



# VERMONT

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## **VERMONT COMMUNITY BROADBAND BOARD**

**Presentation to the House Committee on Energy and the Environment  
January 12, 2023**

Christine Hallquist, Executive Director  
Rob Fish, Deputy Director

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[HTTPS://PUBLICSERVICE.VERMONT.GOV/VCBB](https://publicservice.vermont.gov/vcbb)

The Vermont Community Broadband Board (VCBB) was established by Act 71 (2021), an act relating to accelerated community broadband deployment.



# Act 71 (2021)

## Created the VCBB and Charted Path Forward

**Recognizes this a once in a life-time opportunity - future proof investments**

Requires speeds of at least 100/100 Mbps

Act 71 requires a Universal Service Plan

Communications Union Districts (CUDs) are the primary implementation vehicle

A company in Vermont that operates in less than 5 counties is also eligible for direct funding. Companies with a larger footprint can partner with a CUD

Not just about constructing broadband, but also providing technical support and accountability

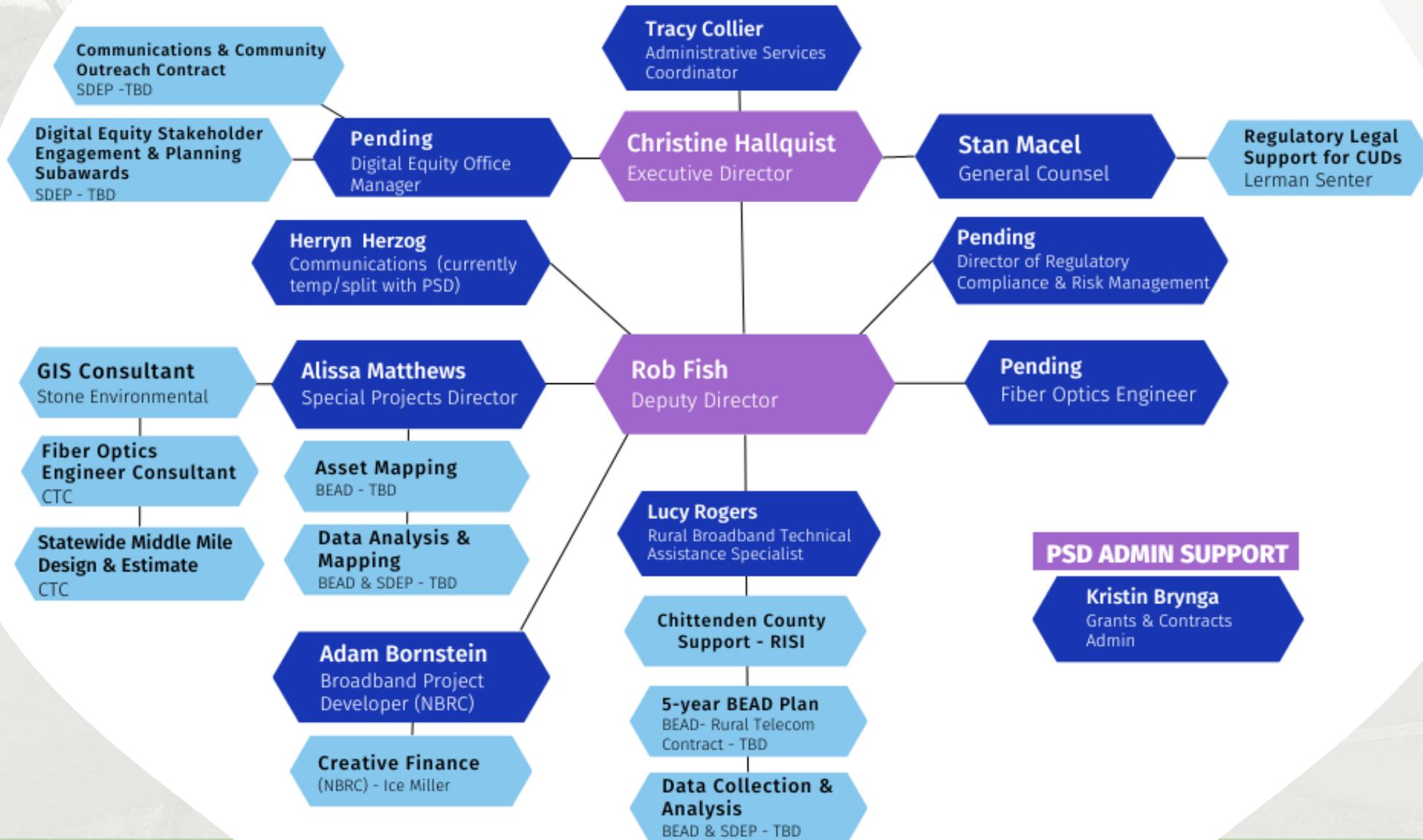
# Mission

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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.

# VCBB STAFF & CONTRACT SUPPORT





# 2022 Highlights

# Main Areas of Focus

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## Capacity

Build internal VCBB capacity while assisting the Communications Union Districts (CUDs) to have the capacity and funding to carry out the goals of ACT 71 and comply with federal grant requirements.

## Construction

Commit funds to enable eligible providers to construct networks and connect addresses as part of their Universal Service Plans.

## Performance and Accountability

Increase accountability and oversight to ensure ongoing financial success of all grant recipients, including support and review of individual CUD business plans.



# Public Accountability

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**First Meeting –  
August 2021**



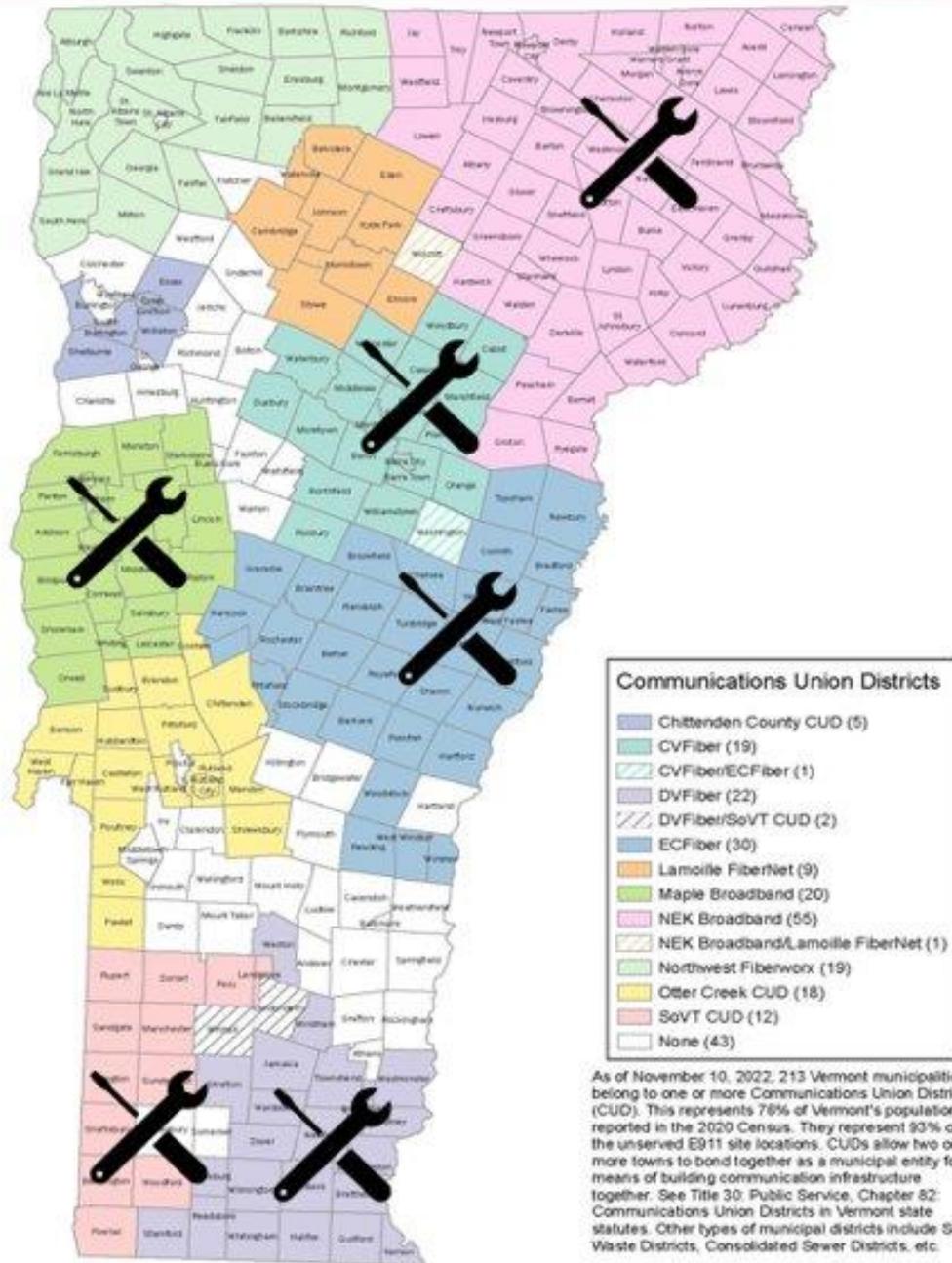
**43 Public Meetings  
4 hrs each**



**Average  
attendance 30  
participants**



**Minutes and  
Recordings Posted  
on Website**



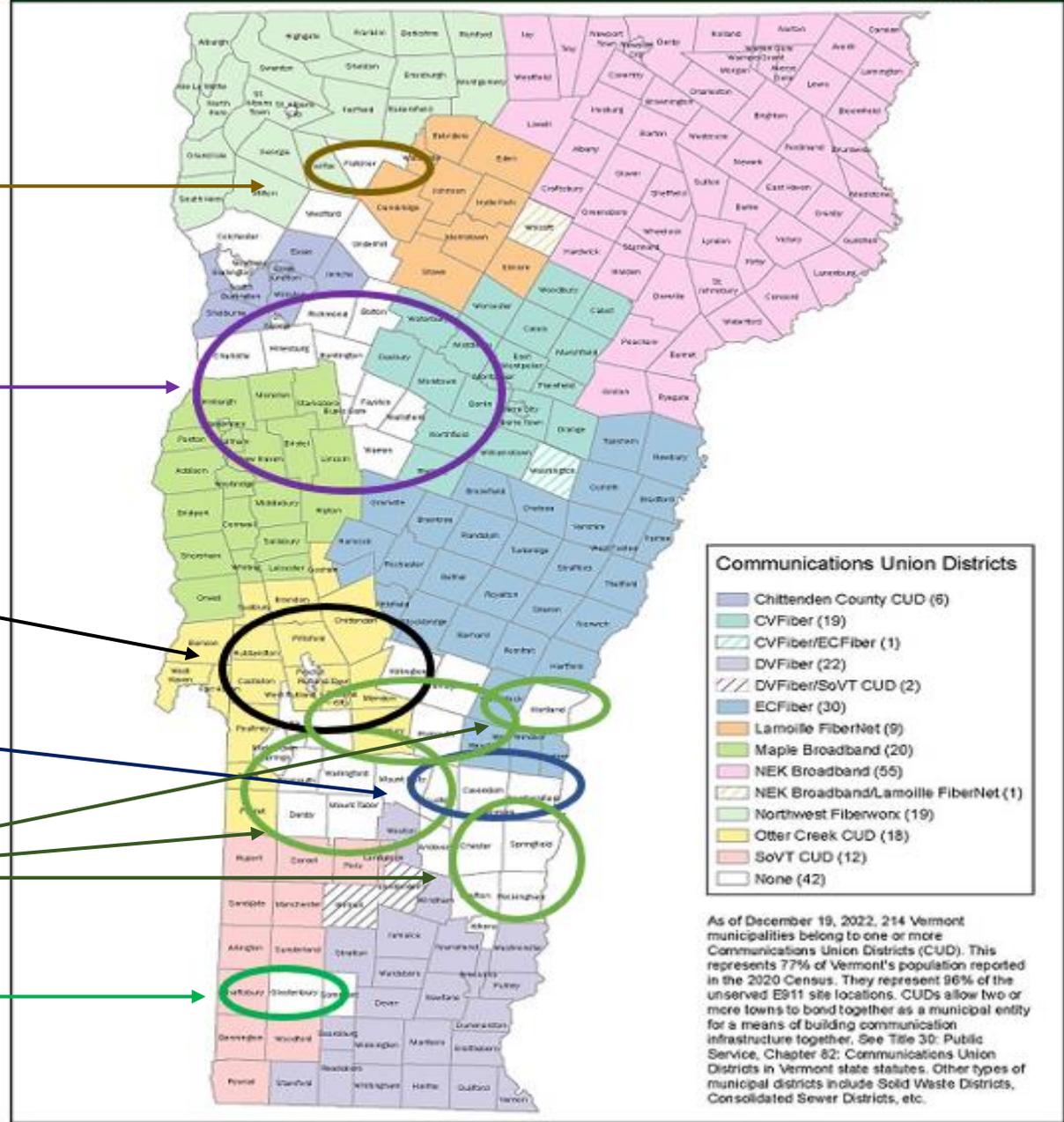
Progress meeting Vermont's goal of 100/100 mbps broadband service at every E-911 location:

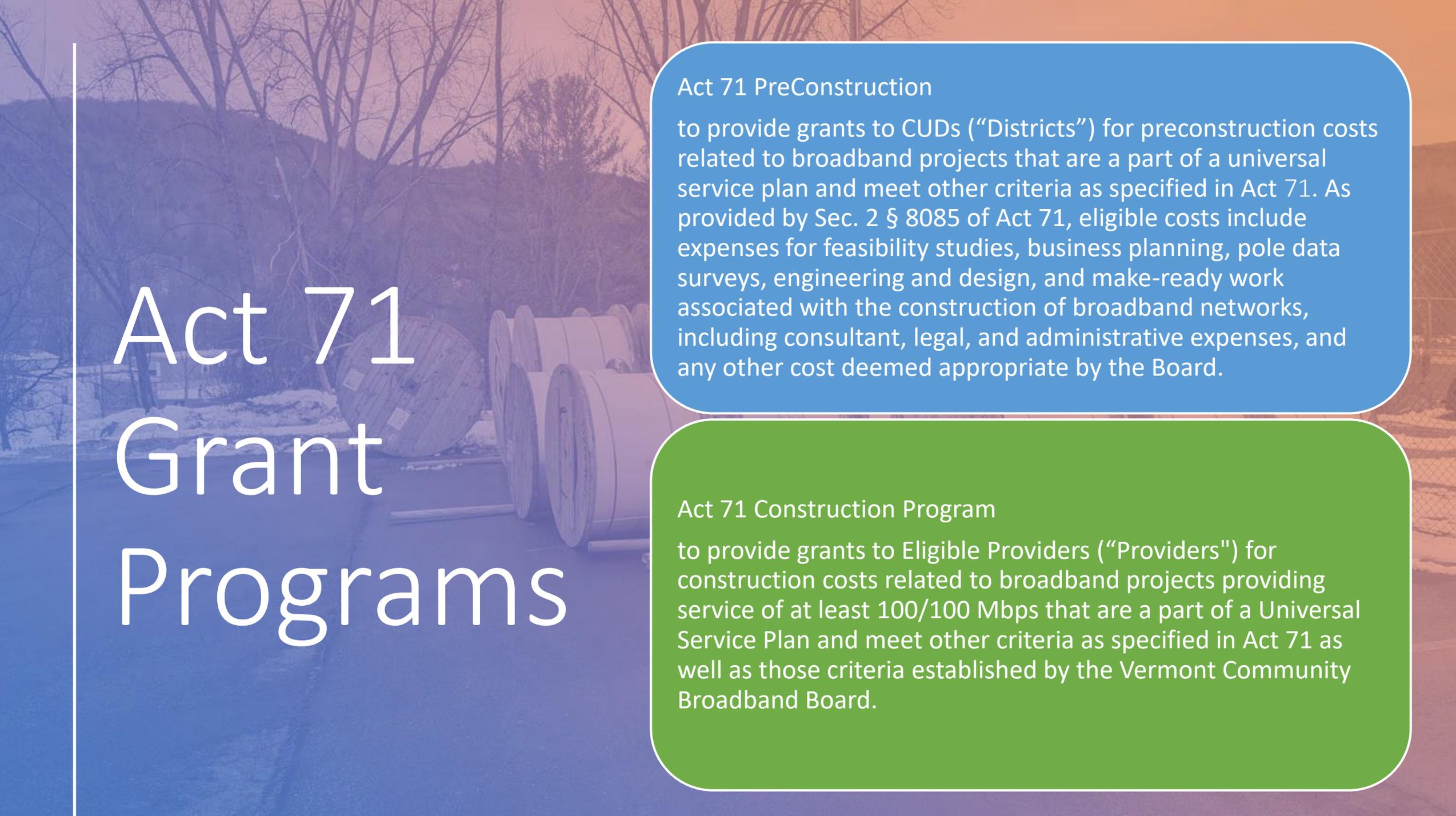
- 10 Districts
- 214 Member Towns
- 428 Volunteer Board Representatives & Alternates
- More than 76% the state's population
- 93% of premises statewide without access to 25/3
- 76% of all serviceable addresses

# Towns Without Communication Union District Membership

- ❑ Northern Borders Regional Commission (NBRC) grant to MCFiber for Fletcher
- ❑ Act 71 Construction Grant issued to build to remaining addresses in phased approach in WCVT towns.
- ❑ Towns served with fiber by Consolidated/Fidium or Vtel
- ❑ TDS planning on building fiber to 90%+ addresses. Other areas may be served by ECFiber in the future.
- ❑ VTel reports serving all addresses within its territory with fiber.
- ❑ SoVT will serve with fiber via partnership with Fidium for Glastonbury.

## Communications Union Districts





# Act 71 Grant Programs

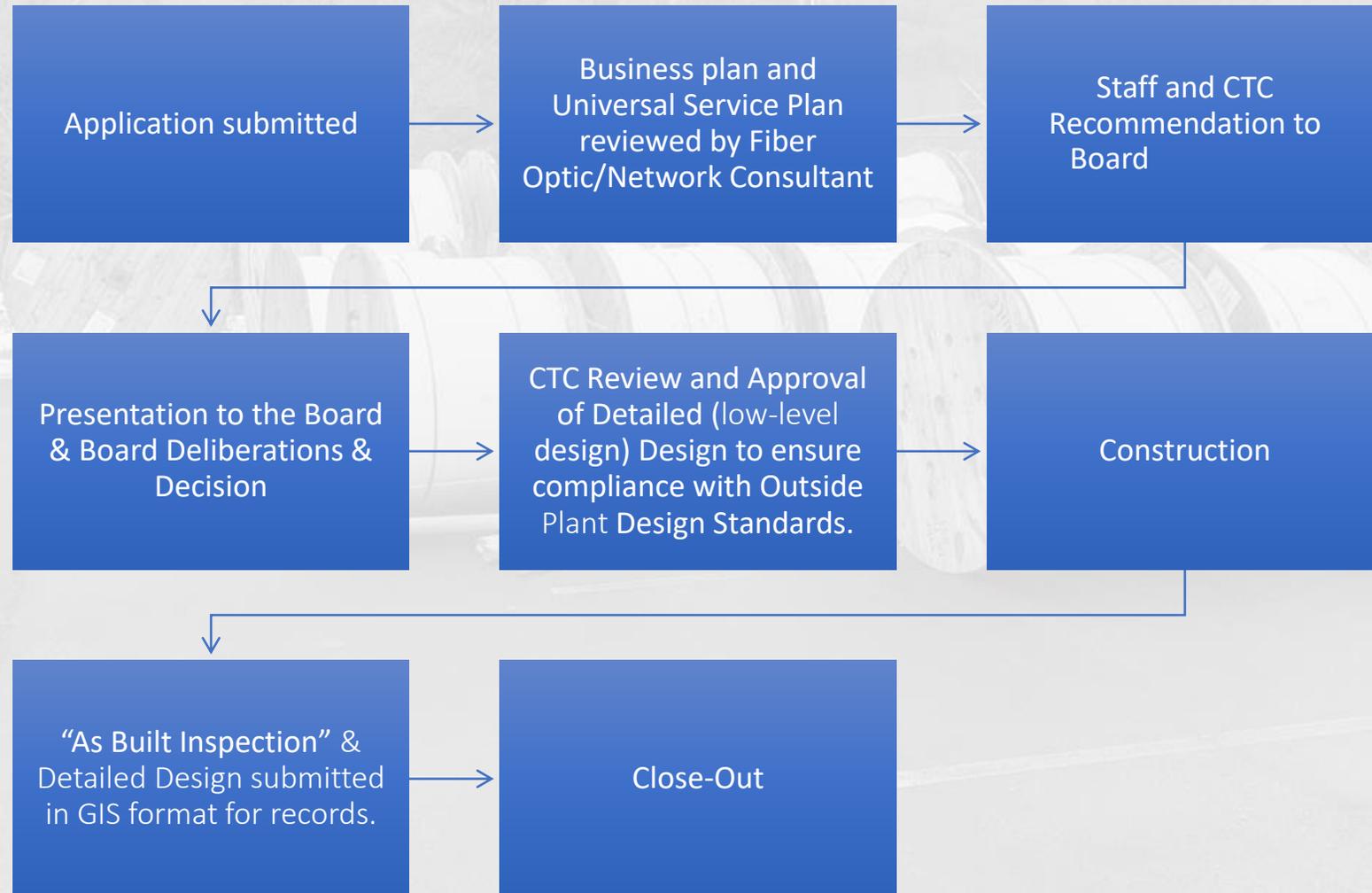
## Act 71 PreConstruction

to provide grants to CUDs (“Districts”) 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 cost deemed appropriate by the Board.

## Act 71 Construction Program

to provide grants to Eligible Providers (“Providers”) for construction costs related to broadband projects providing service of at least 100/100 Mbps that are a part of a Universal Service Plan and meet other criteria as specified in Act 71 as well as those criteria established by the Vermont Community Broadband Board.

# Construction Grant Process

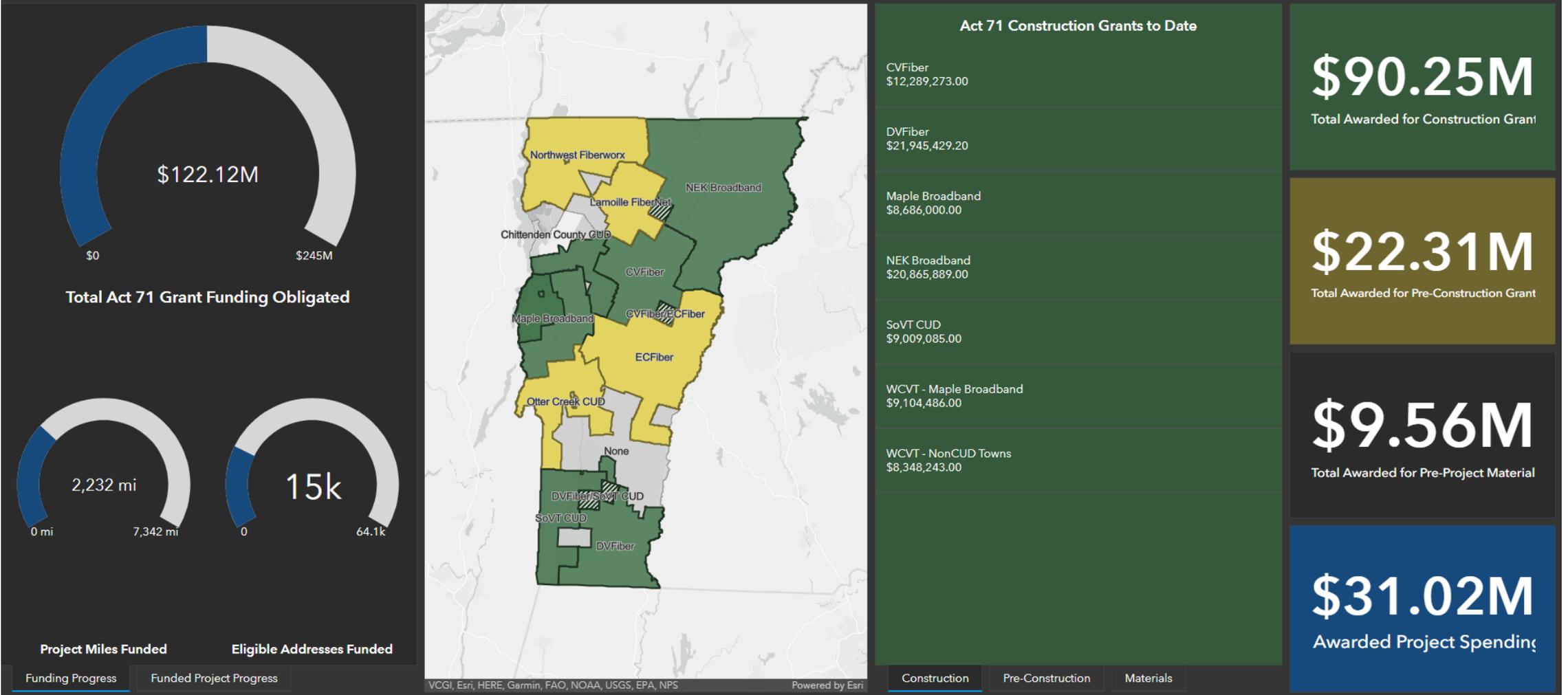




## Long-term Financial Sustainability

*Act 71 requires the VCBB to ensure that each CUD has a financially viable business plan prior to awarding a construction grant.*

- Staff, board members, and our contractor, CTC Engineering, review the CUD business plans and subject them to stress testing.
- NBRC funds were used to hire for the Broadband Project Manager to look beyond the implementation period of the grant awards to identify and unlock alternative financing mechanisms for the CUDs.



- \$150 Million in ARPA
- \$95 Million in ARPA Capital
- ~\$100 Million + Infrastructure Bill/BEAD

**A LOT OF \$\$ BUT.**

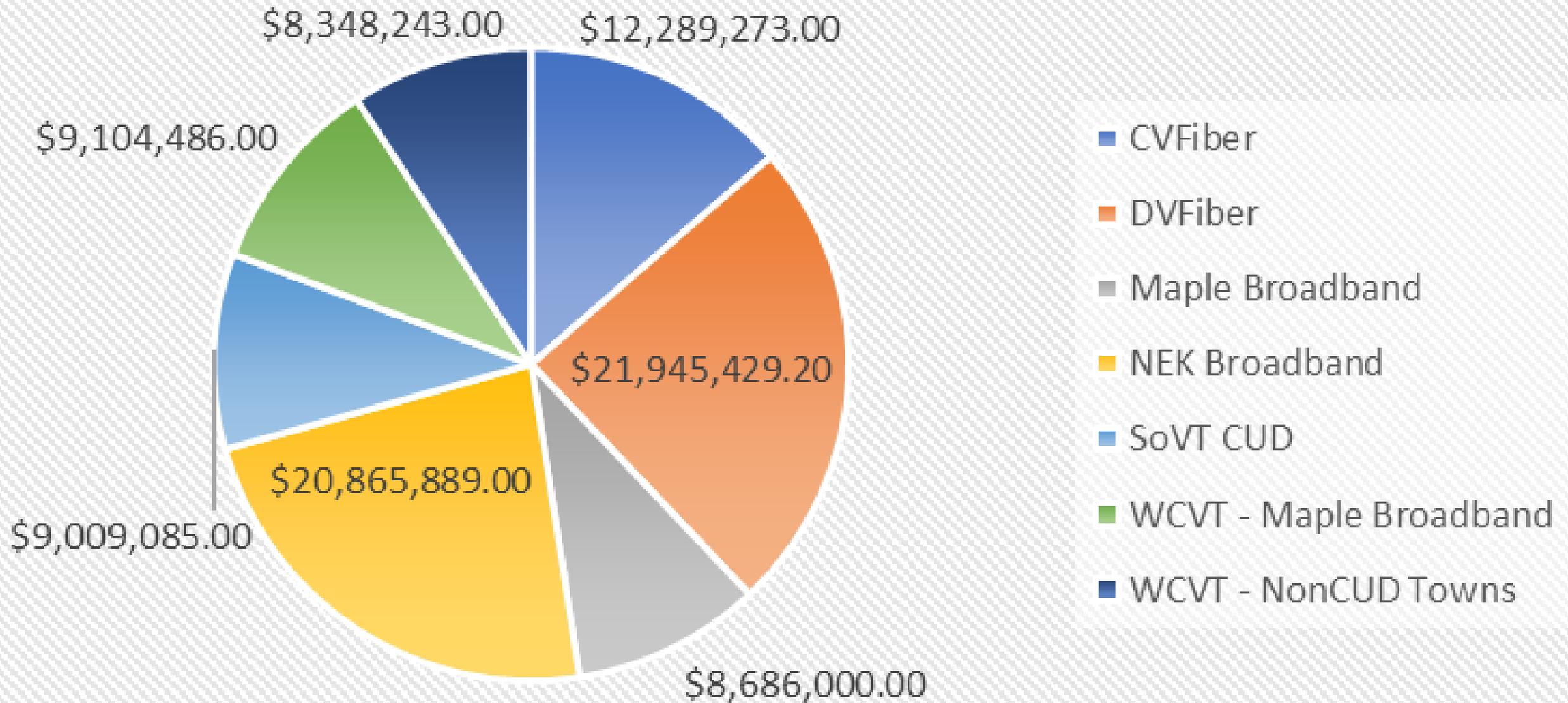
- Inflation
- Rising Interest Rates

- Material Shortages
- Workforce Challenges
- BEAD Delays

As of December 2022  
<https://vcbb.maps.arcgis.com/apps/dashboards/75eb5dd3e4454c18a31ef25d97b3d3da>

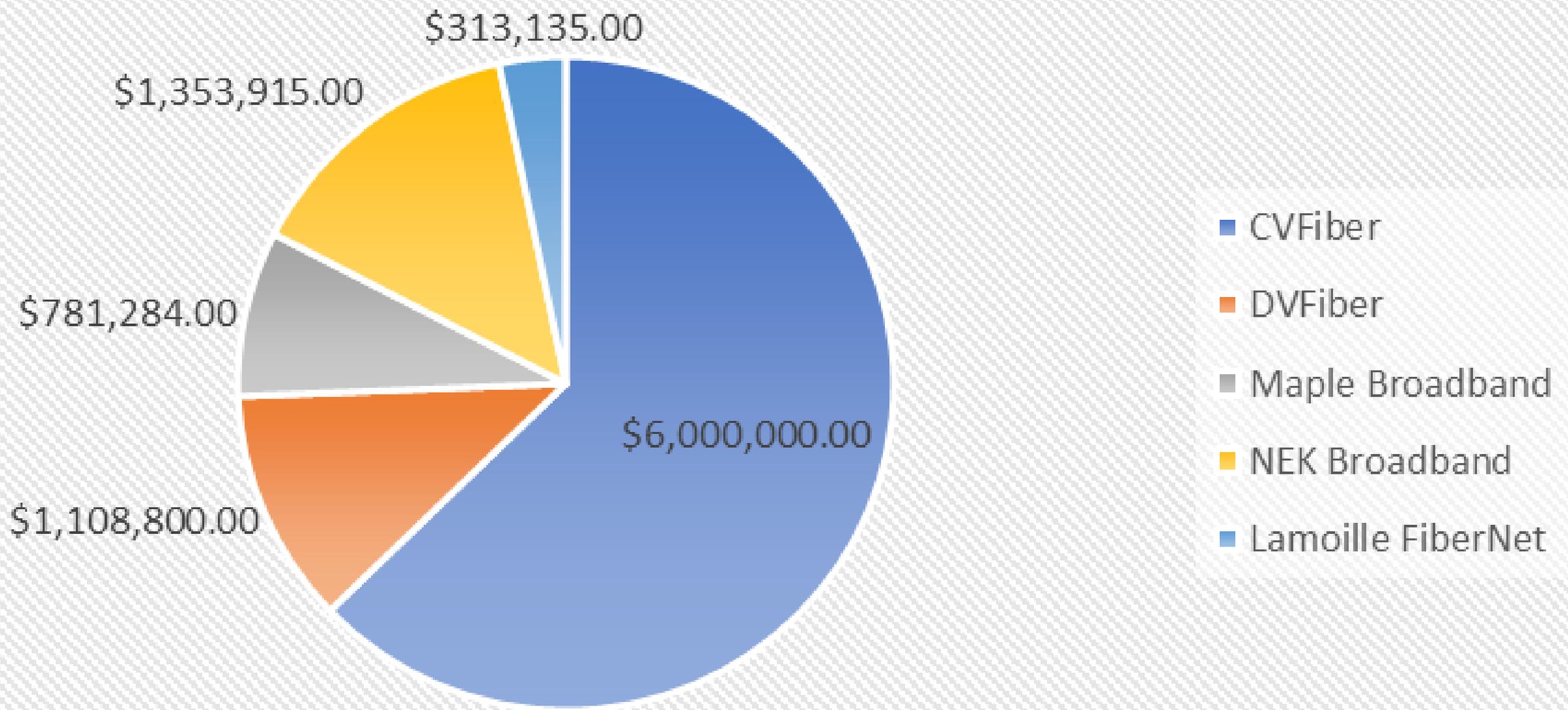
Board Approved: \$1.8M in new PreConstruction; and \$577k in Materials on 1/9/23

# Construction Grants





# Pre-Project Materials Funding





With billions of dollars being invested nationwide in fiber optic broadband networks, materials and labor will be two of the most important and difficult constraints to address.

## Key Constraints

- **Delays with Make-Ready**
- **Access to Capital**
- **Access to Materials**
- **Access to Labor**
- **FCC Maps & delays with BEAD**

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**Access to  
Capital/Materials  
- Creative Finance**

*Creative Finance involves adapting, improvising, and blending traditional financial products and concepts to unlock public and private capital thus increasing the prospect of delivering high-quality outcomes.*

# Examples of Mechanisms

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**Joint Fiber Purchase Backed by Letters of Credit** - Saved over \$2M and avoided supply chain disruptions.

**Leveraging Existing Programs** - By granting NEK Broadband \$400,000 they can access a VEDA Loan at a lower rate. The loan will be the matching funds for a \$24M USDA grant.

**Pay-it-Forward Workforce Development Programs**

**Climate financing and broadband infrastructure**

**Blended finance for digital equity in health**

**Environmental, social, and governance (ESG) bonds**

# Access to Capital - Matching Program

*Cornwall Select Board Chair Benjamin Marks said, "I am proud that Cornwall was able to take a leadership role in early ARPA fund allocation to Maple Broadband. The VCBB grant match doubles the good we were able to do with our initial grant and will be an important consideration for our future allocation of ARPA funds. Cornwall is underserved by the legacy DSL copper-wire currently in place. I firmly believe that fiber optic service at the highest speeds is necessary for us to function in a 21st century environment. The more Maple Broadband's build-out is funded outside of the debt markets, the lower the cost will be to Cornwall residents who need this vital service."*

The VCBB will match additional contributions from town ARPA up to \$100,000

The funds will be used during the IJA - BEAD program for match

Discuss with your CUD the best use of the funds

- Accelerating construction
- Paying for high-cost drops
- Cover additional areas of town
- Affordability

# To-Date: 40 Towns Have Committed \$2,485,622

## CVFiber Total Match To-Date: \$833,000

Calais	\$200,000
Moretown	\$50,000
Roxbury	\$20,000
East Montpelier	\$100,000
Waterbury	\$50,000
Woodbury	\$50,000
Washington	\$20,000
Cabot	\$50,000
Duxbury	\$20,000
Northfield	\$90,000
Middlesex	\$100,000
Worcester	\$53,000
Orange	\$30,000

## DVFiber Total Match To-Date: \$86,742

Marlboro	\$24,642
Jamaica	\$22,100
Halifax	\$40,000

## WCVT Total Match To-Date: \$243,830

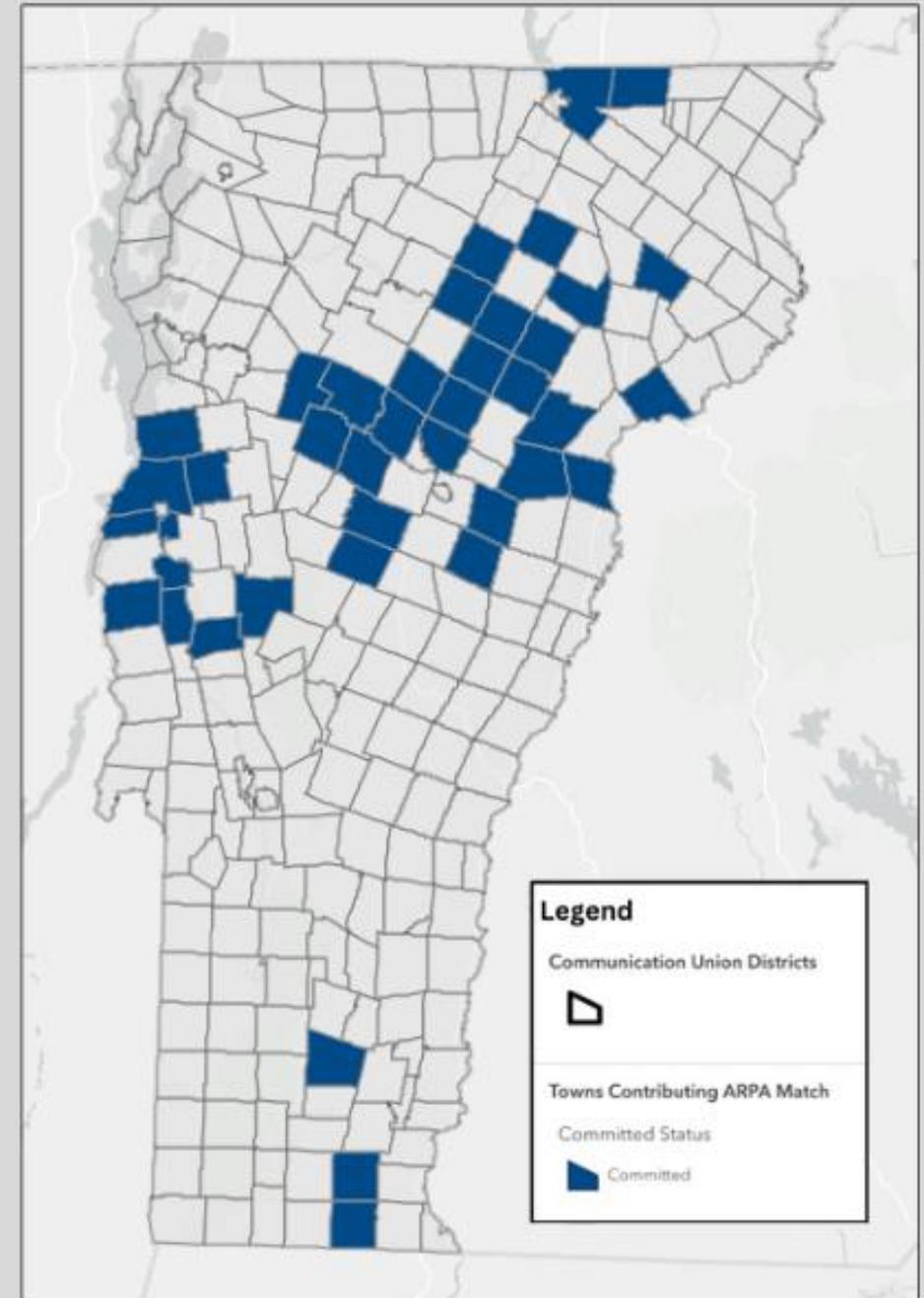
Bolton	\$200,000
Charlotte	\$43,830

## NEK Broadband Total Match To-Date: \$942,050

Peacham	\$30,000
Groton	\$40,800
Rygate	\$76,000
Walden	\$40,000
Hardwick	\$139,800
Derby	\$72,417
Waterford	\$110,883
Wheelock	\$40,900
Holland	\$123,833
Craftsbury	\$116,733
Wolcott	\$52,917
Glover	\$41,267
Burke	\$56,500

## Maple Broadband Total Match To-Date: \$380,000

Bridport	\$40,000
Cornwall	\$50,000
Ferrisburgh	\$50,000
Monkton	\$50,000
Panton	\$50,000
Ripton	\$25,000
Salisbury	\$30,000
Waltham	\$45,000
Weybridge	\$40,000



**Legend**

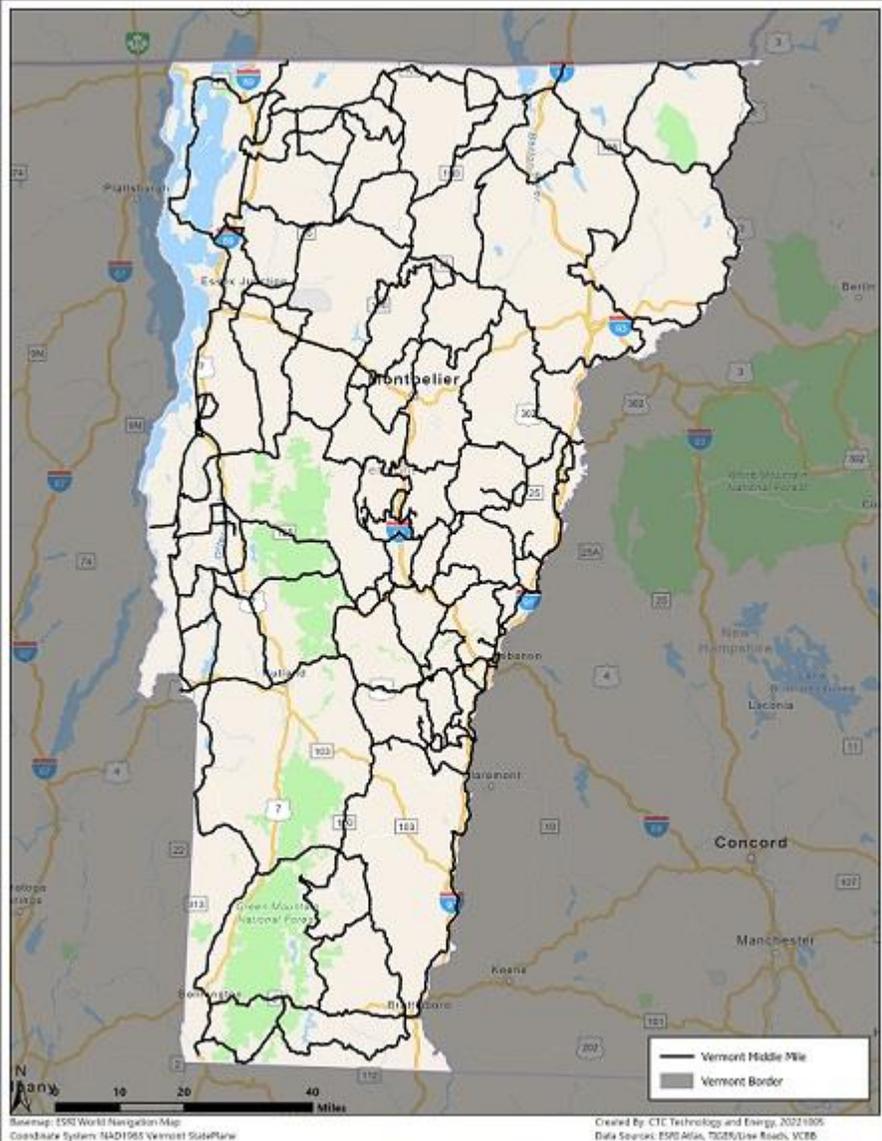
Communication Union Districts

Towns Contributing ARPA Match

Committed Status

Committed

# Middle Mile Application



- Proposes \$114 Million Fiber-Optic Middle Mile Network.
- 1,663 miles total (1,107 new miles, leverages previous state fiber, and IRUs).
- Public control via a Special Purpose Vehicle.
- Increases resiliency and redundancy of all networks.
- Addresses public safety concerns around remote host isolation.
- Accelerates deployment of last mile and reduces end cost to consumer.
- Developed via discussions with CUDS and Private Telecoms.

## Match:

- \$30M General Fund included in the SFY23 Budget Adjustment Act.
- \$16M in-kind using existing public and private assets.

*For illustrative purposes only*

# Workforce Development Plan

Build-out requires the construction of 8,000 miles of fiber over a 5-year period and will require:

- 200 fiber optic technicians
- Tree-trimmers
- Electric utility line workers
  - Apprenticeship programs
  - Tuition assistance
  - Job placement
  - Earn-to-learn program
  - Centralized resource for sourcing workers
  - Collaboration between VCBB, Vermont Department of Labor, the Vermont Agency of Commerce and Community Development, CUDs, the Vermont Technical College, Vermont State Colleges, and industry leaders.



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# Additional Funding

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# Universal Services Funding



The Vermont Universal Service Fund (VUSF) was established by Vermont law in 1994 through the enactment of 30 V.S.A. § 7501 for the purpose of creating a financial structure that will allow every Vermont household to obtain basic telecommunications service at an affordable price, and to finance that structure with a proportional charge on all telecommunications transactions that interact with the public switched network.



The Vermont USF statute provides for the imposition of a universal service surcharge on all retail telecommunications service provided to a Vermont address.

All telecommunications providers must bill their customers for the VUSF charge, and deposit the funds collected through the surcharge in the VUSF fund.

# Infrastructure, Investment and Jobs Act Funding



Broadband, Equity and Deployment (BEAD) – Awarded  
Funding to identify Vermont’s broadband access, affordability, equity, and adoption needs.



Digital Equity Planning and Implementation Grant- Awarded  
*Funding to develop the State’s digital equity plan.*



Vermont's Middle Mile Grant -National Telecommunications and  
Information Administration (NTIA) - Submitted  
Funding to reduce the cost of connecting areas that are unserved or underserved to the internet  
backbone as well as create a state-wide redundant fiber network .

# FCC Map Challenge

As part of the FCC's Broadband Data Collection, internet service providers report where they make internet services available. The FCC reviews the data and then publishes it on the **National Broadband Map**. Individuals or States can dispute, or challenge, information shown on the map. Vermont used the Public Service Department (PSD) drive data to submit bulk challenges. A public relations campaign was launched to encourage Vermonters to make individual challenges.

- **Locations** - 11% of the locations in the FCC Map do not match Vermont data. An additional 22% of addresses in the Vermont database do not appear in the federal map.
- **Availability** - Up to 20,000 addresses may be identified inaccurately.
- **Funding** - Each address that is corrected could mean \$4,000-\$5,000 in additional federal funding.



# Northern Borders Regional Commission (NBRC)

## Funds will be used to Increase Capacity to:

- Expand broadband across the State of Vermont
- Enable regional Communications Union Districts (CUDs) to successfully leverage additional funding
- Build out service to thousands of currently unserved Vermonters
- Build capacity and oversight capabilities of the CUDs with the goal of finding efficiencies and promoting sustainability.



***With billions of dollars being invested nationwide in fiber optic broadband networks, materials and labor will be two of the most important and difficult constraints to address.***

**Delays with Make-Ready**

**Access to Capital**

**Access to Materials**

**Access to Labor**

**FCC Maps & Delays with BEAD Funding**

# Vermont Community Broadband Board

- *Questions?*

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Communications Union Districts  
Contact info:  
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