

# BEAD Program: A Framework to Allocate Funding for Broadband Availability

## State Broadband Report: Tennessee

January 2024





## 1 Eligible Locations

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

**7%**  
196K LOCATIONS  
OF TENNESSEE LOCATIONS LACK HIGH-SPEED BROADBAND IN JUN 2023  
VS. 9% STATE/TERRITORY AVERAGE

### UNSERVED LOCATIONS, JUN. 2024



**78.4K**  
LOCATIONS

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

### UNDERSERVED LOCATIONS, JUN. 2024



**30.0K**  
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?*

**\$813M**  
IN BEAD FUNDING HAS BEEN ALLOCATED TO TENNESSEE  
VS. \$743M STATE/TERRITORY AVERAGE

### ESTIMATED BEAD FUNDING:

BEAD Funds allocated by NTIA

**\$813M**

Estimated Provider Match

**\$305M**

Estimated Total Capital

**\$1.1B**

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?*

**\$318M-\$362M**  
OF BEAD FUNDS IS REQUIRED TO BUILD HIGH-SPEED BROADBAND TO ALL ELIGIBLE LOCATIONS

### DEPLOYMENT SCENARIOS:



Baseline Fiber



Maximum Fiber

**100%**  
LOCATIONS REACHED

**97%**  
FIBER LOCATIONS

**100%**  
LOCATIONS REACHED

**100%**  
FIBER LOCATIONS

**\$623M**  
TOTAL CAPITAL COST

**\$667M**  
TOTAL CAPITAL COST

**\$496M**  
REMAINING BUDGET

**\$451M**  
REMAINING BUDGET

**1** Estimate Eligible Locations

# Tennessee | 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>
Subsidy Program Funded Locations <sup>1</sup>	61.7K	14.6K
Incremental Build <sup>2</sup> <i>(13% annual build, for 12 months)</i>	11.7K	--
<b>Jun. 2024 Estimated Eligible Locations</b>	<b>78.4K (A)</b>	<b>30.0K (B)</b>

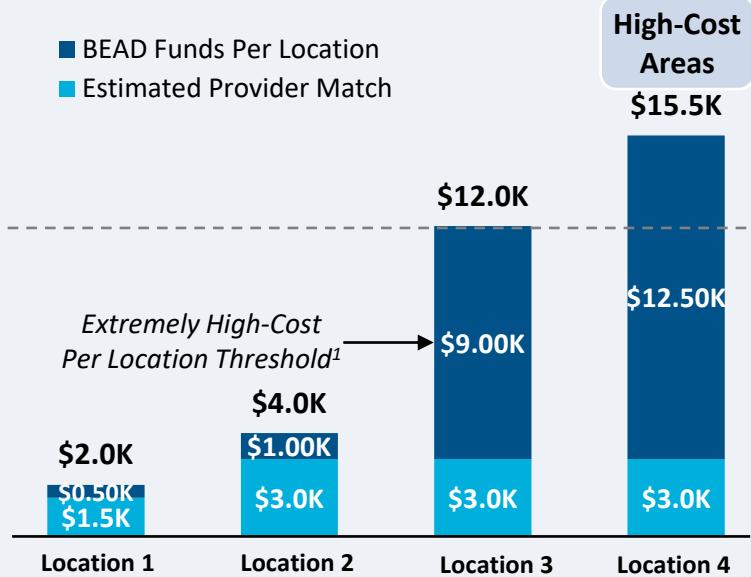


1. Locations with "commitments" to receive support from federal subsidy programs  
 2. Given the uncertainty around the magnitude of locations moving from unserved to underserved, we have not made incremental builds adjustments to underserved locations  
 BEAD eligible locations does not account for 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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## Provider Match Examples

## Total Deployment Cost per Location

- BEAD Funds Per Location
- Estimated Provider Match

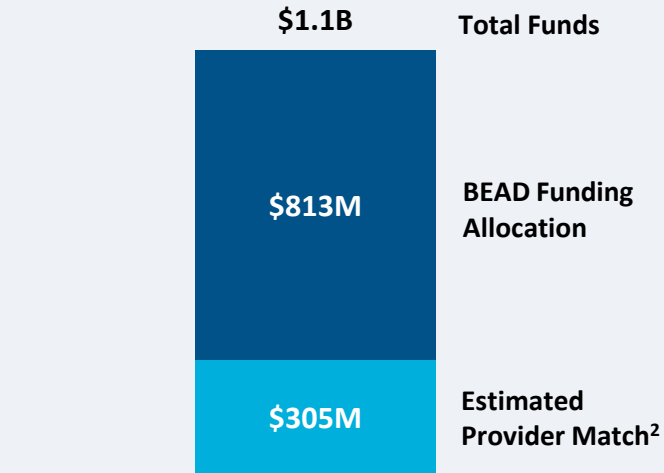


## Provider Match %

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 - Tennessee



\$1.1B in total capital is estimated to be available to serve unserved/underserved Tennessee locations (combining BEAD funding and estimated provider match)

## Provider Match - Tennessee

Total Estimated  
Provider Match:

\$305M

Total Estimated  
Eligible Locations:

108.4K

Average  
Provider Match:

\$2,813  
PER LOCATION

We estimate the average provider match will be \$2,813 – 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

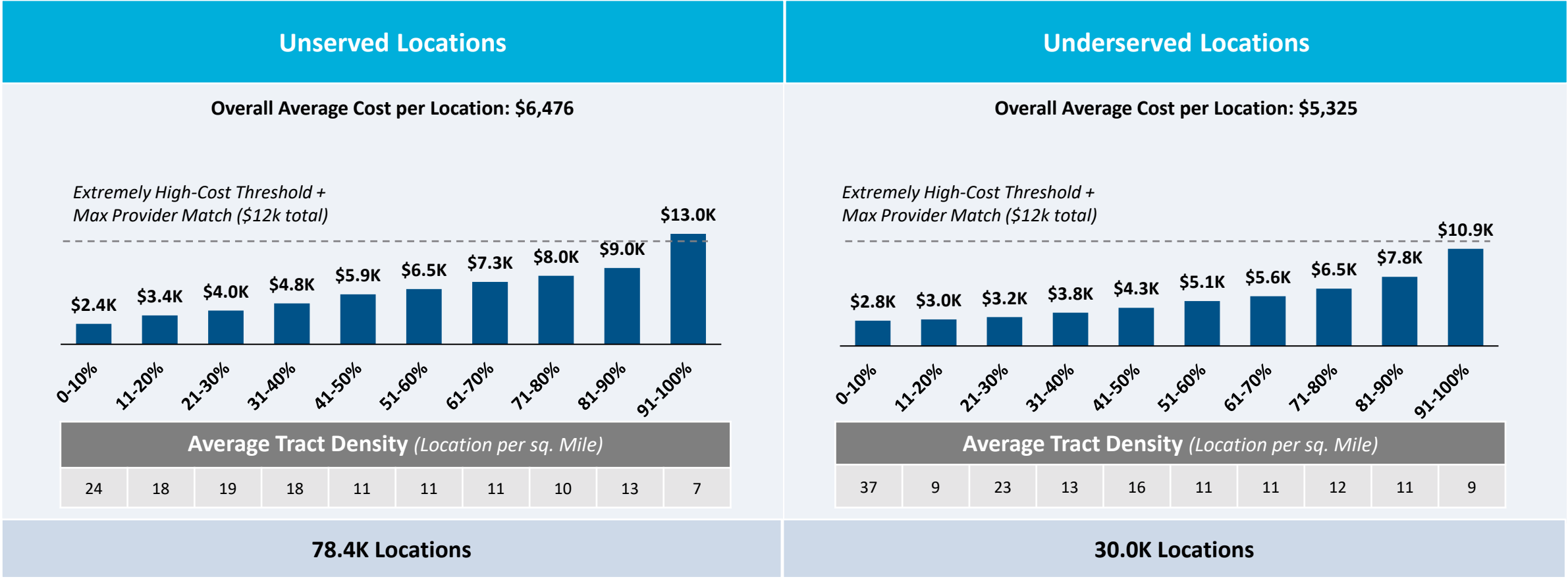
2. In reality, providers will determine the viable level of match funding for each project using a business case model. They will be willing to contribute a greater match in some locations and less in others. Locations which are hardest to serve may need to be fully funded by BEAD with no match. Competitive 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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# Tennessee | Cost to Deploy Fiber by Decile

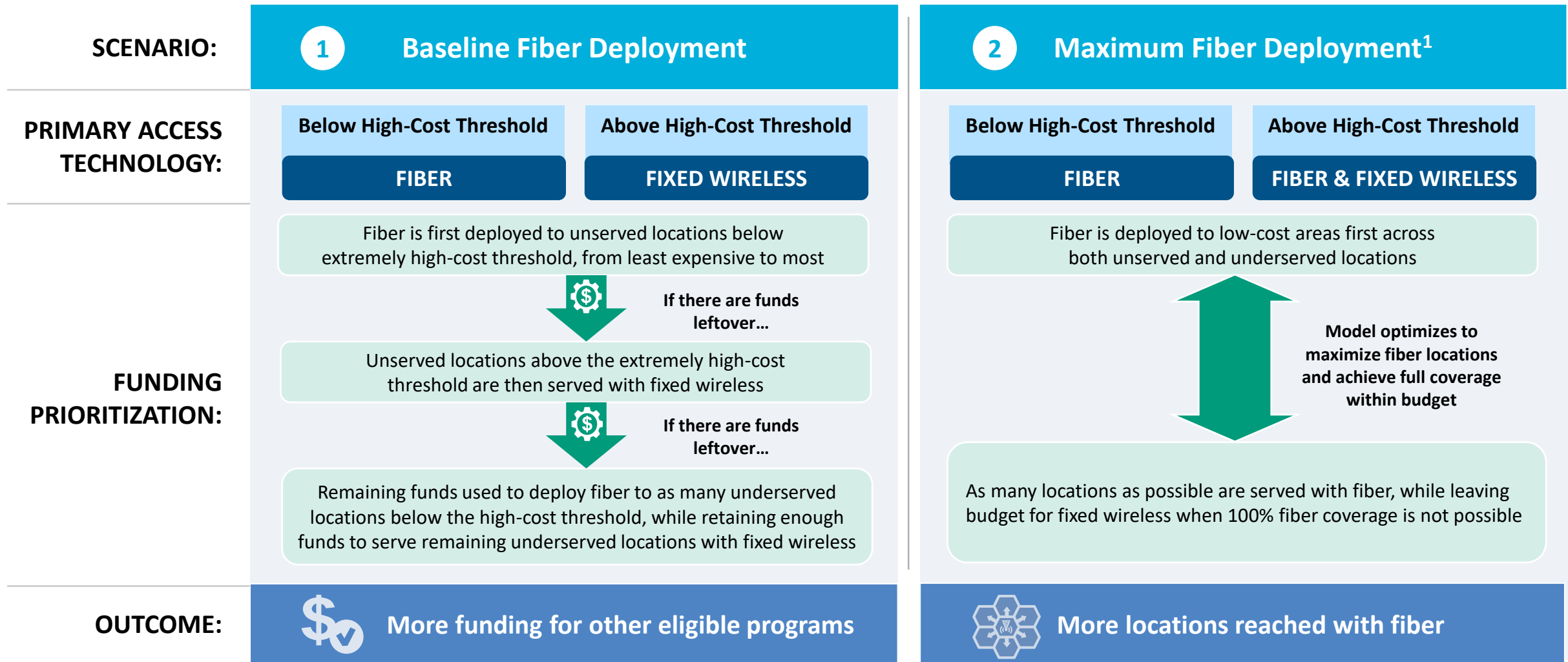
## CAPEX Fiber Deployment Cost per Location Segmented by Cost Deciles<sup>1</sup>



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

1. Chart values are average cost per location for each decile bucket  
 Source: Cartesian, FCC National Broadband Map (June 2023 data, released in November 2023)  
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## Tennessee | Fiber Preferencing Scenarios



1. Scenario 2 deploys fiber beyond the extremely high-cost threshold

Source: Cartesian

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# 3 Develop Deployment Scenarios

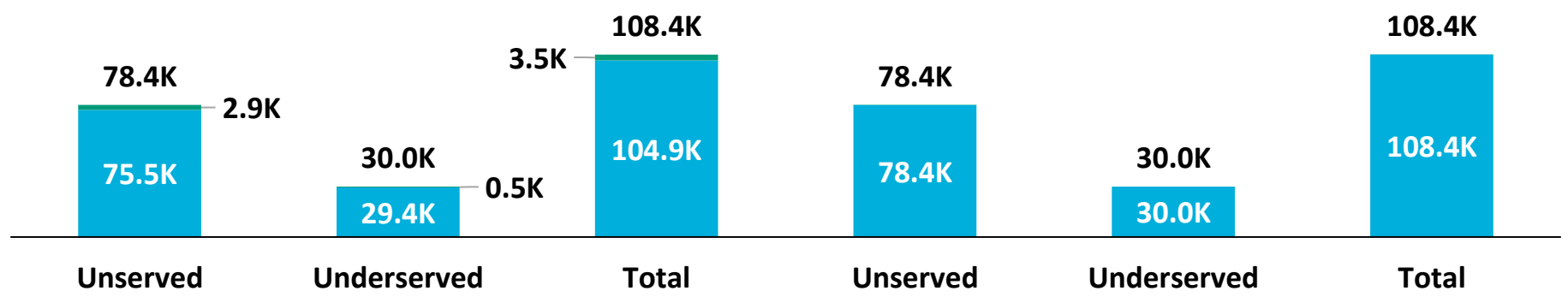
## Tennessee | Scenario Analysis Results

SCENARIO:

### 1 Baseline Fiber Deployment

### 2 Maximum Fiber Deployment

■ Fixed Wireless  
■ Fiber



	Scenario 1	Scenario 2
Capex Required per Locations <sup>1</sup>	\$5,984	\$5,120
BEAD Funds Available to State	\$813M	\$813M
+ Estimated Provider Match	\$305M	\$305M
= Total Available Capital	\$1.1B	\$1.1B
- Capex Required to Build	\$623M	\$667M
= Remaining Funds	\$496M	\$451M
% of Locations Reached	100%	100%
% of Locations Reached with Fiber	97%	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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# Tennessee | Conclusion



## Funding Summary

Tennessee is expected to receive

**\$813M in BEAD funding**



**\$305M in estimated provider matching**

We estimate the funding is sufficient to reach all of Tennessee’s 108.4k eligible locations with high-speed broadband



## Key Findings

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

### A Baseline Fiber Deployment...



### Maximizing Fiber...

- Leaves \$496M additional funds for affordability programs
- Reaches 97% of locations with fiber
- Requires 3% to be reached with other tech.

- Leaves \$451M 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**



# Tennessee | ACA Connects Members

Member Name	
Benton Ridge Telephone Company	Newport Utilities
Bledsoe Telephone Cooperative	North Alabama Electric Cooperative
Board Of Public Utilities Of The City Of Tullahoma	North Central Communications
Bristol Tennessee Essential Services	Point Broadband, LLC
BTC Communications	Scott Telecom And Electronics, Inc.
Cable One, Inc.	Sequachee Valley Electric Cooperative
Columbia Power Water Systems	Skyline Telephone Membership Corporation
Community Television Co, Inc.	Spring City Cable TV, Inc.
Consolidated Communications, Inc.	TDS Telecom
DTC Communications	Telepak Networks, Inc, dba Cspire
Gibson Connect, LLC	Twin Lakes Communications, Inc.
Grain Capital	United Telephone Company
Holston Electric Cooperative, Inc.	Volunteer Wireless, LLC
Jackson Energy Authority	Vyve
Johnson City Energy Authority dba Brightridge	West Kentucky Rural Telephone Coop Corp, Inc.
Knoxville Utilities Board	Wide Open West Networks, LLC
Mediacom, LLC	Wilkes Communications, Inc.
Morristown Utilities Commission	



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