

2023 VCBB Annual Report



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Vermont Community Broadband Board

Annual Legislative Report

Submitted to: Senate Committees on Finance and on Natural Resources and Energy, the House Committee on Energy and Technology, and the Joint Information Technology Oversight Committee

30 VSA § 8089. ANNUAL REPORT (a) Notwithstanding 2 V.S.A. § 20(d), on or before January 15 of each year, the Board shall submit a report of its activities pursuant to this chapter for the preceding year to the Senate Committees on Finance and on Natural Resources and Energy, the House Committee on Energy and Technology, and the Joint Information Technology Oversight Committee. The report shall include an operating and financial statement covering the Board's operations during the year, including a summary of all grant awards and contracts and agreements entered into by the Board. In addition, the report shall include a description of the progress each start-up communications union district has made in achieving long-term financial sustainability that is not dependent upon public funding, an update on its efforts to secure additional federal funds for broadband deployment, and progress made towards meeting the State's goal of ensuring every E-911 location has access to broadband capable of delivering a minimum of 100 Mbps symmetrical service as required in subdivision 202c(b)(10) of this title.

About the Vermont Community Broadband Board (VCBB)

Mission Statement

It is the purpose of the VCBB and Vermont Community Broadband Fund to support policies and programs designed to accelerate community efforts that advance the State's goal of achieving universal access to reliable, high-quality, affordable, and fixed

broadband. The VCBB was created to coordinate, facilitate, support, and accelerate the development and implementation of universal community broadband solutions.

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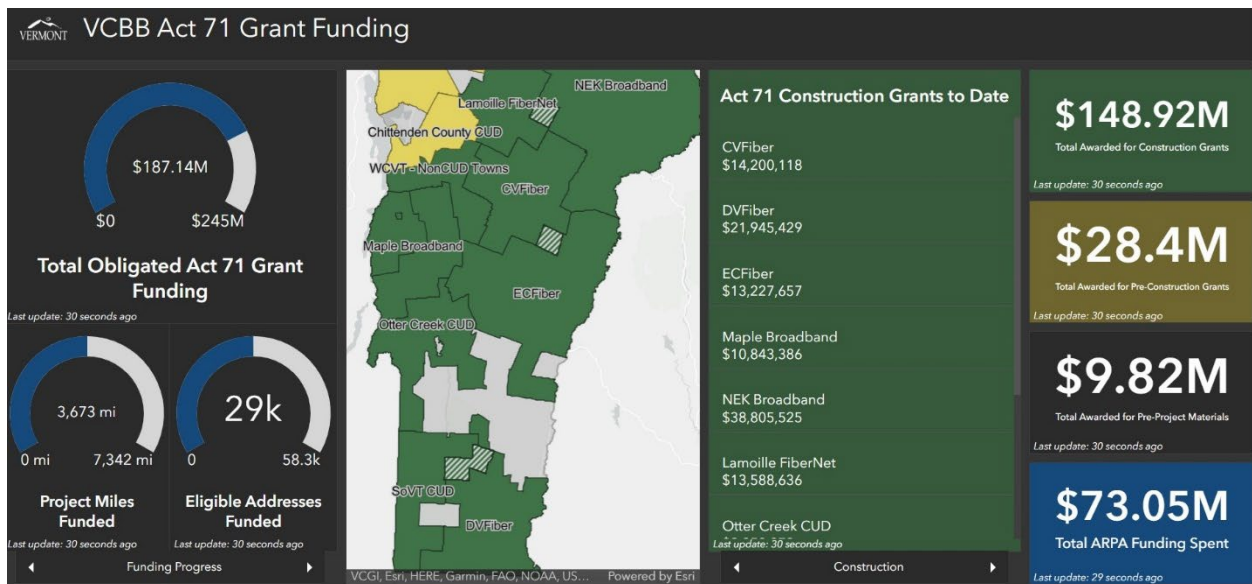
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Executive Summary

2023 was a year full of accomplishments. This report will show a snapshot of the progress VCBB made in fiscal year 2023, as well as where we are at the end of calendar year 2023, and our goals and next steps as we start 2024.

- Vermont is the only state committed to getting fiber to every on-grid address. Fiber is future-proof and provides the greatest bandwidth, highest reliability, and the lowest latency. Other states are falling back on wireless solutions. The topography and the extensive tree cover in Vermont does not allow for effective wireless solutions.

- Six out of ten CUDs are actively connecting previously underserved homes. Two CUDs held well-attended press events announcing their first customer connections, and several CUDs have significant numbers of customers requesting service. One CUD earned a bond rating based solely on the CUD's revenue from Standard and Poor's, a significant milestone in accessing capital markets.
- 800 miles have been built as of the end of the 2023 calendar year. That is approximately 15% of the total. Before construction started, detailed high-level design, budgeting, and make ready were completed.
- \$229 million federal allocation for BEAD. This is at least \$100 million more than was expected. The extra funds are due to the many challenges to the FCC National Broadband Map filed by Vermonters, VCBB staff, and CUDs.
- Submitted BEAD plans for approval. Vermont's BEAD Five-Year Action Plan was accepted by the NTIA. We are awaiting approval of the Initial Proposals Volume 1 and 2.
- Vermont's Draft Digital Equity Plan is ready for Board approval and to be submitted to the NTIA.
- Below is a summary of grant funding through the end of the 2023 calendar year:



Fiscal year 2023 started in July 2022 with the announcement of \$48.8 million in broadband construction grant awards to four of Vermont's Communications Union Districts (CUDs). \$26.5 million in additional grants were announced in October 2022 to two more CUDs and WCVT to serve underserved addresses that are not part of a CUD.

Also in October 2022, VCBB announced the expansion of the town match grant, in which VCBB matched town ARPA contributions to CUDs or eligible providers in towns not a part of a CUD up to \$100,000 for the buildout of broadband.

In November 2022, Chittenden County communities voted to form Vermont's tenth CUD. It started with five towns and has grown to include eight towns.

In December of 2022, VCBB issued a call to action, asking Vermonters to check the [FCC National Broadband Map](#) and challenge any incorrect data. Vermonters responded and so did the CUDs and VCBB staff. Thousands of challenges were filed to the FCC Map. This was of utmost importance because Vermont's allocation for the Broadband Equity, Access, and Deployment (BEAD) Program depended on how many underserved locations are on the map. The map showed many more addresses as served than they actually were. Vermonters filed individual challenges, and VCBB and CUD staff filed bulk challenges.

In June of 2023, the White House announced the amount of BEAD funding for each state and territory. Vermont has been allocated \$229 million, which is up to \$100 million more than we were expecting, thanks to the thousands of addresses that were challenged.

During the summer of 2023, VCBB awarded \$58.9 million in construction grants to five CUDs to bring broadband to at least 13,000 previously underserved homes and businesses.

In May 2023, VCBB began working on Vermont's BEAD and Digital Equity Plans. We did extensive public outreach and engagement throughout the state and incorporated the feedback into the [BEAD Five-Year Action Plan](#), [Initial Proposal Volume 1](#), and [Initial Proposal Volume 2](#).

The BEAD Five-Year Action Plan was submitted to the NTIA in August 2023 and was accepted. The Initial Proposal Volume 1 was submitted to the NTIA in September 2023. We are awaiting final approval, at which time the state-led BEAD challenge process will start. Initial Proposal Volume 2 was submitted to the NTIA in November 2023. We are awaiting approval.

A draft copy of Vermont's Digital Equity Plan was posted for public comment from December 1 through January 8. It is now ready for Board approval and to be submitted to the NTIA. Implementation of the plan will follow approval.

Workforce development efforts continued through the fiscal and calendar year 2023. As of the end of 2023, we have trained trainers for our Broadband Installer Apprenticeship Program and are scheduling dates to start training participants. We have partnered with the Vermont Department of Labor, IBEW, Vermont Works for Women, and Vermont employers to ensure our program is successful.

One notable point of 2023 was a report from the State Auditor's office, [Universal Broadband in Vermont: Managing Risks](#), which identified risks that could compromise the success of the buildout of broadband in Vermont. VCBB addressed each of the findings of the report and took action to ensure the continued success of our work.

Accountability

In response to that report, the VCBB is developing accountability policies. The Board decided on what policies were needed and divided into subcommittees to write them. They include affordability, annual report, construction standards, consumer standards certification, grantee agreement, liens, sunset provision, and untimely documents and agenda item changes.

Affordability and Low-Income Inclusivity

The VCBB recognizes that the affordability of broadband service is as essential as physical access to broadband infrastructure to achieve universal broadband service and to meet the public purpose of the Act. The VCBB seeks to implement both universal service and affordable broadband service as required by the Act or as required by federal funding programs distributed by the VCBB. VCBB awards grants for the construction of broadband networks and provisioning of broadband service to all Vermont locations regardless of resident income or property value. The affordability of broadband service is dependent on the circumstances of each consumer and the deployment and service costs of each grantee.

The Legislature has directed the VCBB in its annual report to address the ability of the CUDs to establish sustainable business plans. As part of its work, the VCBB is also mandated to “accelerate community efforts that advance the State’s goal of achieving universal access to reliable, high-quality, *affordable*, fixed broadband.”

Approved and funded network designs should therefore achieve universal service that provides broadband access to unserved and underserved locations, without regard to consumers’ ability to afford service. In addition, the proposed policy of the VCBB is to ensure grantees provide broadband service to locations that are the subject of the grant, with a range of business practices and service options that make broadband service financially available to as many Vermonters as reasonably possible without making operation of the network unsustainable.

Annual Report

Within the scope of broadband funding available to and distributed by the VCBB, the VCBB is accountable for the delivery of universal broadband service in the State of Vermont and to otherwise meet the public purposes of the Act, by setting policy standards and issuing an annual report to the legislature. 30 VSA 8086(c); 8089(a). The VCBB seeks to ensure that the grants it awards are used to implement universal and

reliable broadband service that is affordable as required by the Act, and to do so consistent with requirements of federal funding programs distributed by the VCBB.

The proposed Annual Report policy of the VCBB seeks to set standards for accountability for itself and its grantees, including designating metrics that are periodically evaluated and analyzed to measure the success of funded efforts to meet the goals of the Act and the federal programs. The VCBB shares the obligation for accountability with the Communications Union Districts, which are also accountable for performance by law. VCBB's accountability for the appropriate use of grant funds to deliver the required broadband service and operations extends also to non-municipal grantees, and to grant subrecipients and operators of grant-funded broadband infrastructure.

Transparency in the process and the purpose of the data is essential. Nevertheless, grantees are allowed to consider the route of proposed construction plans to be proprietary (with confidential disclosure to the VCBB) and individual customer addresses are confidential. The obligations of the VCBB must be clearly reflected in the metrics it reports. The terms of the grants under which the VCBB provides funding must clearly state grantees' obligations for data collection consistent with these metrics and timely reporting. Interim reporting may be required of grantees at the discretion of VCBB staff if required to protect the objectives of the program or the grant program from noncompliance.

This proposed policy focuses on the metrics for each standard, the source and format of data, the period of reporting, and the party responsible for reporting.

Consumer Standards Certification

The proposed policy of the VCBB, to meet the public interest in consumer protection and service standards, is to require certification of each grantee annually that it meets the service conditions described in Subsection 348(b) and quality assurance plan as required by VCBB and reporting. It is proposed that the grantee receiving Community Broadband Funds, and any owner of assets paid for in part by such funds, shall certify to the Secretary of Administration, with copy to the VCBB or its designee, the terms and conditions of 3 VSA 348(b) for a period of 20 years from the date of the grant award.

Grantee Agreements

This proposed policy will fulfill the VCBB's statutory obligation to establish policies, grant terms, and grant conditions that establish a process for reviewing and developing remediation commitments when a grantee either fails to comply with grant conditions or gives an indication that it might not be able to comply with a grant condition soon based on normal grant review processes performed by the VCBB and its staff. The proposed remediation process precedes, and attempts to avoid, progressing a grantee that has failed to meet grant conditions to be assessed under the proposed Recoupment and Transfer of Ownership Policy.

Liens

VCBB is created by statute to distribute funding and coordinate support to Vermont's CUDs and other internet service providers for the purpose of building and operating fiber networks for the distribution of broadband internet services in areas of Vermont where high-speed broadband is not otherwise available. The VCBB is authorized to, among other things, provide construction standards, set operating standards, and administer grants. The VCBB is charged to ensure accountability in distributing grants to broadband providers, and whether the accountability and public broadband interest is served by requiring a lien (UCC 1) in favor of the VCBB.

Most of the funding distributed by the VCBB is used to pay for goods and services (not real estate) and derives from federal programs. Those federal programs carry an obligation for the grant recipient to hold title to the assets paid for with the federal funds, and to execute a lien in favor of the federal government if the assets are encumbered. The form of lien is not yet available for review but is anticipated to be in the form of a UCC 1, and to require that the federal government "share" any first position with a third-party lender. The lien is intended to provide notice to the public of the federal government's public interest, the obligations of the grant, and the method of calculating the value of the federal interest in the assets if they are liquidated. The lien is narrowly ascribed to the funded assets. The VCBB is discussing the scope of the public interest in broadband that the Vermont legislature has entrusted to the VCBB to administer, and whether the scope of that interest overlaps with the federal interest.

Sunset Provision

The VCBB is scheduled to sunset in 2029. This proposed policy will recommend to the legislature how to continue to serve the purpose of Act 71 beyond this date. This will include the language needed in contracts to ensure on-going performance from grantees. Transfer of obligations to other state entities should first look to CUDs which are special purpose entities created by the state which will live on past Act 71 and to the courts for investments in regions not covered by a CUD. By 2029 all construction will be complete. The proposed policy will address management of the assets that were created by the grant funds.

Proposed Construction Standards Policy

The VCBB is to implement Universal Service as required by Act 71 by establishing policies and construction standards that adopt industry-accepted engineering standards, which promotes network reliability, resiliency, and interoperability. The intent of this proposed policy is to provide Grantees construction and design guidance while supporting flexibility to meet network goals, business objectives, and in compliance with industry standards.

The objective of the proposed policy, as outlined in the Act and summarized here, is to ensure at a minimum that:

- Any alternative operator can reasonably assume operation of the facilities and network without interruption, substantial cost, or effort. (8086 C.4)
- Ensures design and installation promotes network reliability, resiliency, and interoperability (8086 C.2)
- All performance measures meet the purchased service level and can deliver a minimum 100MB/100MB for subscribed customers (8086 F.1)
- Demonstrates utilization of available partnerships for cost effective broadband deployments (8086 B.1; 8086 B.6)
- Demonstrates sustainable usability and scalability for life of the installed asset for shared provider access and other public purposes (8086 B.7)

To meet these goals, VCBB intends to build fiber optic networks. While the definition of fixed broadband under the Act, as amended, includes retail service by wire or radio that delivers service at speeds of at least 100/100 Mbps, it is the policy of the VCBB to prioritize the funding of fiber networks that deliver 1/1 Gbps, use existing infrastructure, including the use of utility poles and power, in the public right of way, even though the cost of construction may be higher than other methods, in order to meet the Act’s objective of providing the highest standard of connectivity speed, reliability, resilience, and interoperability of broadband service. Nevertheless, radio fixed wireless, where it meets the VCBB’s standards for accountability for the public interest, and including but not limited to affordability, reliability, resiliency, and interoperability, is an acceptable means of delivering broadband service as defined in the Act.

Proposed Untimely Documents and Agenda Item Changes Policy

The VCBB shall avoid adding agenda items unless it is necessary and is consistent with the recommendations of the Vermont Secretary of State’s Office (SOSO). The SASO cautions that “last-minute agenda items, especially those requiring Board action, be added at a meeting only in an emergency,” and that the better practice is “to handle items that were not included on the posted agenda at the next regular meeting or, if necessary, to call a special meeting so that the public gets notice of the item and has an opportunity to attend and participate.” The Open Meeting Law allows public notice “as soon as possible before the meeting” where an emergency meeting is necessary to respond to an “unforeseen occurrence or condition”. 1 V.S.A. § 312(c)(3). Thus, a practice to limit the addition of agenda items to circumstances where it is necessary.

Operating and Financial Statement

Below is the operating and financial statement for the VCBB for the State Fiscal Year 2023. *Please note that while the remainder of this document reports on achievements from calendar year 2023, the fiscal report represents the state fiscal year.*

The report outlines the fiscal expenditures made to achieve the policies, goals, and investment priorities for broadband infrastructure for the state fiscal year July 1, 2022 – June 30, 2023. The funds came from the \$150 million appropriation that was committed by the legislature through Act 71 of 2021 (and appropriated through Act 74 of 2021, the FY23 state budget), and additional funds from Act 9 of 2021, the Covid-19 relief bill. Also included is the portion of the Universal Service Fund that has been committed to the VCBB. We also received new grants (BEAD Planning Grant, Digital Equity Planning Grant, and NBRC) which became effective during state fiscal year 2023.

VCBB Fiscal Year 2023 Revenues and Expenditures		
Revenues		
Funding Source	Total Awarded	SFY 2023 Expended
Universal Services Fund	827,945.16	1,952,882.12
BEAD Planning Grant	5,000,000	301,073.93
Digital Equity Planning Grant	518,154.20	48,737.82
NBRC	1,250,000	17,909.00
ARPA-SFR (Act 74)	150,000,000.00	45,120,214.87
H.315 (Act 9)	1,800,000.00	161,305.31
Total		\$ 47,602,123.05
Expenditures		
Personnel		876011.24
Board Costs		11000
Grants		45785065.90
Contracts		834165.12
Internal Service Fees		52928.29
Travel and Training		25275.68
Equipment and Software		11487.65
Supplies		1406.25
Misc Costs		4782.92
Total		\$ 47,602,123.05

Grants

Securing the Public Interest Through Shared Expertise and Services (SPISES) Program

As Vermont has accelerated the build-out phase of its community-owned broadband infrastructure, the VCBB recognized that there was a growing need for shared services across the Communications Union Districts (CUDs) for experienced experts who can guide implementation, transition to operations, compliance, and sustainability/growth. In an effort to provide for these needs, the Securing the Public Interest Through Shared Expertise and Services (SPISES) Program was created through funding provided by a grant from the Northern Borders Regional Commission (NBRC). This grant funding to

the VCBB allowed a sub-grant to be executed with the Vermont Communications Union District Association (VCUDA) in the amount of \$1,219,763.17.

This SPISES grant award will provide seed funding to VCUDA to support functions that will increase its ability to support the CUDs. Eligible expenditures under this grant award include the funding of a shared financial expert, the costs of hiring a program coordinator, and additional capacity needs as approved by the VCBB. These specific deliverables enjoy strong support from most CUDs, represent urgent and immediate needs, and are functions that are appropriately to be provided by VCUDA.

Act71 Preconstruction Grant Program

As provided by Sec. § 8085 of Act 71, which became law on June 8, 2021, the purpose of the [Broadband Preconstruction Grant Program](#) is to provide grants to CUDs for preconstruction costs related to broadband projects that are a part of a universal service plan and meet other criteria as specified in Act 71. As provided by Sec. 2 § 8085 of Act 71, eligible costs include expenses for feasibility studies, business planning, pole data surveys, engineering and design, and make-ready work associated with the construction of broadband networks, including consultant, legal, and administrative expenses, and any other costs deemed appropriate by the Board.

Additional funds were added to the program for Implementation and Materials Costs. Each CUD has an allocation available to them for pre-purchase of materials under the Pre-Construction program, and additional funds beyond this allocation must be transferred into their Materials Supplement fund from their Construction Grant allocation.

Act71 Construction Grant Program

As provided by § 8086 of Act 71, which became law on June 8, 2021, the purpose of the [Act 71 Broadband Construction Grant Program](#) is to provide grants to eligible entities to finance the broadband projects of eligible providers that are part of a Universal Service Plan. Service providers must achieve speeds of at least 100/100 Mbps symmetrical at all on-grid underserved and unserved locations within their Universal Service Plan.

Eligible applicants are (A) a Communications Union District (CUD), (B) a small communications carrier, or (C) an Internet service provider working in conjunction with a Communications Union District to expand broadband service to unserved and

underserved locations as part of a plan to achieve universal broadband coverage in the District.

Town ARPA Match Program

The VCBB agreed to match Town ARPA contributions Communications Union Districts and other small provider solicited from towns. The [Town ARPA Match Program](#) resulted in the leveraging of over \$2.8M dollars in additions funds toward the construction of broadband networks.

Broadband Financing Program

In 2020 the General Assembly appropriated \$1.5 million in general funds for the purpose of supporting the efforts of the CUDs to secure financing necessary to advance broadband projects. In fiscal year 2021 funds were appropriated from the general fund as follows: \$1.5 million to the Department of Public Service to be awarded as grants to CUDs. These grants were to be used to provide cash equity to secure loans to finance broadband projects including the ten percent of project costs required to secure financing through the Broadband Loan Expansion Program administered by the Vermont Economic Development Authority. A CUD could not receive more than \$400,000 in awards under this appropriation via this [Broadband Financing Program](#).

The chart below summarizes the Act 71 Preconstruction and Act 71 Construction grants that the VCBB has issued from its founding until December 31, 2023. Funding for both programs was provided by \$150 million in Coronavirus State and Local Fiscal Recovery Funds as part of the federal American Rescue Plan Act (ARPA) in 2021 and an additional \$95 million from the ARPA Capital Funds Program appropriated to the VCBB by the General Assembly in 2022.

	Original Total Allocation	Pre-C Implementation Costs (Materials)	Shift to Construction	Match Program Allocation Shifts	TOTAL Allocation	Total Awarded as of 12/31/23	Remaining
Act 71 Pre-Construction Project List							
Maple Broadband	4,202,083	418,806	362,478		4,983,367	4,983,367.00	-
CVFiber	2,804,667	410,186	5,589,814		8,804,667	8,804,667.00	-
DVFiber	4,122,703	468,141	640,659		5,231,503	5,220,118.00	11,385.00
ECFiber	3,218,067	274,170			3,492,237	2,841,130.00	651,107.00
Lamoille Fibernet	2,563,363	281,652	-		2,845,015	2,563,362.53	281,652.47
NEK Broadband	6,670,000	1,353,915	-		8,023,915	8,023,915.00	-
NwFiberWorX	3,558,933	399,674	323,949		4,282,556	3,987,106.00	295,450.00
Otter Creek	1,705,442	203,605			1,909,047	1,349,936.17	559,110.83
Southern Vermont	854,742	183,851			1,044,593	-	1,044,593.00
Chittenden County	300,000	-			300,000	300,000.00	-
TOTAL	30,000,000	4,000,000	6,916,900		40,916,900	38,073,602	2,843,298.30
Act 71 Construction Project List							
Maple Broadband	11,205,864		(362,478)	415,000	11,258,386	10,843,386	415,000
CVFiber	19,789,932		(5,589,814)	863,000	15,063,118	14,200,118	863,000
DVFiber	22,586,088		(640,659)	217,852	22,163,281	21,945,429	217,852
ECFiber	13,227,657				13,227,657	13,227,657	-
Lamoille Fibernet	13,588,636		-	225,900	13,814,536	13,588,636	225,900
NEK Broadband	65,321,385			816,334	66,137,719	38,805,525	27,332,194
NwFiberWorX	20,219,979		(323,949)		19,896,030	-	19,896,030
Otter Creek	9,971,393				9,971,393	9,952,273	19,120
Southern Vermont	9,159,571				9,159,571	9,009,085	150,486
Chittenden	1,635,369			50,000	1,685,369	-	1,685,369
Other Towns	6,343,700			(2,831,916)	3,511,784	-	3,511,784
wCVT	17,950,426			243,830	18,194,256	17,348,243	846,013
TOTAL	211,000,000	-	(6,916,900)	-	204,083,100	148,920,352	55,162,748
Total ARPA Grants	241,000,000	4,000,000	-	-	245,000,000	186,993,954	58,006,046

The chart below summarizes the increase in grants under both the Act 71 Preconstruction and Act 71 Construction grants that the VCBB has issued from 6/30/23 to 12/31/23. Over \$59 million in new grant awards were approved by the Board during this time period.

	Total Awarded as of 6/30/23	Total Awarded as of 12/31/23	Change
Act 71 Pre-Construction Project List			
Maple Broadband	4,983,367.00	4,983,367.00	-
CVFiber	8,804,667.00	8,804,667.00	-
DVFiber	5,220,118.00	5,220,118.00	-
ECFiber	2,841,130.00	2,841,130.00	-
Lamoille Fibernet	1,622,057.53	2,563,362.53	941,305.00
NEK Broadband	8,023,915.00	8,023,915.00	-
NWFiberWorX	3,558,933.00	3,987,106.00	428,173.00
Otter Creek	441,000.00	1,349,936.17	908,936.17
Southern Vermont		-	-
Chittenden County	300,000.00	300,000.00	-
TOTAL	35,795,188	38,073,602	2,278,414.17
Act 71 Construction Project List			
Maple Broadband (includes Maple WCVT)	8,686,000	10,843,386	2,157,386.00
CVFiber	14,200,118	14,200,118	-
DVFiber	21,945,429	21,945,429	-
ECFiber	-	13,227,657	13,227,657.00
Lamoille Fibernet	-	13,588,636	13,588,636.00
NEK Broadband	20,865,889	38,805,525	17,939,636.00
NWFiberWorX	-	-	-
Otter Creek	-	9,952,273	9,952,273.00
Southern Vermont	9,009,085	9,009,085	-
Chittenden		-	-
Other Towns		-	-
WCVT-Non-CUD Towns	17,348,243	17,348,243	-
TOTAL	92,054,764	148,920,352	56,865,588.00

CUD Finance Program

[NEK Broadband](#) is comprised of over 50 towns primarily in the Northeast Kingdom. On October 31, 2022, the Board voted to award \$400,000 to NEK Broadband from the Broadband Finance Program for the purpose of securing a loan from the Vermont Economic Development Authority (VEDA) to serve as the non-federal match for a roughly \$24 million grant from the USDA ReConnect Program. The Board recognizes that this grant will enable NEK Broadband to lower financing costs, leverage additional funding, accelerate the build-out of its universal service plan, and access the preferred financing source available at this time.

The \$400,000 grant will initially be used as a debt service reserve with VEDA and also allow NEK Broadband to borrow less from the Vermont Economic Development Authority (VEDA). This, in turn, enables NEK to take advantage of an SBIC program lowering the interest rate by 1%. The Board also agrees that the financing offered by the VEDA program is the preferred source of funding for the match since the VEDA program does not require principal or interest payments for three years. Furthermore, the \$24 million USDA ReConnect grant will cover most portions of northern Essex County, eastern Caledonia County, and eastern Orleans County. The density in these areas is less than 5 people per square mile and therefore requires supplemental grant funding support.

Contracts/Agreements Entered into by the Board

GIS Services – Stone Environmental

Amount of Contract Amendment: \$200,000

Purpose: The purpose of this contract amendment is to continue updating Vermont's Broadband Atlas and develop the necessary interactive GIS web applications to provide ongoing information status and capability to track progress updates for Act 71 Funding Programs. Turnover in staffing at the Public Service department required additional support from Stone for Vermont's Broadband Availability Map, and Stone Environmental completed the aggregation, processing, and analysis of Internet Service Provider data to identify availability of Internet service level across the state.

The scope of work was amended to prepare and submit modifications to reflect data that is not present in the National Broadband Map by working with state leaders to refine methodology for aligning Vermont's Broadband Map and the FCC Location Fabric to ensure all E-911 addresses are accurately included. Additionally, Stone prepared data for Vermont's BEAD Initial Proposal Eligible Location Classifications, including data compilation and aggregation to identify unserved locations, underserved locations, and Eligible CAIs using the most recently published National Broadband Map and developing the methodology, processing, and analysis of broadband service eligibility data to assist with Vermont's State-Led BEAD Challenge Process, creating a portal for challenge submissions, reviews, and final adjudication to finalize the BEAD eligibility dataset. This work is planned to continue through June, 30 2024.

Fiber Optics Engineer Services – CTC Energy and Technology

Amount of Contract Amendment: \$200,000

Purpose: CTC Energy and Technology was the vendor selected in 2022 to review and evaluate Act 71 Construction Grant Applications including applicants' business plans, universal service plans, reports, drawings, and calculations. CTC provides expert advice to the VCBB Governing Board that identifies key questions to ask applicants, confirms compliance with Outside Plant Design Standards and best practices for resilient and

redundant networks, and provides recommendations for improvement. This contractor provides resources to support the application process, monitoring, and reporting to ensure accountability and efficient technical assistance to grantees pursuing the phased approach plans outlined in the Act 71 Broadband Construction Grant Program RFP. This Contract and the review and suggestions provided ensure the effective use of existing state assets and compliance with Outside Plant Design Standards set by the VCBB, among other goals established by Act 71. The contractor also examines plans collectively to ensure the resulting statewide network follows good design practices and provides an assessment of notable issues and/or concerns to the Board.

BEAD & Digital Equity Plans & NTIA Proposals – Vernonburg

Amount of Contract: \$895,720

The subject matter of this contract is to assist the VCBB in the development of Vermont's Internet for All Plans and proposals for federal funding from the National Telecommunications and Information Administration (NTIA). The Contractor works at the direction of the VCBB to provide strategic program development services, research and data analysis, community outreach and engagement, and writing services to facilitate the development of Vermont's 5-Year BEAD and State Digital Equity Plans and Vermont's Initial Proposal for funding under the BEAD Program that meet the requirements set forth by the NTIA Internet for All Programs.

Rural Innovations/RISI

RISI provided the VCBB will an analysis of rules and requirements detailed in the Broadband Equity Access and Deployment (BEAD) Notice of Funding. The analysis examined whether there were any conflicts between Vermont's broadband expansion strategy and the BEAD program, outstanding questions that required clarification from the NTIA, and strategies to explore when crafting Vermont's program.

Amount: \$15,000

IceMiller/Qualified Ventures

Ice Miller and Qualified Ventures provides strategic advice to the VCBB regarding funding and financing. This included drafting a proposal to the Treasury's Local Investment Program to fund a Letter of Credit to enable public entities to participate in the BEAD program. The proposal was not considered due to the July flooding disaster. IceMiller also provided introductions to other potential funding sources for the Communications Union Districts and affordability efforts.

Amount: \$17,909

Well Told Films – 7/24/23

Amount: \$35,000

Purpose: This contract is to shoot, produce, and edit high-quality videos for outreach and marketing purposes. This included working with VCBB staff on pre-production to develop the creative concept and script, shooting interviews and B-roll at various locations across the state, and producing and editing into a final 30- minute documentary and a shorter form outreach video. The contract also includes shooting, producing, and editing a shorter video for marketing for the Workforce Development Plan Apprenticeship Program, which will include shooting at locations where the job training program is taking place.

CUD Update

CVFiber

CVFiber retained NRTC to develop a business plan in June of 2022 and is in the process of updating the plan and business model based on what was learned during its first construction season in 2023. CVFiber based its ARPU and long-term business plan on the anticipated take rates and construction pace, as well as materials costs and market conditions.

CVFiber has investigated and continues to investigate Reconnect and other federal funding opportunities with its retained financial analysis partner NRTC.

CVFiber built 202 miles of fiber during its first construction season in 2023, which reflects 1,563 passings. CVFiber connected 56 customers in 2023. It continues to press forward with an aggressive winter installation schedule in partnership with Waitsfield and Champlain Valley Telecom and continues constructing in five of its twenty member towns.

Northwest FiberworX

Northwest FiberworX has secured its partnership with GWI for network operations and ISP services. Under the agreement Northwest has a guaranteed revenue share, creating long-term financial sustainability. Northwest is seeking to apply in early 2024 for Act 71 Construction and BEAD funding.

ECFiber

During 2023 EC fiber completed its original mission of bringing broadband to all locations in its original 23 town footprint and began work on building out in three of the eight new towns that added in 2020.

This year our \$7.5 million bond received a BB rating from Standard & Poor's Global Credit arm. This represents the first time any CUD has secured a municipal revenue bond backed only by revenues of the system (rather than by the taxing power of the entity, guarantee of exclusivity, etc.) The rating demonstrates that our model of bringing

broadband to rural Vermont is recognized, not only by our customers, but also by financial markets.

Otter Creek

OCCUD has recently been awarded and has signed a pre-construction grant agreement which provides funding to work on development of financial sustainability and operational plans for the future of OCCUD. OCCUD has just posted a Request for Proposals for an executive director to carry out this task.

A significant area of the OCCUD territory, consisting of ~1420 unserved addresses, will now be served by an ISP with E-ACAM federal funding. This recently approved plan allows OCCUD to build the rest of its territory with the currently awarded VCBB construction grant and even reduces and amends the grant request by a significant amount (close to \$1.5 million).

OCCUD is planning for high-speed broadband service to be available to all of its underserved addresses in 2024. (Some outliers may have service available in early 2025).

OCCUD now has two established ILEC providers offering high-speed broadband services to previously unserved addresses in our CUD area. The ILEC provider funded through the VCBB grant is scheduled to begin construction in June 2024, with plans to release the system for sales in November 2024 Surveys. Detailed engineering and procurement activities are slated to take place January to May 2024. Meanwhile, the ILEC not funded by the VCBB grant is currently in the process of building their network and will continue construction throughout 2024, aiming to serve most, if not all, addresses by the end of the year.

Southern Vermont CUD

The Southern Vermont CUD (SoVT CUD) Board is currently working on identifying the ongoing organizational requirements and funding model for sustainability. The SoVT CUD is not currently seeking additional federal funds for broadband deployment.

The SoVT CUD has completed its planned construction program (Stages 1 and 2), making fiber broadband service up to 2Gb symmetrical available to over 99% of eligible locations. The CUD has identified 17 remaining eligible, unserved locations and is currently working on identifying viable strategies for service at these locations. This Stage 3 effort will be a focus of work for the SoVT CUD Board in 2024.

Chittenden County CUD

The CCCUD is looking to form a public/private partnership with one or more ISPs to deliver high speed internet service to the unserved and underserved sites in its district and ensure compliance with the public funding it is awarded for this purpose.

The CCCUD is still considering whether additional federal funding will be necessary and if it will be in line with its business plan. The CCCUD finalized an RFP for internet service providers, which was released on December 8, 2023.

Maple

Maple Broadband launched active service in February, 2023. Our revenue from services was just over \$70,000 through the end of November, and our projected revenues for 2024 are over \$500,000. Take rate in the first areas to launch was over 27% in under one year of service, exceeding business plan projections. The first step in financial sustainability is to show customer demand and demonstrate traction.

At present there are nearly 150 active customers and another 250+ in the installation pipeline across the Phase 1 build area, which is projected to be completed in early 2024.

Maple Broadband conducted exploratory calls with multiple financial institutions in 2023 either individually or through VCUDA, including VEDA, Municipal Capital Markets, Key Bank, PFM, Connect Humanity, Mayfair Capital, and Post Road. We are currently refining our financial modeling in order to determine the exact amount of private funding that we anticipate will be necessary, presuming that we are successful in our BEAD application, and our 2024 budget calls for obtaining \$3 million of private funding in Q4 2024.

At the end of 2023, Maple Broadband had active service across 103.7 miles and 1,259 passings. 1,041 of those passings had service speeds less than 100/20 when construction began in late 2022.

Lamoille FiberNet

In 2023, Lamoille FiberNet assigned a task force to develop a Sustainability Plan, which will include governance, compliance oversight, budgeting, and strategic planning. Because LFCUD's CCI partnership does not include revenue sharing, the task force will explore alternative funding opportunities. The committee's first progress report is expected at the February 2024 Governing Board meeting, with a final report and recommendations in Q4 2024.

LFCUD's 2024 Plan includes designing and securing funding for Phase 2. In addition to maximizing available ARPA funding, LFCUD is exploring BEAD grants and USDA funding. Although not deployment per se, LFCUD also anticipates participating in digital equity and adoption programs, whether state, federal, or privately funded.

LFCUD secured VCBB grant and private funding to fully-fund and construct Phase 1 (86%- 4,170 of unserved and underserved addresses). Our construction schedule anticipates completing Phase 1 by December 2024.

LFCUD's 2024 Plan includes designing and securing funding for Phase 2 during 2024, with construction completion by December 2025. Phase 2 is equal to or less than 633 addresses or 80 miles, and when finished will achieve our universal service plan for on-grid addresses in LFCUD's footprint. Based on investments by other providers and updated serviceability information, LFCUD is confident its Phase 2 will be smaller in scope and cost than currently anticipated.

DVFiber

Over the past year, DVFiber has successfully initiated the construction of its network and has begun connecting customers. We have constructed and lit more than 60 miles of our network which passes more than 500 locations. The receipt of customer revenue and ongoing construction to expand our network are milestone steps towards long-term financial viability and independence from public funds.

DVFiber has applied for other federal funds, namely the Northern Border Regional Commission Catalyst Program. We continue to research and actively pursue additional federal programs, such as BEAD and USDA, that may be applicable to this project.

DVFiber's currently constructed network, which is capable of providing at least 100/100 Mbps service, passes more than 370 un/underserved locations in Readsboro and Stamford.

NEK Broadband

NEK Broadband gained significant traction, capacity, and results in its monumental task of getting fiber internet to all the unserved and underserved households in Essex, Orleans, and Caledonia counties and the town of Wolcott in Lamoille County. We expanded our network in the Concord, Lunenburg area to include most of Waterford, and then launched new areas in parts of Lyndon, St. Johnsbury, Wheelock, Walden, Danville, and Kirby. As of the end of 2023 NEK Broadband had constructed fiber optic infrastructure to serve just over 200 miles of roadway servicing over 2000 premises. We doubled our number of customers and now 179 households and businesses enjoy fast, reliable internet service. To build capacity, we added a second construction contractor, some key staff positions, and we now have three warehouses in Danville, St. Johnsbury, and Brighton. On the horizon are network activation in parts of Peacham, Barnet, Sutton, Lowell, Irasburg, Westfield, Troy, and Newport Town, as well as additional areas of Walden, Concord, and Lunenburg. Stories of customer elation in finally having reliable, fast internet inspire us to keep picking up speed as we dive into 2024.

In addition to the \$65 million allocated under the Construction Fund, and the \$8 million under the PreConstruction Fund, NEK Broadband has secured an additional \$17,463,911 from a USDA Rural Utilities Service ReConnect 4 grant and a \$5,821,304 loan from the Vermont Economic Development Authority to be used as match for the

ReConnect grant. NEK Broadband has participated in national level conversation providing testimony to members of the U.S. Senate, speaking at national conferences, and participating in a coalition that was instrumental in helping reduce the letter of credit requirements under BEAD. NEK Broadband continues to identify other potential funding sources such as applying for USDA Community Connect, leveraging wholesale agreements with RDOF participants, and preparing for a substantive BEAD application.

NEK Broadband's universal service plan calls for up to 2,800 miles of fiber optic infrastructure. We have designed roughly 50% of those miles; put in make-ready applications for over 1,000 miles, and secured permits for nearly 500 miles. Service is about more than just having access; it is also about affordability. In addition to participation in the Affordable Connectivity Program (ACP), NEK Broadband has started a digital equity program that provides an additional \$25 discount per ACP participant.

Next Steps

\$20 Million in BAA

\$30 million was set aside for VCBB to use as match for a federal grant program in last year's Budget Adjustment Act (BAA). After the flooding in July 2023, \$20 million of that was borrowed to go to flood relief efforts. That \$20 million is currently in this year's BAA, it was approved by the House and is expected to be voted on by the Senate this week.

Funding Nontraditional Drops

VCBB is working on solutions to fund nontraditional drops including drops to long driveways (greater than 400 ft), to manufactured home communities, and underground utilities.

Bridge Funding

Another next step for VCBB is ensuring bridge funding to keep the crews that are working on building broadband infrastructure working through any possible gaps in funding. This would ensure the work continues to progress and avoid costs associated with stopping and restarting work, which is complicated by worker shortages. It also keeps revenue coming into the CUDs.

Affordability Program

Universal service is central to our mission. In order to achieve that, service needs to be affordable for all Vermonters. The Digital Equity Plan aims to achieve that, and VCBB continues to explore additional ideas and potential programs to ensure affordability.