

NEK Broadband Action Plan

Produced by the Northeast Kingdom Collaborative in partnership with the NEK Broadband Working Group.

The Need

BROADBAND DEFINITION

The Federal Communications Commission defines broadband as 25/3 (25 Megabits per second download speed/3 Megabits per second upload speed).

WHY BROADBAND MATTERS

There was a time when access to the internet was a luxury and even a novelty. Those days are long gone. Today, fast, reliable and affordable internet is as much a necessity as electricity.

Our small businesses need broadband internet to connect efficiently with suppliers and customers. Students require it for effective studying. Towns know it is necessary for keeping the next generation engaged and for attracting new residents, particularly telecommuters, who will help keep their communities vibrant.

And we know that seamless high-speed internet is going to become even more important. Trends suggest that it will become a required part of how we receive health care, government services and power and heat our homes.

Unfortunately, the promise of modern communications has bypassed many rural communities in Vermont.

We must do more to ensure that all Vermonters have access essential resource.

WHY IS IT SO HARD?

We are a rural state and connecting all Vermonters is hard for a number of reasons:

Regulation

There is a light touch to regulation. Unlike traditional basic telephone service, internet and cable companies are not required to serve every customer. Pole owners are required to complete make ready work in a timely fashion, but deadlines are regularly missed with no consequences.

Return on Investment

Aerial fiber buildout costs roughly \$15-\$20k/mile. Private investment models are focused on return on investment. For many private companies its seen as too expensive to bring equipment and service over long distances to so few people leaving our rural communities underserved.

Geography

The Vermont geography works against us. Wireless technologies are often the best solution in other rural areas, but Vermont's mountainous geography makes this challenging.

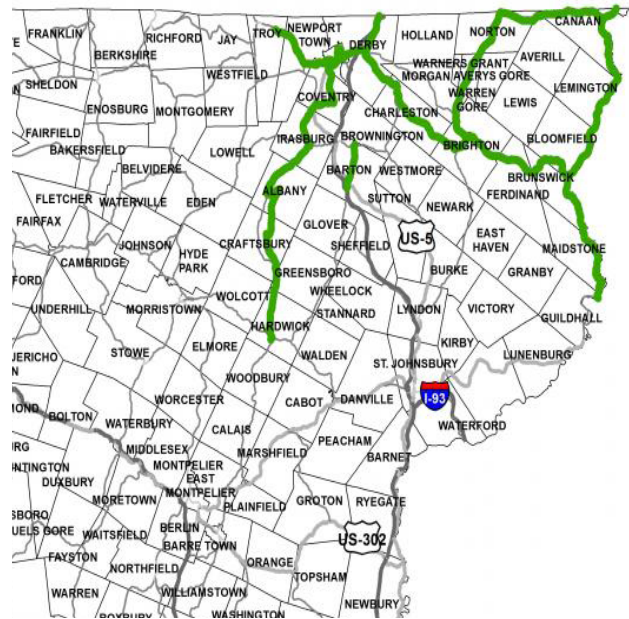
Connectivity in the Northeast Kingdom

The Northeast Kingdom is lagging farther and farther behind in providing truly high-speed broadband for businesses, residents and visitors, even compared to the other rural parts of Vermont.

- » 16 out of the 20 most underserved towns in Vermont are in the NEK
- » 20% of the addresses in the region can't even purchase the most basic internet service
- » 3/4 of the state has access to 25/3 but less than half of the addresses in the NEK have access to that speed.

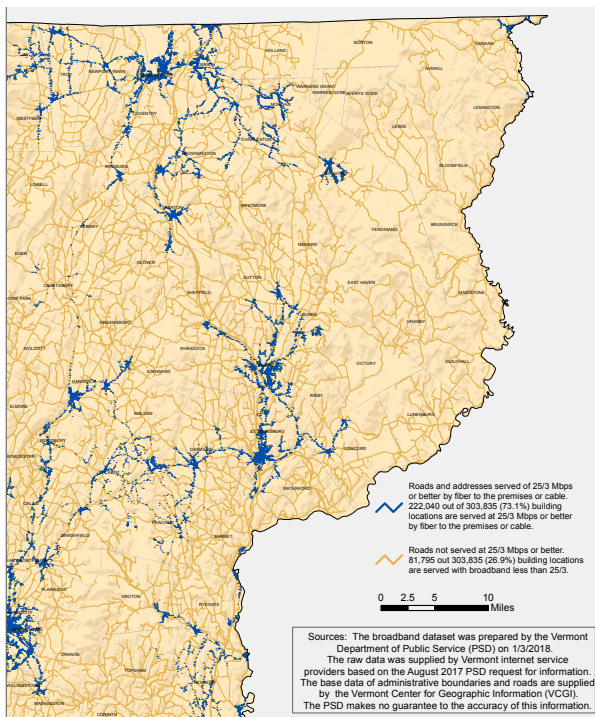
The Vermont Telecommunications Plan estimates that it will cost \$500 million to \$1.4 billion to bring fiber-optic internet all around Vermont.

STATE FIBER NETWORK

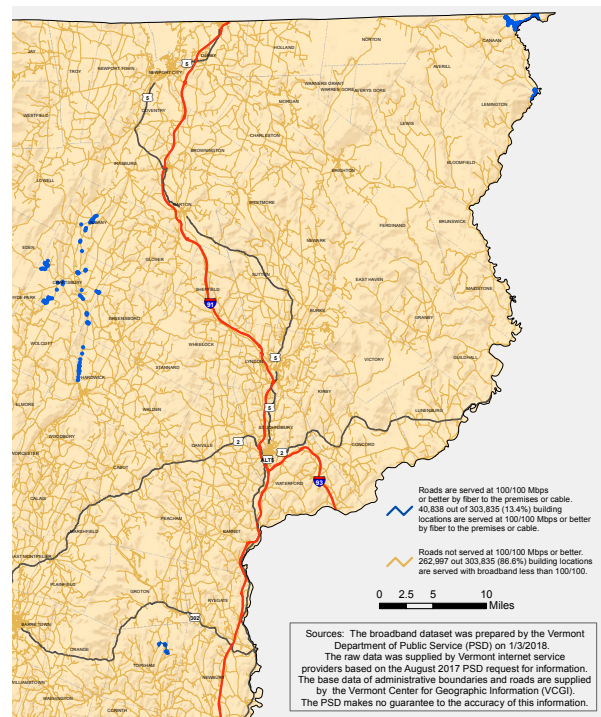


There is middle-mile fiber network through the region. It is not designed for providing broadband internet directly to the home, but can serve as the backbone for that service.

Addresses Served by 25/3 mbps



Addresses served by 100/100 mbps





NEK Broadband 2025

THE GOAL

Every E911 business and residential address in the NEK has access to a minimum speed of 100 Mbps, symmetrical at an affordable price by 2025.

This goal is set forth with the expectation that there may be interim technology put into place while a fiber to the premises network is built.

STRATEGY

Build community capacity and accelerate implementation of community broadband infrastructure projects by providing technical assistance and financial resources to communities.

TIMELINE

Secure Funding	Summer 2019
Form town broadband committees	Ongoing
Conduct resident surveys	Ongoing
Committee outreach and education	Ongoing
Hire consultant for legal & financial planning for CUDs	Fall 2019
Selectboard presentations about CUDs - Round 1	Fall 2019
CUD ballot measure added to warning	January 2020
Public outreach & awareness building about Town Meeting Day Vote	February 2020
Town Meeting Day vote to join CUD	March 2020
Selectboards appoint CUD board member	April 2020
Produce NEK network feasibility plan, priorities and timeline	May 2020
Secure funding from loans, bonds, and grants	Ongoing
Presentations to additional selectboards	Ongoing
Vote additional towns into CUDs	Ongoing



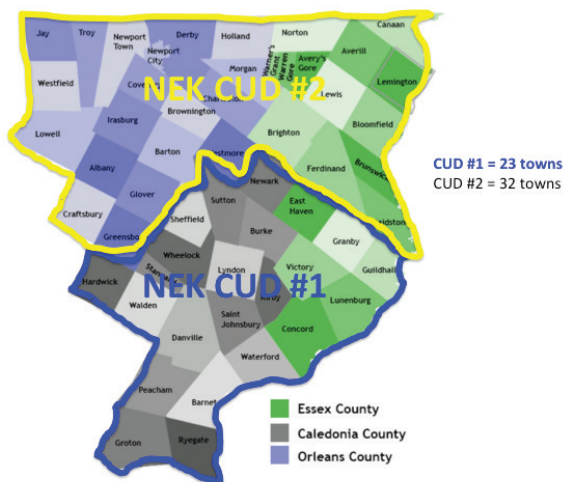
WHAT IS A COMMUNICATIONS UNION DISTRICT?

Most of the substantial leaps in service in recent years across the state have come from communities banding together or partnering with providers to build their own fiber networks or wireless towers, a process that requires years of focus.

A Communications Union District (CUD) is:

- » A municipal entity, made up of 2 or more towns
- » Can bond and raise revenue to design, build, and operate a network
- » Allows towns to work together to develop solutions
- » No financial risk to taxpayer or municipality
- » Town vote during town meeting or special meeting to join CUD
- » Managed by board of directors with a resident and an alternate from each town in the CUD

DRAFT CUD MAP FOR THE REGION



Join us

NEK BROADBAND WORKING GROUP

A group was formed in 2019 to develop, support, and monitor progress on the NEK broadband goal. The volunteer group is made up of municipal leaders, business owners, nonprofit partners, and others interested in increasing connectivity in the region. The working group is open to all.

See appendix for list of current members.

If you're interested in joining the NEK Broadband Working Group, please reach out to Katherine@nekcollaborative.org or 802-586-0099.

BROADBAND EMAIL LIST

If you want to be part of the conversation at the regional level, get in touch with the Northeast Kingdom Collaborative at broadband@nekcollaborative.org or sign up online at NekCollaborative.org

Appendix

BROADBAND TOOLKITS

- » [Meeting Summary](#) from the Northern Vermont Connectivity Summit, December 5, 2018
- » [Materials Presented](#) at the Southern Vermont Connectivity Summit, November 30, 2018
- » [NTIA Broadband Toolkit](#)
- » [USDA E-Connectivity Toolkit](#)

FUNDING OPPORTUNITIES

The NTIA released a [searchable database](#) of 50 federal broadband programs representing billions of dollars for broadband grants, loans, and other resources. The guide is intended to aid community leaders in finding federal broadband funding and permitting information.

A few key funding opportunities include:

- » United States Department of Agriculture (USDA): Community Connect Grants, Distance Learning and Telemedicine Grants, Rural Broadband Access Loan and Loan Guarantee, Telecommunications Infrastructure Loans and Guarantees
- » Northern Border Regional Commission
- » United States Department of Commerce, Economic Development Administration (EDA): Various programs
- » United States Department of Housing and Urban Development (HUD): Community Development Block Grant
- » United States Department of Energy: Clean Renewable Energy Bonds
- » Vermont Department of Public Service: Connectivity Initiative

NEK BROADBAND WORKING GROUP MEMBERS:

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