing grants we can use to defease bonds.**



Providing Central Vermont residents, businesses, and civic institutions with universal access to a reliable, secure, locally-owned and -governed communications network able to grow to meet future community needs.



### Phase 1: The Underserved

- Construct core svc ring (~600 mi)
- Cover 85% of unserved/underserved
- Construction: 2021–2023
- Service rollout begins: 2022

### Phase 2: Build out from the Core

- Service entire district (add ~600 mi)
- Construction: 2024–2025
- Service rollout begins: 2024

CVFiber Community Network Estimated Costs 2021 - 2025 (\$000)							
		2021	2022	2023	2024	2025	Total
1	Pole Inventory	725	0	0	0	0	\$ 725
2	High Level Design	125	0	0	0	0	\$ 125
3	Design & Engineering	750	0	0	0	0	\$ 750
4	Make-Ready	250	750	750	0	0	\$ 1,750
5	Construction	0	7,860	8,360	9,600	4,750	\$ 30,570
6	Service	0	2,500	2,660	3,050	1,500	\$ 9,710
7	Total	\$ 1,850	\$ 11,110	\$ 11,770	\$ 12,650	\$ 6,250	\$ 43,630

### Activity Schedule *(subject to funding, material, and contractor availability)*

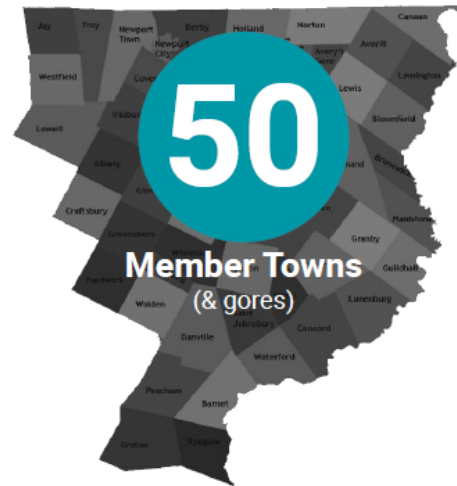
	Preconstruction				Construction: Phase 1					Construction: Phase 2				
	Miles Total	Pole Inventory	High Level Design	Detailed Engineering	Phase 1 Miles	Under-served Premises	Make-Ready	Construction	Service	Phase 2 Miles	Under-served Premises	Make-Ready	Construction	Service
Area A	300				150		2021			150		2023		2025
						1,594	96%			69	4%			
Area B	475		2021		160			2022		315				2024
						1,795	65%			984	35%			
Area C	300				300									
	1,075				610	2,102	100%			465				
								2021					2022	
														2023
														2024
														2025

### Past & current events

2018:	CVFiber formed	
2020:	Completed Feasibility & Business Studies	
	Conducted Survey of District	
2021:	Issued Pole Inventory Services RFP	February
	Executed Pole Inventory retainer contracts	April
	Issued High-Level Design RFPs	May
	Engaged Project Manager	June
	Issued RFP for Network Developer/Operator	July
	Launch Area A pole inventories	August
	Execute High-Level Design contracts	August
	Launch High-Level Design	August

# NEK Community Broadband

Formed on April 30, 2020 after affirmative March Town Meeting votes by 26 towns, NEK Broadband has almost doubled in size, creating the largest and most rural district in Vermont.



**17,000+**

Un/underserved addresses  
represents **25% of state total**



**2800+**

Miles of fiber to  
construct

## Accomplishments To Date

- Completed Feasibility Study & Business Plan (VT DPS BIG)
- Awarded \$460,000 CARES funds for Concord/Waterford Pilot
- Awarded \$276,000 H.315 VT DPS Preconstruction Funding
- Request for Partnerships Process in Final Round
- Released RFP for WEC & Muni Elec Pole Surveys

## Current Activities

- Presenting Business Plan to Member Selectboards
- Concord/Waterford Pilot Project Make Ready, Detailed Design Underway
- Negotiating partnership for Network Construction Management & Operator
- Part of 3 CUD Partnership negotiating MOU and DFA with Washington Electric Coop(WEC)

## Fall 2021 & Early 2022 Goals

- Light up Concord/Waterford Pilot
- Award Construction and Operator Contracts
- Finalize Dark Fiber Agreement with WEC
- Complete State Fiber & Northern Enterprise Asset Transfer in NEK
- Update Business Plan with New Financing Details
- Hire Long-term Administrator/ED





August 5th, 2021

Dear Vermont Community Broadband Board:

Thank you for this opportunity for CVFiber to present its view on needs, concerns, and opportunities for shared resources that would benefit all CUDs.

### **Needs**

Successful design and construction of our fiber-to-the-premises network requires that contractors in the field, once they have started working, continue working until their tasks are fully completed. Contractors can only work on tasks they are getting paid for; therefore, funding must be available in large enough sums and at regular consistent intervals to keep the contractors in the field. Small grant allocations and irregular allocation timing will force contractors to redeploy to other jobs not related to the CUD's mission and increase the contractor's uncertainty about working with CUDs. The contractor's need to redeploy and increased uncertainty will extend the schedule and substantially increase costs.

### **Concerns**

The unknown timing and size of fund allocation makes planning and commitments difficult to implement. CUDs don't know how much money is coming to them and they don't know when they will get it. CVFiber has a two-year plan that will get fiber to 85% of the underserved in our member towns. That two-year plan is contingent on a continuous stream of funds. The uncertainty surrounding funding, if not resolved, will greatly increase the schedule and the budget, thereby limiting our ability to bring fiber to our underserved community members.

### **Opportunities for Shared Resources**

A major opportunity for shared resources that will save money and improve performance for all CUDs would be for the VCBB to provide for: funding an auditing firm that can advise CUDs and prepare the required single audit; GIS services; legal resources; and centralized bulk purchasing, especially of fiber.

Best Regards,

A handwritten signature in black ink, appearing to be "JH", followed by a horizontal line.

Jeremy Hansen, Ph.D  
Chair, CVFiber Governing Board

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[info@cvfiber.net](mailto:info@cvfiber.net) | <https://facebook.com/CVFiber> | <https://cvfiber.net>

Providing Central Vermont residents, businesses, and civic institutions with universal access to a reliable, secure, locally-owned and -governed communications network able to grow to meet future community needs.

Barre City • Barre Town • Berlin • Cabot • Calais • Duxbury • East Montpelier • Elmore • Marshfield • Middlesex  
Montpelier • Moretown • Northfield • Orange • Plainfield • Roxbury • Washington • Williamstown • Woodbury • Worcester

## **NEK Broadband is growing. We have almost doubled in size.**

Founded on April 30, 2020 after affirmative March Town Meeting votes by 26 towns

Current Membership: 45 (50 counting each of the *Unified Towns & Gores*)

## **We are popular. We include most of the munis in our core 3-county region: (44/50)**

- **Caledonia County:** 17/17 (Barnet, Burke, Danville, Groton, Hardwick, Kirby, Lyndon, Newark, Peacham, Ryegate, Sheffield, St. Johnsbury, Stannard, Sutton, Walden, Waterford, Wheelock)
- **Essex County:** 9/14 (*Averill, Avery's Gore*, Brighton, Brunswick, Canaan, Concord, East Haven, *Ferdinand*, Guildhall, Lemington, Lewis, Maidstone *Warner's Grant, Warren's Gore*)
- **Orleans County:** 18/19 (Albany, Barton, Brownington, Charleston, Coventry, Craftsbury, Derby, Glover, Greensboro, Holland, Irasburg, Lowell, Morgan, Newport City, Newport Town, Troy, Westfield, Westmore)
- **Lamoille County:** 1 (Wolcott, joint membership with Lamoille Fiber)

## **We are busy. We have a challenge in front of us.**

- Over **17,000 unserved and underserved addresses**, around 25% of the state total & more than double the number in any other CUD
- Low density of population. Our plan will require **2,800 fiber miles**, mostly new construction

## **Thru July 2021 Accomplishments**

- Completed Feasibility Study & Business Plan (VT DPS BIG)
- Awarded \$460,000 CARES funds for Concord/Waterford Pilot
- Awarded \$276,000 H.315 VT DPS Preconstruction Funding
- Request for Partnerships Process in Final Round
- Released RFP for WEC & Muni Elec Pole Surveys

## **Current Projects**

- Presenting Business Plan to Member Selectboards
- Concord/Waterford Pilot Project Make Ready, Detailed Design Underway
- Negotiating with Network Construction Management & Network Operator finalists
- Part of 3 CUD Partnership negotiating MOU and DFA with Washington Electric Coop

## **2021 & Early 2022 Goals**

- Light up Concord/Waterford Pilot & Connect Priority Addresses
- Award Construction Management and Network Operator Contracts
- Finalize Dark Fiber Agreement with Washington Electric Cooperative
- Complete Transfer of State Fiber Assets Northern Enterprise Fiber Assets in NEK
- Update Business Plan with New Financing Details
- Hire Long-term Administrator/ED
- Increase membership & buy-in with regular communication to boards & communities

## **Needs**

- (1) Committed Large-scale Grant Funding Agreement
- (2) State fiber pre-purchase; electronics will be dependant on operator preference
- (3) Shared services through VCUDA paid for with grant dollars: accounting consult; grant management software; negotiation of statewide utility & other 3rd party fiber access agreement

## **Concerns**

- (1) Equitable distribution of grant funds must include density considerations, how many miles that must be built to reach underserved, consider a maximum percentage of total costs approach
- (2) Clarity is needed around VCBB recommendations for non-CUD towns
- (3) Growing workforce capacity will require state focus & support



**Date: 8/5/21**

**To: VCBB, c/o Rob Fish**

**Fr: Jane Campbell, Lamoille FiberNet CUD Chair**

**Re: Needs, Concerns and Opportunities**

Thank you for your request for comments relating to CUD needs and concerns as they relate to the work of the VCBB and also ideas regarding opportunities for shared resources that would benefit all CUDs.

Here are some preliminary thoughts relating to these areas:

### **Needs & Concerns**

- We would appreciate it if the VCBB continued to keep the needs of CUDs at the forefront of the State's approach to broadband, especially in terms of funding.
- It would be very helpful for the VCBB to establish its grant application and review processes as soon as possible. This will allow the CUDs and partners to plan without undue delay. The CUDs and their partners need to know upfront what will or will not be eligible for funding, and what conditions will apply to the funding. This is important not just for pre-construction and CUD organizational capacity but for the full project cycle -- planning, design, construction, and start-up. We look forward to participating in the development of the funding guidelines.

### **Opportunities for Shared Resources**

- We fully support the goal of making the most efficient use of resources, and we agree that there are a number of potential options for sharing resources (e.g., GIS mapping, legal review and financial analysis of MOUs and contracts), as long as the system can ensure the short turnaround times needed — collaborating will allow all the CUDs to better serve their constituents. In general, it would be better for the VCBB to provide funding to VCUDA to develop these central resources, rather than have the VCBB to develop a duplicate system of support for CUDs.



## Background

The Northwest Vermont Communications Union District (NWCUD) is composed of 14 member municipalities located in Franklin and Grand Isle Counties. Founded on August 3, 2020, the vision of the NWCUD is to break barriers to Internet access for all in our communities through the development of an open-access fiber to the premise network in the Northwest District.

### NWCUD Member Municipalities

Alburgh Town	Enosburgh Town	Isle La Motte
Alburgh Village	Fairfax	Richford
Bakersfield	Fairfield	Sheldon
Berkshire	Georgia	Montgomery
Enosburg Falls	Highgate	

## Past & Current Activities

Over the past year, the NWCUD has been primarily focused on 1) addressing the immediate broadband needs of the region, and 2) building organizational capacity, 3) conduct broadband planning. To address immediate broadband needs, the NWCUD coordinated the deployment of Wi-Fi hotspots throughout the region and assisted local libraries with applying for funds to support purchase of technology.

The NWCUD has built its organizational capacity as it grew from 3 member municipalities to 14 over the course of the year. The NWCUD has strove to develop connections with both local providers and open access providers from other areas. Additionally, the NWCUD is currently in the process of hiring a broadband administrator and accountant to further increase its capacity to move towards broadband implementation.

The NWCUD has also been active in planning for a future broadband network. A survey of the region was completed to better understand broadband needs, with over 1,000 responses received. The NWCUD is currently collaborating with the Northwest Regional Planning Commission to complete a feasibility study and business plan for broadband in the region. Once complete, this study will assist the NWCUD with moving towards broadband implementation.

## Future Activities

Over the next six to nine months, the NWCUD plans to complete its business planning efforts and move towards more detailed planning work. Additionally, the NWCUD plans to continue to build connections with ISPs, electric utilities and other potential partners.



**Southern Vermont CUD (SoVT) Brief for  
Vermont Community Broadband Board (VCBB)  
August 6, 2021**

**About the CUD**

We are one of the smaller CUDs, representing 14 towns (plus one unincorporated town) with a total population of approximately 35,600 residents. We primarily represent the towns of Bennington County, along with the Windham County town of Londonderry. Londonderry, along with Winhall, are members of two CUDs: Southern Vermont and Deerfield Valley.

There are three defining characteristics of our service area: its existing level of connectivity, the distribution of its challenge areas, and the extensive presence of one existing provider. To the first point: according to the state's 2019 data, 87.5 percent of our locations were served by 25/3 Mbps or better, substantially above the statewide total of 77.3 percent; and our share of "underserved" was only 5.2 percent to the state's 6.8 percent share. To the second point, SoVT's population is principally concentrated around the well-served Route 7/Route 7A corridors, with our unserved and underserved populations widely distributed around the physical fringes of our service area in non-contiguous blocks. And to the third point, Consolidated owns or has access rights to nearly all the poles in the territory.

**About our Plans**

When the Rural Digital Opportunity Fund auction was announced, it looked to have some real implications for our region, so we asked RISI to hold off on the completion of our feasibility study. As it turned out, Consolidated was the clear winner in our service area, to the extent that RISI saw a viable path for our CUD only through partnership with a network provider or with another CUD. As the CARES Act and ARPA funding continued to unfold, we kept our options open for opportunities that would work well with our circumstances. The NTIA's Broadband Infrastructure Program seemed like an ideal match, and through May, June, and July we worked at an intense pace to issue an RFQ and meet all the grant's eligibility requirements around establishing a fully-vetted public-private partnership. At the end of July we selected Consolidated from multiple respondents, and are working now to submit our application. If our joint NTIA application is successful, the partnership will bring fiber to the home of more than half of our unserved and underserved locations by the end of 2022. Between RDOF and NTIA, we hope to see a significant and lasting resolution to the clear majority of our residents' persistent connectivity challenges, and we will turn our attention towards the work that remains.

**About our Needs and Concerns**

We have utilized the generous and deeply appreciated funding from the Department of Public Service and the Vermont Community Foundation to meet our operating expenses and to procure the legal, technical, and administrative support needed to navigate this challenging environment. We hope that the General Assembly will consider a modest annual appropriation for the CUDs, based on some formula to be determined, that will assist in securing those partnerships – or enabling operational independence – when the unexpected era of federal funding draws to a close.

*Prepared with assistance from Jonathan Cooper, Bennington County Regional Commission*

Mark Hyde, Chair  
Sheila Kearns, Clerk

Michael Corey, Vice Chair  
Melanie Dexter, Treasurer



August 5, 2021

Christine Hallquist  
Executive Director  
Vermont Community Broadband Board

Re: Maple Broadband needs and concerns

Dear Christine,

Thank you for taking the time to meet with Maple Broadband on Monday and giving us the opportunity to share our observations and areas of concern regarding the next steps in Maple Broadband's work. Please know that we celebrate your appointment to the VCBB because we know that you are as committed to this work as we are, and that you understand the central role that CUDs need to play. The comments below are based on a de-brief that I held with Magna Dodge who participated in Monday's call with Nancy Cornell, Rob Fish and you.

Issue 1: Standard network design

I applaud your interest in ensuring consistency among the fiber networks constructed by Vermont's CUDs, leaving open the future option of sharing backhaul, and developing a large ring that would improve resiliency for all CUDs. It is with a sense of urgency that we ask VCBB to expedite this process. Our engineering firm is scheduled to complete our high-level design later this month. Any downstream changes in our design will delay completion of the high-level design, possibly causing change-orders, related up-charges, and delaying all project milestones that follow.

Please also note that we are days away from executing a Network Management Agreement with an existing ILEC serving our region. That ILEC will be maintaining Maple Broadband's fiber network. To ensure compatibility with the ILEC's existing GPON network, we have limited flexibility regarding network architecture or hardware selection. Any significant changes to our network architecture now may impact the terms of our Network Management Agreement and could delay or negate our current plans.

I believe you will find that our network architecture is aligned with the approaches adopted by most, if not all CUDs. We will be deploying a Passive Optical Network and will be performing a cost/benefit evaluation to help us decide on 1G versus 10G. Please note that our network manager has standardized on Calix hardware, is fully trained on that product, and employs software tools customized to Calix. Please let me know as soon as possible what other information you need to help bring this issue to closure.

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Maple Broadband Member Communities

Addison  
Ferrisburgh  
Monkton  
Ripton  
Vergennes

Bridport  
Leicester  
New Haven  
Salisbury  
Waltham

Bristol  
Lincoln  
Orwell  
Shoreham  
Weybridge

Cornwall  
Middlebury  
Panton  
Starksboro  
Whiting



Issue 2: Advance purchase of long lead-time materials

We share the concerns you voiced about scarcity associated with every aspect of a fiber broadband build, and this scarcity includes electronics and fiber cable. While advance purchase of long lead-time materials may be the only way to mitigate this scarcity, we believe that it would be unwise for this role to be fulfilled by the State. Telecom materials distribution is a surprisingly complex business, and even if it is reduced to a handful of long lead-time items, it is not a role suited to administration by a government entity. Regardless of whether the State or an outsourced distributor were to handle distribution, it would by necessity increase complexity of an already complex goal and would likely lead to project delays that could be costly.

I suspect that each CUD is at a different state of evolution, and each must address timing and magnitude of pre-purchase in accordance with its own unique project plans. By supporting materials pre-purchased at the CUD level, complexity is constrained, and accountability is more clearly defined.

If discussions regarding advance material purchase proceeds beyond the theoretical level, I would appreciate the opportunity to participate in the task group that explores this option.

Thank you for the opportunity to share our concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "SHuffaker", written over a horizontal line.

Steve Huffaker  
Chair, Maple Broadband

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Maple Broadband Member Communities

Addison  
Ferrisburgh  
Monkton  
Ripton  
Vergennes

Bridport  
Leicester  
New Haven  
Salisbury  
Waltham

Bristol  
Lincoln  
Orwell  
Shoreham  
Weybridge

Cornwall  
Middlebury  
Panton  
Starksboro  
Whiting



## **Accomplishments to Date**

- Collaborated on Feasibility Study and Business Plan with WRC
- Joined statewide CUD association (VCUDA)
- Finance: Secured \$150,000 in federal and state funding and funding from VCF; established finance & administrative policies and procedures
- Operations: Interviewed multiple industry consultants, completed pole study in four towns, performed density mapping, issued RFP for pre-construction, construction, operation and ISP with open access
- Communications: Conducted community information sessions, town Selectboard reporting, and district data collection. Developed brand, website, quarterly newsletter, social media, and town newsletter and meeting reports
- Engaged in legislative advocacy
- Selected partner from RFP responses
- Memorandum of Understanding with GWI approved by Governing Board and signed by Chair in July, 2021
- Contract negotiations should be completed shortly
- Strong foundation of interaction between the public and private sector as we develop our partnership
- Excellent partner that shares our values: community ownership, net neutrality, certified B corporation
- Next steps, applying for PSD funding for pre-construction to do pole studies in rest of towns, make-ready, high level design, design and engineering in fall and winter with hope of next funding to begin construction next spring.
- Began with 5 towns at Town meetings in 2020, now 24 towns.

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**Otter Creek**  
communications  
union district

**Opportunity/Concerns:**

- Finding funds to support project administration or simply administration services for CUDs is critical. If they can't count on having funding to support this resource, it's hard to plan for the future.
- Opportunity to share such services between CUDs with similar characteristics (in terms of project scale, current ISP coverage, CUD goals, etc).
- For the sake of workforce development- it should be a goal to provide full-time work rather than part time.
- Financial administrative services are another example of a possible share service and a service that needs secured funding.

August 5, 2021



Dear Members of the Vermont Community Broadband Board,

On behalf of the Independent Telephone Companies of Vermont (the “Independents”),<sup>1</sup> congratulations on your appointment to the Vermont Community Broadband Board (the “Board”). The Independents have been providing local telecommunications services in their Vermont communities for decades – in some cases for well over a century – and provide high-speed broadband service to Vermonters in some of the most rural areas in the State. As statutory providers of last resort with federal and state Universal Service obligations, we continue to invest in our networks, and continue to meet the needs of our customers. We are local companies, deeply rooted in our communities.

Act 71 (H.360) recognizes our unique status by making the Independents eligible for broadband construction grants from the Vermont Community Broadband Fund. Each of the Independents is a small eligible communications carriers that has elected to be regulated under subsection 227d(a) of Title 30.

Each of the Independents are available to discuss with the Board the needs of our customers and the broadband construction projects we envision. We look forward to working with the Board over the coming weeks and months as we collectively pursue the goal of providing high-speed broadband to all Vermonters.

Sincerely,

Roger Nishi

Vice President - Industry Relations, Waitsfield and Champlain Valley Telecom

On behalf of The Vermont Independent Telephone Companies:

- Franklin Telephone Company
- Shoreham Telephone Company
- TDS Telecom:
  - Ludlow Telephone Company
  - Northfield Telephone Company
  - Perkinsville Telephone Company
- Topsham Telephone Company
- Vermont Telephone Company
- Waitsfield and Champlain Valley Telecom

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<sup>1</sup> The Independents are: Franklin Telephone Company, Inc., Ludlow Telephone Company d/b/a TDS Telecom, Northfield Telephone Company d/b/a TDS Telecom, Perkinsville Telephone Company, Inc. d/b/a TDS Telecom, Shoreham Telephone LLC d/b/a Otelco, Topsham Telephone Company, Inc., Vermont Telephone Company, Inc. d/b/a VTel, and Waitsfield-Fayston Telephone Company, Inc. d/b/a Waitsfield Telecom, d/b/a Champlain Valley Telecom.

# Vermont Independent Telephone Companies

- **EXPERTISE** (100+ years telco, 20+ Broadband)
- **ESTABLISHED TAXED BUSINESSES**
- **BUILDING BROADBAND NOW**
- **SERVING RURAL HIGH COST AREAS**
- **CARRIER of LAST RESORT**
- **BEST POSITIONED TO BUILD LAST MILE**
- **AFFORDABLE**



## Franklin Telephone Co., Inc. (established 1894)

- Started Fiber to the Home (FTTH) in 2014
- CARES/CRF Grants of \$45,690 to 24 locations connected
- Plans to continue FTTH. Cost and customer take-rate are issues (FTTH 20% take 10Meg, 13% take 50meg or higher)

## Shoreham Telephone Co., LLC (OTELCO)

- Remotes with high bandwidth capabilities of 100 meg
- Implementing significant network upgrades to deploy VDSL technology and increase speeds to 25/3 MB for 1200 locations during 2020-21
- Plans to continue broadband upgrades over coming years

## TDS Telecom (Northfield, Ludlow and Perkinsville)

- Remotes with high bandwidth capabilities of 100 meg
- 76% of the locations currently have 25Meg or higher capabilities (40% capable of 100Meg)
- 2020 Capital Investments for broadband upgrades in excess of \$850,000

## Topsham Telephone Co., Inc.

- Started FTTH in 2015
- CARES/CRF Grants of \$971,242 passing 350 locations
- Complete Telecom Switch conversion in progress
- Engineering and construction in process for more FTTH

## Vermont Telephone Company, Inc. (VTel)

- Invested \$100M VTel capital in VT network since 1994; 2011-2017 upgraded to 100% FTTH with RUS partnership
- Operates a 1,400 mile fiber-optic network extending thru Vermont to Montreal, NY and Boston
- Affiliated with VTEL wireless which provides 4G/LTE fixed and mobile wireless broadband statewide
- Plans to continue to invest in improving network reliability, redundancy and service offerings

## Waitsfield and Champlain Valley Telecom (established 1904)

- Started FTTH in 2011. Currently serves 4,500 FTTH locations
- CARES/CRF Grants of \$984,935 to extend to 224 locations completed, passed additional 63 locations
- Plans to build fiber to all customers in its service territory