

BEAD Program: A Framework to Allocate Funding for Broadband Availability

State Broadband Report: Vermont

January 2024





1 Eligible Locations

How many unserved/underserved locations are eligible for BEAD funding?

21%

61K LOCATIONS

OF VERMONT LOCATIONS LACK HIGH-SPEED BROADBAND IN JUN 2023

VS. 9% STATE/TERRITORY AVERAGE

UNSERVED LOCATIONS, JUN. 2024



18.0K
LOCATIONS

Are estimated to lack broadband access at **25/3 Mbps**

UNDERSERVED LOCATIONS, JUN. 2024



19.7K
LOCATIONS

Are estimated to lack broadband access at **100/20 Mbps**

These locations are primarily in rural areas and are eligible for BEAD funding to deploy broadband service.

2 Total Funding

How much capital funding is the State/Territory estimated to have?

\$229M

IN BEAD FUNDING HAS BEEN ALLOCATED TO VERMONT VS. \$743M STATE/TERRITORY AVERAGE

ESTIMATED BEAD FUNDING:

BEAD Funds allocated by NTIA

\$229M

Estimated Provider Match

\$113M

Estimated Total Capital

\$342M

The provider match is estimated using a high-level service provider business case. See national summary deck for full details.

3 Deployment

How many locations can be covered with fiber and other technologies?

**\$171M-
\$204M**

OF BEAD FUNDS IS REQUIRED TO BUILD HIGH-SPEED BROADBAND TO ALL ELIGIBLE LOCATIONS

DEPLOYMENT SCENARIOS:



Baseline Fiber



Maximum Fiber

100%
LOCATIONS REACHED

92%
FIBER LOCATIONS

100%
LOCATIONS REACHED

100%
FIBER LOCATIONS

\$284M

TOTAL CAPITAL COST

\$317M

TOTAL CAPITAL COST

\$58M

REMAINING BUDGET

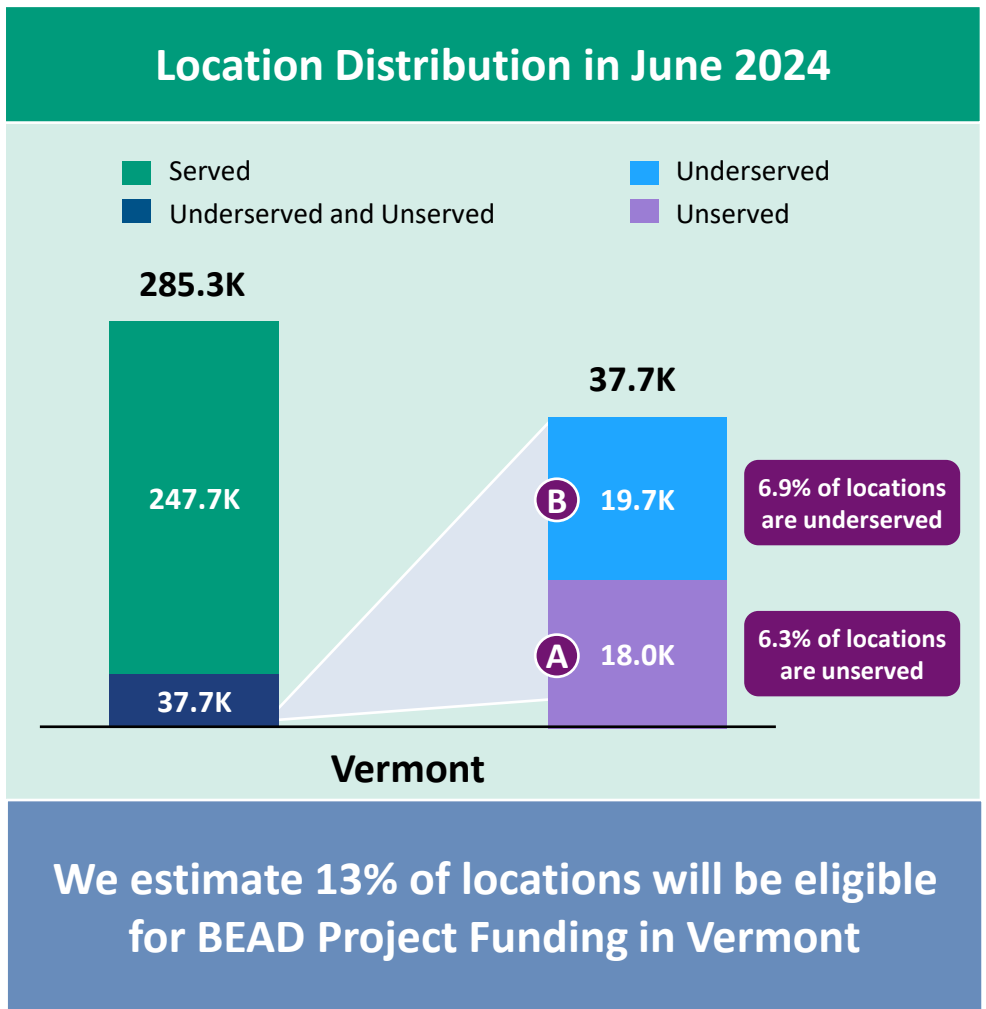
\$25M

REMAINING BUDGET

1 Estimate Eligible Locations

Vermont | Estimated Eligible Locations for BEAD Projects

June 2023 FCC Broadband Locations	Unserved <i>(less than 25Mbps/3Mbps)</i>	Underserved <i>(less than 100Mbps/20Mbps)</i>
	30.8K	30.5K
– Subsidy Program Funded Locations ¹	10.1K	10.8K
– Incremental Build ² (13% annual build, for 12 months)	2.7K	--
= Jun. 2024 Estimated Eligible Locations	18.0K (A)	19.7K (B)



1. Locations with "commitments" to receive support from federal subsidy programs
 2. Given the uncertainty around the magnitude of locations moving from unserved to underserved, we have not made incremental builds adjustments to underserved locations
 BEAD eligible locations does not account for state-specific eligibility rules set forth in Initial Proposals
 Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023)
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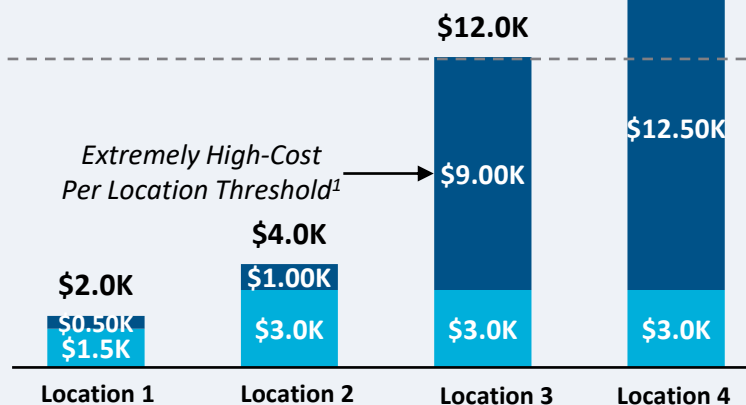
Vermont | BEAD Funding & Estimated Provider Match

Provider Match Examples

Total Deployment Cost per Location

- BEAD Funds Per Location
- Estimated Provider Match

High-Cost
Areas
\$15.5K

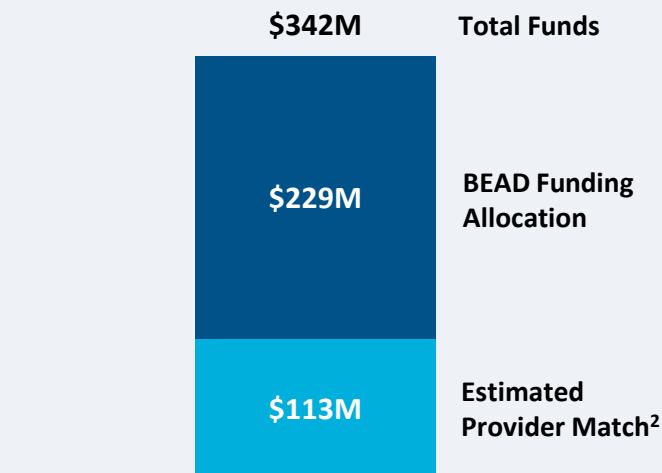


Provider Match %

75%	75%	25%	19%
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To be conservative, we assume provider match amounts have a maximum of 75% and a minimum of 25%, except in high-cost areas

Total Capital Available - Vermont



\$342M in total capital is estimated to be available to serve unserved/underserved Vermont locations (combining BEAD funding and estimated provider match)

Provider Match - Vermont

Total Estimated
Provider Match: **\$113M**

Total Estimated
Eligible Locations: **37.7K**

Average
Provider Match: **\$2,995**
PER LOCATION

We estimate the average provider match will be \$2,995 – provider matches will be 75% where cost to deploy is less than \$4K

1. The model uses a \$9k threshold, however, States/Territories will individually need to determine their appropriate extremely high-cost threshold

2. In reality, providers will determine the viable level of match funding for each project using a business case model. They will be willing to contribute a greater match in some locations and less in others. Locations which are hardest to serve may need to be fully funded by BEAD with no match. Competitive bidding should drive provider matches towards this level.

Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023), Benton, NTIA

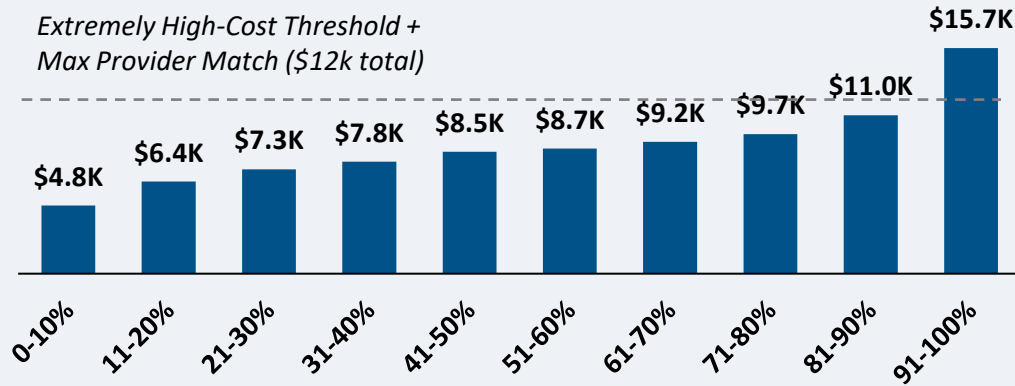
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Vermont | Cost to Deploy Fiber by Decile

CAPEX Fiber Deployment Cost per Location Segmented by Cost Deciles¹

Unserved Locations

Overall Average Cost per Location: \$9,009

Extremely High-Cost Threshold +
Max Provider Match (\$12k total)

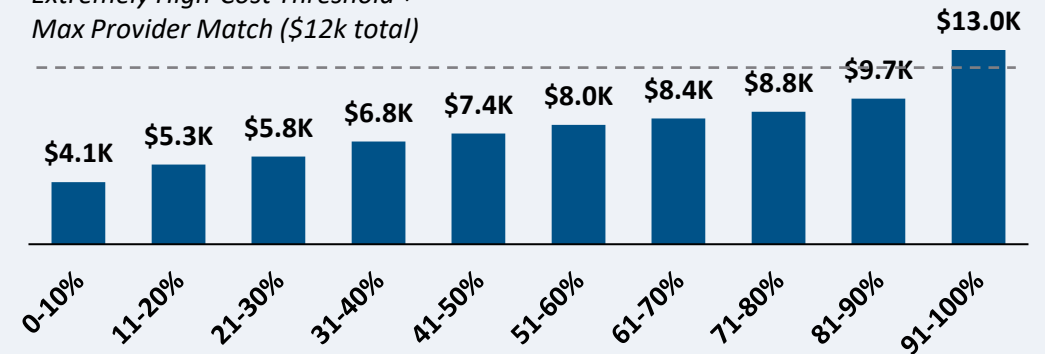
Average Tract Density (Location per sq. Mile)

8	5	9	5	5	5	6	4	5	4
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18.0K Locations

Underserved Locations

Overall Average Cost per Location: \$7,891

Extremely High-Cost Threshold +
Max Provider Match (\$12k total)

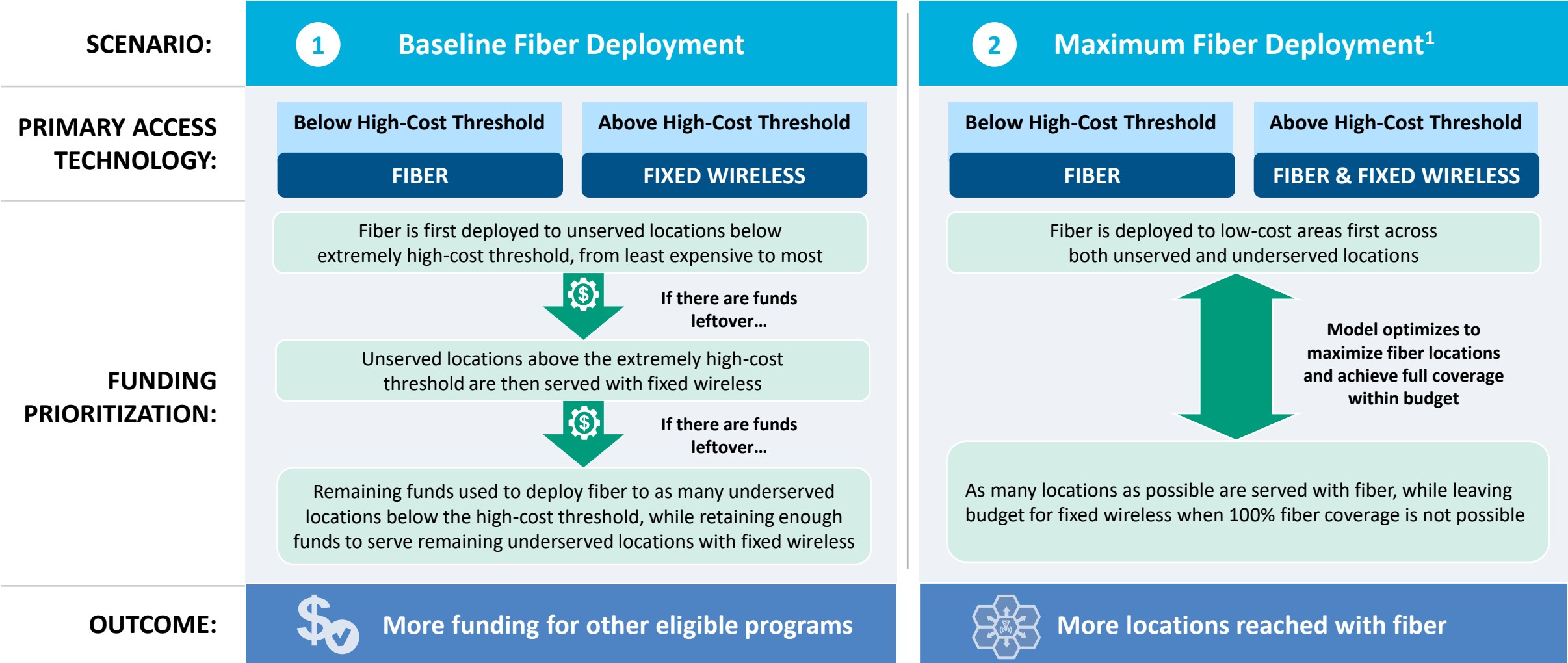
Average Tract Density (Location per sq. Mile)

5	11	10	6	4	7	6	5	4	7
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19.7K Locations

Over 90% of locations are estimated to fall below the High-Cost Threshold + Provider Match

Vermont | Fiber Preferencing Scenarios



1. Scenario 2 deploys fiber beyond the extremely high-cost threshold
 Source: Cartesian
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3 Develop Deployment Scenarios

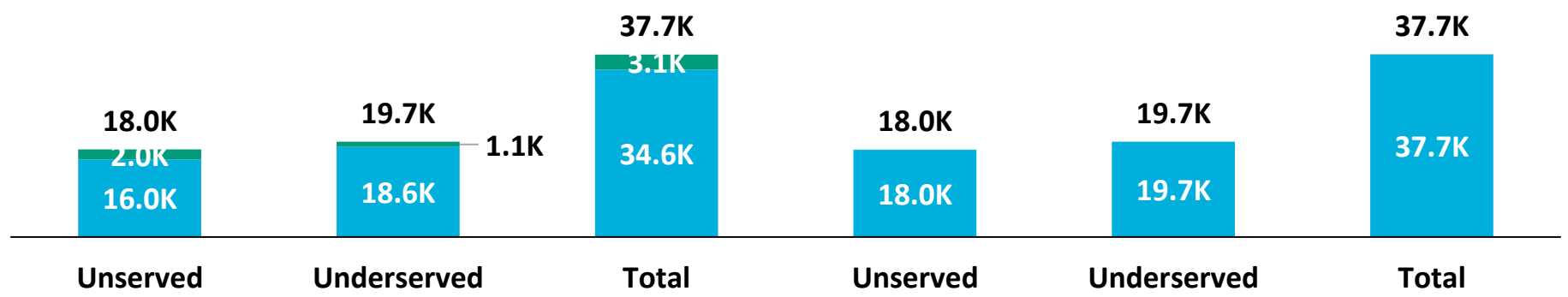
Vermont | Scenario Analysis Results

SCENARIO:

1 Baseline Fiber Deployment

2 Maximum Fiber Deployment

■ Fixed Wireless
■ Fiber



	Scenario 1	Scenario 2
Capex Required per Locations ¹	\$7,802	\$8,419
BEAD Funds Available to State	\$229M	\$229M
+ Estimated Provider Match	\$113M	\$113M
= Total Available Capital	\$342M	\$342M
- Capex Required to Build	\$284M	\$317M
= Remaining Funds	\$58M	\$25M
% of Locations Reached	100%	100%
% of Locations Reached with Fiber	92%	100%

1. Funding to deploy fiber before the maximum \$3k provider match per location
 Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023), Benton, NTIA
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Vermont | Conclusion



Funding Summary

Vermont is expected to receive

\$229M in BEAD funding



\$113M in estimated provider matching

We estimate the funding is sufficient to reach all of Vermont's 37.7k eligible locations with high-speed broadband



Key Findings

Vermont appears well positioned to reach all eligible premises and have funding for other BEAD eligible programs

A Baseline Fiber Deployment...



Maximizing Fiber...

- Leaves \$58M additional funds for affordability programs
- Reaches 92% of locations with fiber
- Requires 8% to be reached with other tech.

- Leaves \$25M additional funds for affordability programs
- Reaches 100% of locations with fiber
- Requires 0% to be reached with other tech.

States/Territories will set their own extremely high-cost threshold and may choose a threshold or funding paradigm different from these two scenarios

Vermont | ACA Connects Members

Member Name
Citizens Cablevision, Inc.
Consolidated Communications, Inc.
Schurz Communications, Inc.
Stowe Cable Holdings, LLC
TDS Telecom
Vermont Telephone Company, Inc.
Waitsfield Cable



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