

RED LIGHT REPORT

A Report by Senator Ted Cruz
Ranking Member

U.S. Senate Committee on Commerce,
Science, and Transportation

Stop Waste, Fraud, and Abuse
in Federal Broadband Funding

EXECUTIVE SUMMARY

A recurring theme in our political system is the government's habit of throwing taxpayer dollars at problems without ever solving them. One costly example is access to high-speed Internet. As the Internet has become a part of daily life, there have been bipartisan calls for the government to ensure that no one is left unconnected. Yet even after billions in spending by numerous federal agencies over two decades, many Americans still lack access to high-speed broadband.

In June, the Biden administration allocated \$42.45 billion in Broadband Equity, Access, and Deployment (BEAD) funding among states—the largest single pot of federal broadband spending in our country's history. Biden officials at the National Telecommunications and Information Administration (NTIA) made these allocations despite repeated requests from lawmakers and communities across the country to first improve the data underlying NTIA's funding decisions.¹ I also joined colleagues in asking officials to eliminate the social agenda that was attached to this infrastructure program—extralegal provisions not found in any statute that raise the cost of projects and reduce the number of Americans who will benefit.²

Biden officials largely dismissed these concerns, claiming that BEAD allocations would “make sure everyone in America has access to high-speed Internet and our digital society.”³ Now that NTIA has made BEAD allocations, however, it appears that the program will waste billions of dollars in duplicative subsidies and divert funds away from truly unserved rural areas. This report analyzes the current state of BEAD funding, on a per-beneficiary basis and in the context of three other recent federal programs that already doled out \$17 billion for broadband deployment. It offers three key findings:

1. The Biden administration's BEAD allocations provide ten states and territories more than \$10,000 per unserved location—including a galling \$547,254 per unserved location in Washington, D.C.
2. Because the BEAD program did not consider whether a location would be served in the near future through funding from a previous federal program, it allocated funding to over five million locations that are already being funded by other federal programs. If funding from other programs had been considered, seven states would have had zero unserved locations. As a result, the billions in taxpayer dollars sent to these states will be diverted to purposes other than connecting unserved Americans.
3. The Biden administration's technology bias against non-fiber broadband will drive up costs by billions of dollars and likely deprive some communities of any broadband access at all. Further, some of the “unserved” locations that will receive taxpayer-subsidized fiber-to-the-home service include mansions, beachfront resort communities, and mountain vacation homes.

Forty-two billion dollars is more than enough money to deliver broadband to every American. Will it succeed in doing so? In light of these findings, count me skeptical. This report should serve as a call to action for the Biden administration and the states to ensure BEAD dollars are not funneled to duplicative and wasteful purposes, and instead are used to solve the nation's connectivity challenges once and for all.



¹ See, e.g., Letter from Ted Cruz and John Thune, U.S. Senators, to Alan Davidson, Asst. Sec. Nat'l Telecomm. & Info. Admin. and Jessica Rosenworcel, Chairwoman, Fed. Comm'n. Comm'n. (Feb. 3, 2023); Press Release State of Texas, Texas Comptroller Glenn Hegar Petitions Federal Government on Timing of its Broadband Map Development, Release of Federal Broadband Funding (Dec. 13, 2022), <https://comptroller.texas.gov/about/media-center/news/20221213-texas-comptroller-glenn-hegar-petitions-federal-government-on-timing-of-its-broadband-map-development-release-of-federal-broadband-funding-1670529272704>; Press Release State of Vermont, VCBB and Vermont's Congressional Delegation Ask the FCC for More Time to Challenge Its Maps, (Dec. 21, 2022), <https://publicservice.vermont.gov/announcements/vcbb-and-vermonts-congressional-delegation-ask-fcc-more-time-challenge-its-maps>.

² Letter from Sen. Ted Cruz, Ranking Member, S. Comm. on Commerce, Science, and Transportation, U.S. Senators, et al., to Alan Davidson, Assistant Sec'y, Nat'l Telecomm. & Info. Admin. (Apr. 20, 2023).

³ Letter from Paul Desai, Dir. of Cong. Affairs, Nat'l Telecomm. & Info. Admin. to Sen. Ted Cruz, Ranking Member, S. Comm. on Commerce, Science, and Transportation (Mar. 10, 2023).

OVER \$125 BILLION IN FEDERAL BROADBAND SPENDING

Over the past four years, the federal government has dedicated over \$125 billion in funding for broadband connectivity. Most of this funding was allocated to build broadband connectivity to homes and businesses. Major broadband funding of at least \$1 billion has been divided among four federal agencies: the National Telecommunications and Information Administration (NTIA) within the U.S. Department of Commerce; the U.S. Department of Agriculture (USDA); the U.S. Department of Treasury (Treasury); and the Federal Communications Commission (FCC).

Table 1: Federal Programs with at least \$1 billion in Funding for Broadband

TOTAL FUNDING SINCE 2019	AGENCY	PROGRAM NAME	STATUS
BROADBAND FUNDING FOR DEPLOYMENT: \$82.2 BILLION			
\$42.45 BILLION	NTIA	Broadband Equity, Access, and Deployment (BEAD)	NTIA announced funding allocations for each state, but funds have not yet been made available for projects. NTIA reserved \$849 million to administer the program—about 7 times more than the NTIA total staff budget request for Fiscal Year 2024—that is effectively a block grant program administered by state offices.
\$21.6 BILLION	FCC	High Cost Program	Total amount disbursed to companies from 2019-present to subsidize broadband networks, including build out, in high cost rural areas. This funding includes Rural Digital Opportunity Fund, Connect America Fund Phase II, A-CAM, legacy rate-of-return, and other programs.
\$10 BILLION	Treasury	Capital Projects Fund ^a	Treasury has approved funding applications for most states with five states and territories remaining to be approved.
\$5.15 BILLION	RUS	ReConnect	Funding has been awarded to broadband connectivity projects that are in phases of planning, construction, and completion.
\$3 BILLION	NTIA	Tribal Broadband Connectivity Fund	\$1.8 billion has been awarded from the first funding round and another application period has been opened.
BROADBAND FUNDING FOR OTHER USES: \$47.1 BILLION			
\$14.2 BILLION	FCC	Affordable Connectivity Program (ACP)	Provides \$30/month broadband subsidy (or \$75/month for Tribal households) to more than 19 million enrolled households, in addition to one-time discount of \$100 to purchase a laptop, desktop computer, or tablet.
\$7.1 BILLION	FCC	Emergency Connectivity Fund	\$6.95 billion in funding awarded to schools and libraries for devices and broadband connections for remote learning during the COVID-19 pandemic.
\$7 BILLION	Treasury	State and Localities Fiscal Recovery Funding	Total funding for this program is \$350 billion; states and localities have thus far reported using \$7 billion towards broadband-related projects.
\$11.9 BILLION	FCC	E-Rate	Funding committed to schools and libraries for discounts ranging from 20 percent to 90 percent of the costs of eligible services including telecommunications services and Internet access.
\$3.2 BILLION	FCC	Emergency Broadband Benefit	COVID-era broadband subsidy program that was replaced with ACP.
\$2.7 BILLION	NTIA	Digital Equity and Inclusion	\$600,000 in planning grants awarded; up to \$60 million will be awarded in planning grants before remaining funding is made available.
\$1 BILLION	NTIA	Middle Mile Infrastructure	\$930 million in funding has been awarded.

Sources: Reporting from agency websites.

Table Note: ^a This program is aimed toward broadband but funding may be used for other investments that meet Treasury criteria.

This is a huge amount of taxpayer investment spread throughout various programs at these agencies. And yet, this is not the federal government's first attempt to address broadband connectivity. The 2009 American Recovery and Reinvestment Act provided over \$7 billion in broadband funding to NTIA and USDA, and quantifiable benefits were hard to come by.⁴ Previous failures have been attributed to both poor data—the funding did not go to the right places; and a lack of funds—there supposedly was not enough money to achieve universal connectivity. The Biden administration suggests it will succeed where past attempts have failed, due to improved FCC data depicting where broadband gaps exist, and the unprecedented amount of funds currently dedicated to broadband.⁵

This report offers a deep dive into the single largest pot of money (\$42.45 billion) through the NTIA's Broadband Equity, Access, and Deployment (BEAD) program, and highlights potential pitfalls that could result in some areas remaining unserved despite this mammoth investment.

"JUST LIKE FRANKLIN DELANO ROOSEVELT'S RURAL ELECTRIFICATION ACT BROUGHT ELECTRICITY TO NEARLY EVERY HOME AND FARM IN AMERICA, PRESIDENT BIDEN AND VICE PRESIDENT HARRIS ARE DELIVERING ON THEIR HISTORIC COMMITMENT TO CONNECT EVERYONE IN AMERICA TO RELIABLE, AFFORDABLE HIGH-SPEED INTERNET BY THE END OF THE DECADE."⁶

– The White House

⁴ See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-12-937, BROADBAND PROGRAMS ARE ONGOING, AND AGENCIES' EFFORTS WOULD BENEFIT FROM IMPROVED DATA QUALITY (SEPT. 2012) (describing the failed \$4 billion Broadband Technology Opportunities Program created by the American Recovery and Reinvestment Act of 2009), <https://www.gao.gov/assets/gao-12-937.pdf>.

⁵ Press Release, Nat'l Telecomm. & Info. Admin., Biden-Harris Administration Launches \$45 Billion "Internet for All" Initiative to Bring Affordable, Reliable High-Speed Internet to Everyone in America (May 13, 2022), <https://broadbandusa.ntia.doc.gov/news/latest-news/biden-harris-administration-launches-45-billion-internet-all-initiative-bring>.

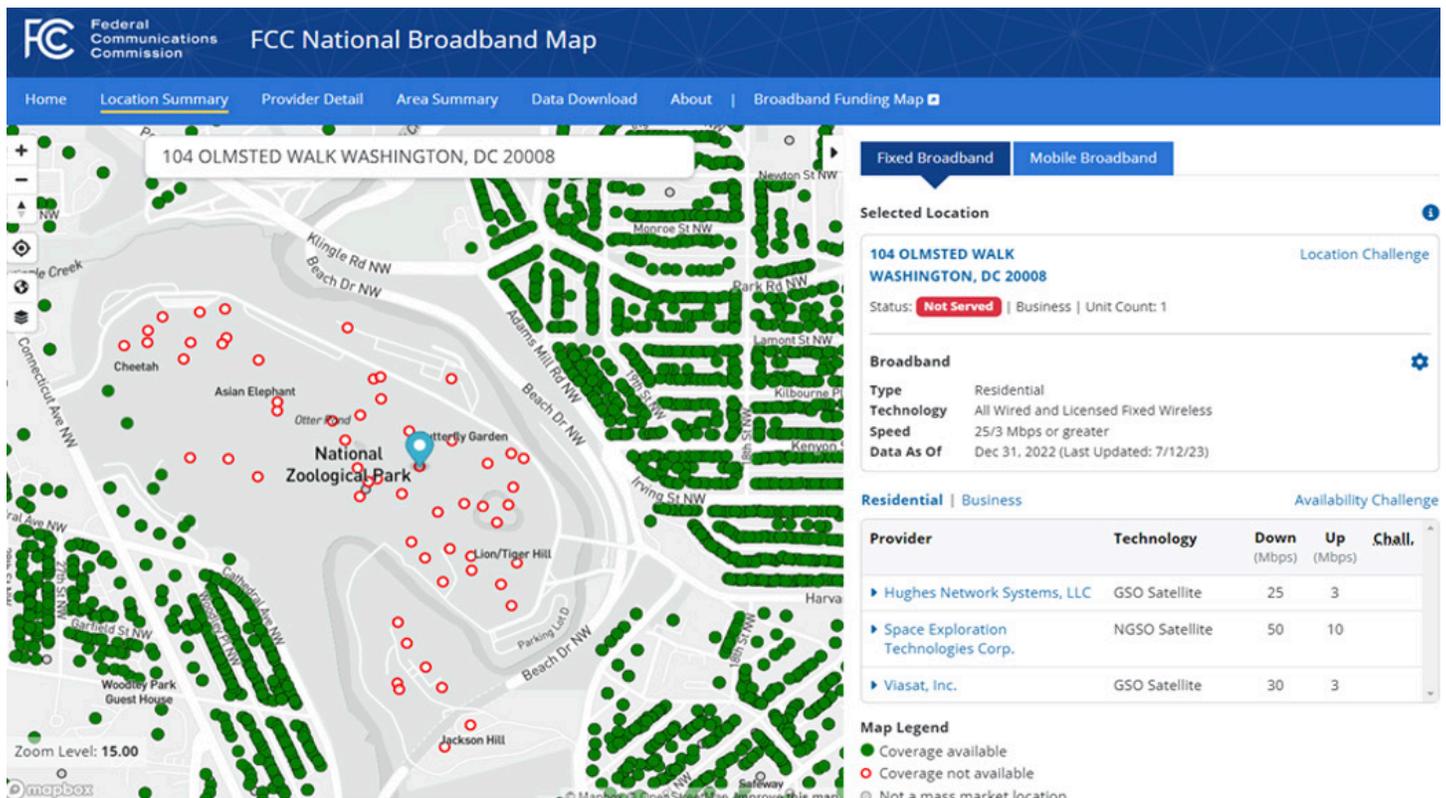
⁶ Press Release, The White House, Fact Sheet: Biden-Harris Administration Announces Over \$40 Billion to Connect Everyone in America to Affordable, Reliable, High-Speed Internet, (June 26, 2023), <https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/26/fact-sheet-biden-harrisadministration-announces-over-40-billion-to-connect-everyone-in-america-to-affordable-reliable-high-speed-internet/>.

BEAD ALLOCATIONS DIVERT FUNDING FROM TRULY UNSERVED AREAS

On June 26, 2023, the Biden administration announced BEAD allocations, dividing up \$42.45 billion in funding for U.S. states and territories (herein collectively referred to as states). The Biden administration allocated BEAD funding to states based on each state's proportionate number of unserved locations, as reflected in the FCC's National Broadband Map.⁷ States and territories also received a minimum amount of funding—each state, Washington, D.C., and Puerto Rico, were respectively allocated a baseline amount of \$100 million, and the remaining territories were allocated a minimum of \$25 million each. The resulting allocations disproportionately benefited states with few unserved locations (see Appendix I table one for full breakdown of funding per unserved location). For example, Washington, D.C., and Delaware—both of which are geographically small with dense populations—were respectively allocated more than \$547,000 and \$52,000 per unserved location—significantly more than the nationwide median allocation of \$5,600 per unserved location.

According to the FCC's National Broadband Map, which was used by NTIA to allocate BEAD funding based on each state's share of unserved locations, 58 of the 184 unserved locations in D.C. are at the Smithsonian National Zoo, including the Butterfly Garden, Lion-Tiger Hill, and the Otter Pond. Red circles in the map below indicate each such location.

FCC National Broadband Map shows 33% of Unserved Locations in Washington D.C. are at the National Zoo



Source: Federal Communications Commission National Broadband Map

⁷ Fed. Comm'n. Comm'n., National Broadband Map, <https://broadbandmap.fcc.gov/home> (accessed Aug. 2, 2023).

Providing Washington, D.C., which appears to have almost no unserved locations, with such a disproportionately large amount of funding diverts BEAD funds from truly unserved areas of the country. Although states are required to prioritize BEAD projects that will connect unserved locations, they may use their funding for other purposes if they certify to NTIA that all unserved locations in the state will be served.⁸ As a result, it is likely that in states with few unserved locations, BEAD funding will be diverted to purposes other than bringing broadband access to those without service.⁹

New Biden BEAD funding to Close Digital Divide at the National Zoo



Source: Created by Commerce Committee Staff with artificial intelligence application.

⁸ See, e.g., Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 60102(f), (h)(1) (2021).

⁹ Biden administration guidance states that “Eligible Entities that demonstrate they will be able to ensure service to all unserved and underserved location will be free to propose plans that use remaining funds in a wide variety of ways... [such as] access-, adoption-, and equity-related uses...”. Nat’l Telecomm. & Info. Admin., NTIA-BEAD-2022, Notice of Funding Opportunity: Broadband Equity, Access, and Deployment Program (May 13, 2022), <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>.

BEAD ALLOCATIONS FAIL TO CONSIDER BILLIONS IN BROADBAND SPENDING FROM OTHER PROGRAMS

In addition to over-allocating BEAD dollars among states with few, if any, broadband availability gaps, the Biden administration’s BEAD allocations also failed to account for other recent federal broadband spending. That failure, too, will likely lead to waste. BEAD is only one of many recent broadband funding programs, as outlined in table 1 above. For example, three other federal programs have collectively recently allocated almost \$17 billion in taxpayer money:

- 1) **FCC’s Rural Digital Opportunity Fund (RDOF);**
- 2) **Treasury’s Capital Projects Fund (CPF); and**
- 3) **USDA’s ReConnect program.**

As discussed, the Biden administration allocated BEAD funding to states based on each state’s proportionate number of unserved locations, as reflected in the FCC’s National Broadband Map. According to the FCC’s map, there are approximately 8.3 million unserved locations in the U.S. That number, however, is an overestimate since the FCC’s map only depicts current broadband availability and does not account for areas where broadband funding has already been allocated, but networks have not yet been completed.

Combined, RDOF, CPF and ReConnect have reported that they will serve over five million locations in the next several years. These three programs alone are thus projected to reduce the number of unserved locations by more than half, leaving the BEAD program with just over three million unserved locations to address. If these locations had been considered served, seven states and territories would have been left with zero locations remaining to be served by BEAD. (See table 2 in the Appendix for full list of number of locations to be served by state.) **Because of the failure to count these locations as served, there are over 85,000 locations in seven states and territories that are effectively being double-counted, or twice-served.**

Table 2: Other Federal Broadband Deployment Programs with Estimated Locations to Be Served

AGENCY	PROGRAM	CURRENT ALLOCATION	NUMBER OF LOCATIONS TO BE SERVED
FCC	Rural Digital Opportunity Fund	\$6 billion	2.8 million
TREASURY	Capital Projects Fund	\$7 billion	1.9 million
USDA	ReConnect	\$3.9 billion	.4 million
TOTAL		\$16.9 billion	5.1 million

Sources: Reporting on agency websites.

It is important to note that these estimated numbers of locations served by other federal broadband programs are conservative and do not account for all recent federal broadband funding. For example, Treasury reporting shows that at least \$7 billion of Coronavirus State and Local Fiscal Recovery Funds (SLFRF), provided for in the American Rescue Plan Act of 2021, has been used to fund broadband-related projects.¹⁰ Treasury, however, does not report the number of estimated locations to be served by this funding. Therefore, SLFRF funding is not included in this analysis.

¹⁰ See, e.g., American Rescue Plan Act of 2021, Pub. L. No. 117-2 (2021); Recipient Compliance and Reporting Responsibilities: Public Reporting, U.S. Dep’t of Treasury, <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds/recipient-compliance-and-reporting-responsibilities> (last visited July 13, 2023).

CASE STUDY: DELAWARE

A closer look at unserved locations in Delaware provides an illustration of the inefficiencies described above. In June, the Biden administration allocated Delaware almost \$108 million BEAD funding to serve the state's 2,166 unserved locations. One of these locations is the Biden Environmental Training Center (pictured below), a state-run conference, training, and retreat center situated just eleven miles north of Rehoboth Beach.

“Unserved” Biden Environmental Training

The screenshot shows a map of the Biden Environmental Training Center at 37565 DUNE ROAD LEWES, DE 19958. The map interface includes a search bar with the address, a zoom level of 15.00, and a legend for coverage status. The center is marked with a red dot, indicating it is not served. To the right, a data panel provides details for the location, including its status as 'Not Served', broadband type as 'Residential', and a list of providers with their respective technologies and speeds.

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Hughes Network Systems, LLC	GSO Satellite	25	3	
Space Exploration Technologies Corp.	NGSO Satellite	50	10	
Viasat, Inc.	GSO Satellite	30	3	

Source: Federal Communications Commission National Broadband Map

Taking into account other federal broadband monies Delaware already received, the state should already have more than enough funding to build broadband to all 2,166 currently unserved locations—including the Biden Environmental Training Center—without BEAD dollars. In November 2020, more than \$13 million was awarded to cover 7,749 unserved locations in the state under the FCC's RDOF program, over an eight-year buildout timeline. None of these connections have thus far been built, according to the FCC's map.

Further, Delaware, in 2022, awarded an additional \$33 million in CARES Act and American Rescue Plan Act funds to build broadband to over 6,500 homes and businesses. Much of this funding is likely going toward duplicative buildout: in total, recent federally funded projects in Delaware are slated to serve over 14,000 locations—seven times more than the approximately 2,000 unserved locations in the state according to FCC's map. Delaware is about to receive \$108 million more through the BEAD program, the risk of duplicative spending is obvious and palpable.

¹¹ See, e.g., Broadband Strategy for Delaware, Broadband Strategy Dashboard, Delaware Broadband Office. https://experience.arcgis.com/experience/c8637db6327646f9bf33432da9b82f85/?data_id=widget_17_output%3A0 (accessed Aug. 28, 2023).

THE BIDEN ADMINISTRATION'S EXTREME TECHNOLOGY BIAS: A FURTHER RECIPE FOR WASTE

In drafting the BEAD provisions of the IJA, Congress pursued a policy of tech neutrality, allowing any provider to participate if it could meet the statute's performance requirements.¹² Congress pursued this policy for good reason: technology neutrality has been a guiding principle for broadband innovation over the last two decades. Consumers benefit the most when the market—not the government—picks winning and losing technologies. In contrast, tilting rules to favor specific types of providers harms innovation and drives up costs for taxpayers.

Despite the statute's technology-neutral stance, NTIA's implementing regulations take a different approach and generally prohibit non-fiber projects from participating in the BEAD program. In NTIA's notice of funding opportunity (NOFO), the agency instructed states to award BEAD funding to "priority projects," which it defined as projects that will provide service "via end-to-end fiber-optic facilities to each end-user premises" unless the cost per location exceeds the "Extremely High Cost Per Location Threshold" or for "other valid reasons" subject to NTIA approval.¹³ NTIA further instructed states to "set the Extremely High Cost Per Location Threshold **as high as possible** to help ensure that end-to-end fiber projects are deployed wherever feasible (emphasis added)."¹⁴ In other words, NTIA's rules effectively block states from funding non-fiber projects without permission from the agency despite what the law says.

This bias will drive up costs and waste taxpayer dollars, especially if the Biden administration's implementation of other programs serves as precedent. The Biden administration spent over \$200,000 per location for one award in USDA's ReConnect broadband grant program, and on average spent \$22,000 per location across all ReConnect awards for 2023.¹⁵ The top two most expensive cost-per-location awards—\$236,000 and \$191,000—went to companies in New Mexico that will provide fiber broadband service to 135 households for a combined \$26 million. By contrast, the Technology Director for the Cuba Independent School District in New Mexico recently testified before Congress that his school district purchased satellite-based (non-fiber) broadband for unconnected households, **with a reported cost per location of \$500, or two percent of the cost of the two recent New Mexico ReConnect projects.**¹⁶ Further, the project reached speeds in excess of BEAD requirements and, according to the Technology Director's testimony, satellite connections were installed quickly and avoided permitting obstacles common with fiber builds.¹⁷ The Biden administration's extreme fiber bias will thus invariably lead to overspending and diminished competition at the expense of unserved communities.

¹² Specifically, the statute states that the internet service provider "shall provide broadband service at a speed of not less than 100 megabits per second for downloads and 20 megabits per second for uploads; with a latency that is sufficiently low to allow reasonably foreseeable, real-time, interactive applications; and with network outages that do not exceed on average 48 hours over any 365-day period." See Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 (2021).

¹³ Nat'l Telecomm. Info. & Admin., *supra* note 9.

¹⁴ *Id.*

¹⁵ Calculations by Commerce Minority staff based on information as reported by United States Department of Agriculture on ReConnect Program FY 2023 Awardees, <https://www.usda.gov/reconnect/round-four-awardees> (accessed July 13, 2023).

¹⁶ Cedar Attanasio, *Rural New Mexico school buys Starlink internet for students*, ASSOCIATED PRESS (Dec. 29 2021), <https://apnews.com/article/technology-cuba-new-mexico-education-36333e9a8820378463cba60b03f1b745>.

¹⁷ *The State of Universal Service: Hearing Before the Sub. Comm. on Communications, Media, and Broadband of the S. Comm. on Commerce, Science, and Transportation*, 118th. Cong. (May 11, 2023) (testimony of Timothy Chavez, Dir. of Technology, Cuba Independent School District, New Mexico).

Moreover, NTIA ignores the reality that alternative technologies like fixed wireless and satellite may be better suited to different consumers and geographies. Take, for example, Tuckernuck Island, a small private island off the coast of Massachusetts where property values are listed as over \$1 million. The island has no wired service, but it does have access to satellite service with speeds that exceed the thresholds set by Congress for BEAD, according to the FCC’s map. However, because the Biden administration’s BEAD rules summarily exclude certain technologies—namely unlicensed fixed wireless and satellite—from being considered “reliable broadband service,” the entire island is considered unserved for the purposes of BEAD and eligible to be overbuilt. This summary exclusion is not only at odds with the IIJA but real-world cases where non-fiber technologies have served as reliable and innovative alternatives.¹⁸

Unserved Private Island Off The Coast of Massachusetts

The screenshot shows the FCC National Broadband Map interface. The selected location is 60 TUCKERNUCK IS, NANTUCKET, MA 02554. The status is 'Not Served' for residential units. The broadband type is Residential, with technology including All Wired and Licensed Fixed Wireless, and a speed of 25/3 Mbps or greater. A table of providers is shown below:

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Hughes Network Systems, LLC	GSO Satellite	25	3	
Space Exploration Technologies Corp.	NGSO Satellite	220	25	
Viasat, Inc.	GSO Satellite	30	3	

Source: Federal Communications Commission National Broadband Map

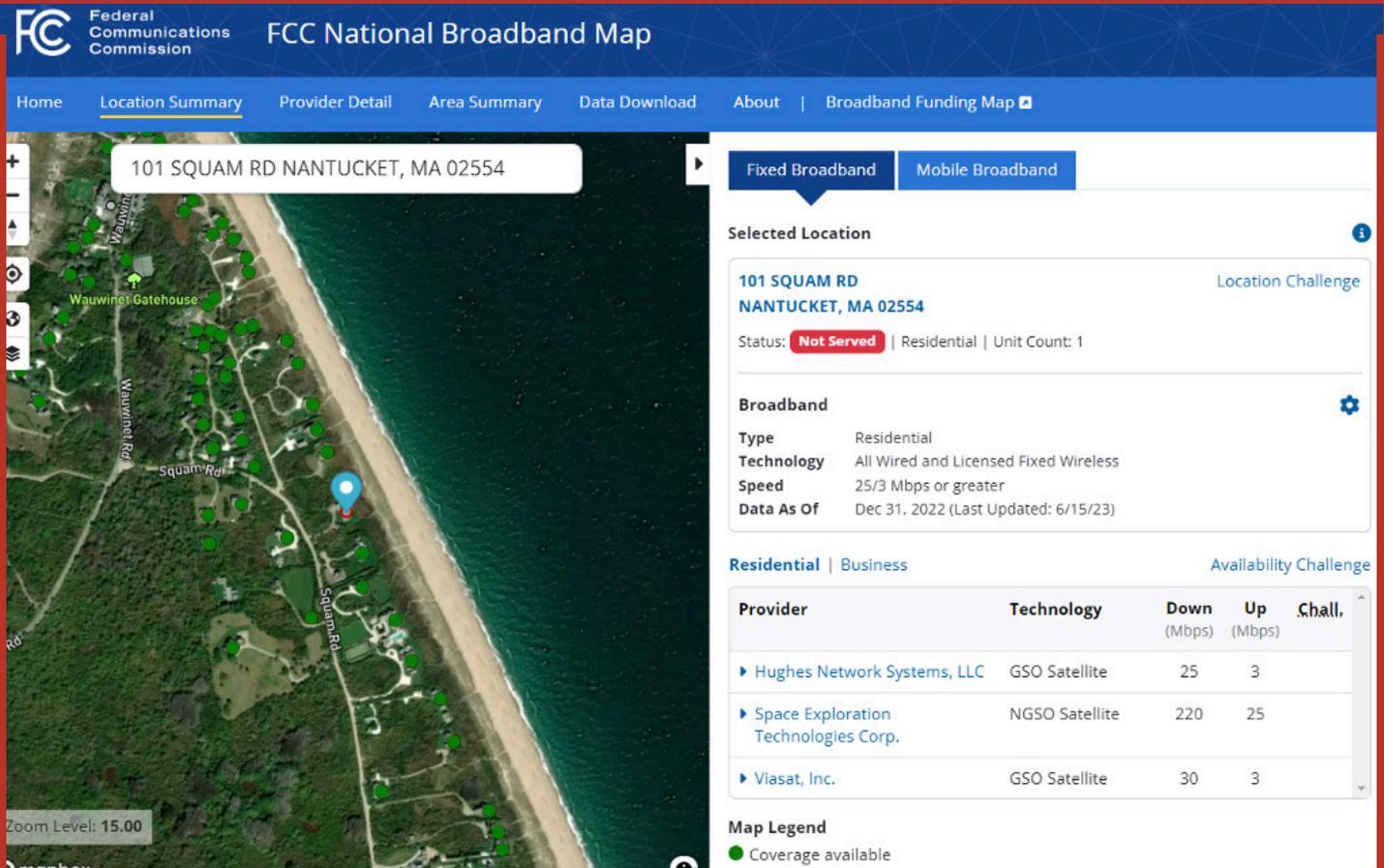
Beyond the fact that running fiber to this remote island would likely come at an exorbitant cost, it is not even clear that residents would want it. According to one local real estate website, this area is collectively owned, fully off the electrical grid, and has no grocery stores or restaurants in order to embody a “simpler way of life.”¹⁹ BEAD’s lack of consideration as to whether an unserved location truly needs taxpayer subsidies means that locations like Tuckernuck, will be prioritized to receive expensive fiber service. Below are further examples of “unserved” locations in the queue for BEAD-funded fiber broadband: beachfront communities, mountain wedding venues, and mansions.

¹⁸ See, e.g., Michael O’Rielly, *Responding to Biden Administration’s Tech Neutrality Rejection*, Blog post, TMT AND ME (Sep. 7, 2022) <https://mporinc.blogspot.com/2022/09/>; Dr. William Lehr, *Getting to the Broadband Future Efficiently with BEAD Funding*, WISPA (Jan. 2023), https://www.wispa.org/docs/Lehr_White_Paper_Final.pdf.

¹⁹ Fisher Real Estate, *Stories: Tuckernuck Island, Nantucket* (Oct. 10, 2020), <https://fishernantucket.com/tuckernuck/#:~:text=Tuckernuck%2C%20just%20west%20of%20Madaket,to%20keep%20it%20that%20way>.

EXAMPLE 1:

Beach Front Property in Massachusetts valued at over \$8 million



Federal Communications Commission
FCC National Broadband Map

Home Location Summary Provider Detail Area Summary Data Download About Broadband Funding Map

101 SQUAM RD NANTUCKET, MA 02554

Fixed Broadband Mobile Broadband

Selected Location

101 SQUAM RD
NANTUCKET, MA 02554 Location Challenge

Status: **Not Served** | Residential | Unit Count: 1

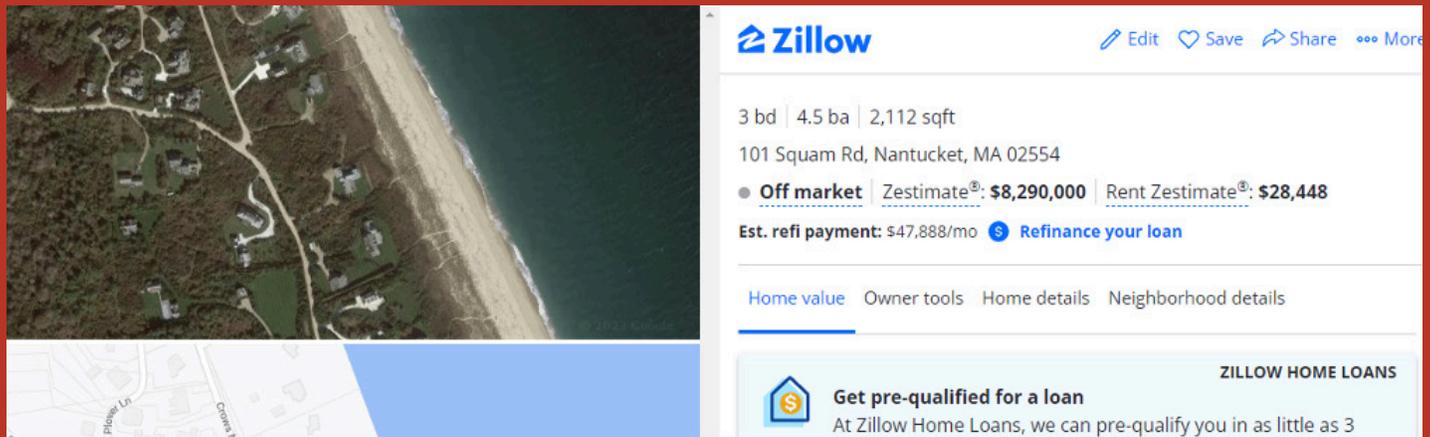
Broadband

Type Residential
Technology All Wired and Licensed Fixed Wireless
Speed 25/3 Mbps or greater
Data As Of Dec 31, 2022 (Last Updated: 6/15/23)

Residential | Business Availability Challenge

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Hughes Network Systems, LLC	GSO Satellite	25	3	
Space Exploration Technologies Corp.	NGSO Satellite	220	25	
Viasat, Inc.	GSO Satellite	30	3	

Map Legend
● Coverage available



Zillow

3 bd | 4.5 ba | 2,112 sqft

101 Squam Rd, Nantucket, MA 02554

● Off market | Zestimate®: **\$8,290,000** | Rent Zestimate®: **\$28,448**

Est. refi payment: \$47,888/mo [Refinance your loan](#)

Home value Owner tools Home details Neighborhood details

[Get pre-qualified for a loan](#) ZILLOW HOME LOANS

At Zillow Home Loans, we can pre-qualify you in as little as 3

Source: Federal Communications Commission National Broadband Map and Zillow.com

EXAMPLE 2:

\$3.1 million Wedding Venue in Vail, Colorado

The screenshot shows the FCC National Broadband Map interface. The top navigation bar includes 'Home', 'Location Summary', 'Provider Detail', 'Area Summary', 'Data Download', 'About', and 'Broadband Funding Map'. The main content area is split into a map on the left and a data panel on the right. The map shows an aerial view of a residential area with a blue location pin at 1600 S Frontage Rd W, Vail, CO 81657. The data panel on the right provides details for this location, including its status, broadband type, technology, speed, and a list of providers with their respective technologies, download speeds, and upload speeds.

Fixed Broadband | Mobile Broadband

Selected Location Location Challenge

**1600 S FRONTAGE RD W
VAIL, CO 81657**

Status: **Not Served** | Business | Unit Count: 1

Broadband Settings

Type: Residential
Technology: All Wired and Licensed Fixed Wireless
Speed: 25/3 Mbps or greater
Data As Of: Dec 31, 2022 (Last Updated: 6/15/23)

Residential | Business Availability Challenge

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Hughes Network Systems, LLC	GSO Satellite	25	3	
Lumen Technologies, Inc.	Copper	0.2	0.2	
Space Exploration Technologies Corp.	NGSO Satellite	50	10	
Viasat, Inc.	GSO Satellite	50	3	



Source: Federal Communications Commission National Broadband Map and Instagram.com

EXAMPLE 3:

10k square foot Mansion with Private Lake and Mountain Views

Federal Communications Commission
FCC National Broadband Map

Home | Location Summary | Provider Detail | Area Summary | Data Download | About | Broadband Funding Map

901 RED CANYON CREEK RD EDWARDS, CO 81

Fixed Broadband | Mobile Broadband

Selected Location

**901 RED CANYON CREEK RD
EDWARDS, CO 81632** Location Challenge

Status: **Not Served** | Residential | Unit Count: 2

Broadband

Type: Residential
Technology: All Wired and Licensed Fixed Wireless
Speed: 25/3 Mbps or greater
Data As Of: Dec 31, 2022 (Last Updated: 6/15/23)

Residential | Business Availability Challenge

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
▶ Hughes Network Systems, LLC	GSO Satellite	25	3	
▶ Lumen Technologies, Inc.	Copper	0.2	0.2	
▶ Pathfinder LLC	Unlicensed Fixed Wireless	50	10	
▶ Space Exploration Technologies Corp.	NGSO Satellite	50	10	



Source: Federal Communications Commission National Broadband Map and Zillow.com

EXAMPLE 4:

A 90 Acre Country Estate located just 90 minutes from Washington D.C.

Federal Communications Commission
FCC National Broadband Map

Home | Location Summary | Provider Detail | Area Summary | Data Download | About | Broadband Funding Map

2792 BULL RUN MOUNTAIN RD THE PLAINS, VA

Fixed Broadband | Mobile Broadband

Selected Location Location Challenge

**2792 BULL RUN MOUNTAIN RD
THE PLAINS, VA 20198**

Status: **Not Served** | Residential | Unit Count: 1

Broadband Settings

Type: Residential
Technology: All Wired and Licensed Fixed Wireless
Speed: 25/3 Mbps or greater
Data As Of: Dec 31, 2022 (Last Updated: 6/15/23)

Residential | Business Availability Challenge

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
Hughes Network Systems, LLC	GSO Satellite	25	3	
Space Exploration Technologies Corp.	NGSO Satellite	50	10	
T-Mobile USA, Inc.	Licensed Fixed Wireless	0.2	0.2	
Viasat, Inc.	GSO Satellite	30	3	

Zoom Level: 15.43



Source: Federal Communications Commission National Broadband Map and Redfin.com

CONCLUSIONS AND RECOMMENDATIONS

Although the unprecedented \$42.45 billion in BEAD funding should be more than sufficient to bring broadband connectivity to every last household and business in America, the country cannot achieve this goal if the Biden administration wastes money through unnecessary, duplicative spending and anti-competitive, anti-consumer technology bias. Specifically, taxpayer dollars should not be used to:

- 1) Overbuild areas that already have broadband service or are slated to receive support from other federal or state programs.
- 2) Fund unnecessarily expensive solutions. The administration's technology bias is not only inconsistent with the text of the law but is likely to lead to overspending at the expense of connecting unserved communities.

State and federal officials should take the following steps to ensure appropriate use of federal taxpayer funds.

Recommendation 1: States that have more than adequate funding through a variety of federal sources to expand high-speed Internet should return unused BEAD funding. This funding could be reallocated to states that did not get enough to service all their unserved areas or to pay down the federal debt.

Recommendation 2: NTIA should revise BEAD rules so less costly technologies that are capable of meeting the IIA broadband standard, like satellite and fixed wireless, are subject to a level playing field.

Despite the significant potential for waste in the BEAD program by the Biden administration the funding has not been spent yet. There is still time to course correct and ensure taxpayer funding is protected. Following the recommendations in this report would go a long way in achieving this goal.

APPENDIX:

BROADBAND TABLES BY STATE

Table 1: Broadband Equity, Access, and Deployment (BEAD) Funding Among States by Number of Unserved Locations

Eligible Entity	Number of Unserved Locations	BEAD Allocation	Allocation per Unserved location
District of Columbia	184	\$100,694,786.93	\$547,254.28
Delaware	2,052	\$107,748,384.66	\$52,508.96
Virgin Islands	557	\$27,103,240.86	\$48,659.32
Rhode Island	2,309	\$108,718,820.75	\$47,084.81
American Samoa	1,783	\$37,564,827.53	\$21,068.33
North Dakota	7,988	\$130,162,815.12	\$16,294.79
Hawaii	11,671	\$149,484,493.57	\$12,808.20
Connecticut	11,693	\$144,180,792.71	\$12,330.52
Massachusetts	12,522	\$147,422,464.39	\$11,773.08
Alaska	88,185	\$1,017,139,672.42	\$11,534.16
Wyoming	39,215	\$347,877,921.27	\$8,871.04
Nevada	51,689	\$416,666,229.74	\$8,061.02
Northern Mariana Islands	10,331	\$80,796,709.02	\$7,820.80
New Hampshire	25,572	\$196,560,278.97	\$7,686.54
Utah	41,535	\$317,399,741.54	\$7,641.74
South Dakota	28,397	\$207,227,523.92	\$7,297.51
Vermont	33,646	\$228,913,019.08	\$6,803.57
Idaho	85,902	\$583,256,249.88	\$6,789.79
Maine	42,264	\$271,977,723.07	\$6,435.21
New Jersey	43,324	\$263,689,548.65	\$6,086.45
California	306,910	\$1,864,136,508.93	\$6,073.89
Maryland	44,411	\$267,738,400.71	\$6,028.65
Montana	104,534	\$628,973,798.59	\$6,016.93
New Mexico	114,997	\$675,372,311.86	\$5,872.96
Nebraska	70,478	\$405,281,070.41	\$5,750.46
Oregon	122,384	\$688,914,932.17	\$5,629.13

Table 1 (Continued)

Colorado	147,484	\$826,522,650.41	\$5,604.15
Arizona	177,325	\$993,112,231.37	\$5,600.52
Puerto Rico	61,871	\$334,614,151.70	\$5,408.26
Oklahoma	150,718	\$797,435,691.25	\$5,290.91
Washington	236,535	\$1,227,742,066.30	\$5,190.53
Kansas	87,489	\$451,725,998.15	\$5,163.23
Missouri	337,484	\$1,736,302,708.39	\$5,144.84
Iowa	83,509	\$415,331,313.00	\$4,973.49
Minnesota	135,984	\$651,839,368.20	\$4,793.50
Arkansas	215,621	\$1,024,303,993.86	\$4,750.48
South Carolina	119,580	\$551,535,983.05	\$4,612.28
Louisiana	296,777	\$1,355,554,552.94	\$4,567.59
Guam	34,489	\$156,831,733.59	\$4,547.30
Mississippi	268,365	\$1,203,561,563.05	\$4,484.79
West Virginia	271,624	\$1,210,800,969.85	\$4,457.64
New York	149,369	\$664,618,251.49	\$4,449.51
Tennessee	186,394	\$813,319,680.22	\$4,363.44
Illinois	239,688	\$1,040,420,751.50	\$4,340.73
Ohio	183,709	\$793,688,107.63	\$4,320.36
Indiana	202,021	\$868,109,929.79	\$4,297.13
Florida	272,962	\$1,169,947,392.70	\$4,286.12
Texas	779,378	\$3,312,616,455.45	\$4,250.33
Michigan	368,390	\$1,559,362,479.29	\$4,232.91
Alabama	331,206	\$1,401,221,901.77	\$4,230.67
Kentucky	259,258	\$1,086,172,536.86	\$4,189.54
Wisconsin	253,097	\$1,055,823,573.71	\$4,171.62
Pennsylvania	278,536	\$1,161,778,272.41	\$4,171.02
Georgia	315,780	\$1,307,214,371.30	\$4,139.64
North Carolina	376,039	\$1,532,999,481.15	\$4,076.70
Virginia	364,156	\$1,481,489,572.87	\$4,068.28
Total	8,489,371	\$41,601,000,000.00	\$4,900.36

Source: The number of unserved locations reflects the data used by the National Telecommunications and Information Administration to make BEAD allocations as proved to the committee. BEAD allocation amounts were publicly reported by the Biden administration on June 26, 2023. Allocation per unserved location is calculated by dividing the total allocation by the total number of unserved.

APPENDIX:

BROADBAND TABLES BY STATE

Table 2: Locations to be Served by Other Federal Funding Programs by State

State	Number of Unserved Locations	CPF Locations to be Served ^a	ReConnect Locations to be Served ^b	Remaining RDOF to be Served ^c	Remaining Unserved
Alabama	331,206	55,000	28,435	136,381	111,390
Alaska	88,185	0	6,200	0	81,985
American Samoa	1,783	0	0	0	1,783
Arizona	177,325	127,807	9,459	89,541	(49,482)
Arkansas	215,621	35,000	5,363	92,889	82,369
California	306,910	127,000	4,201	22,338	153,371
Colorado	147,484	18,000	5,886	26,561	97,037
Connecticut	11,693	10,000	0	78	1,615
Delaware	2,052	0	0	7,749	(5,697)
District of Columbia	184	N/A	0	0	184
Florida	272,962	48,400	0	100,169	124,393
Georgia	315,780	70,000	20,765	117,959	107,056
Guam	34,489	0	8,622	0	25,867
Hawaii	11,671	0	0	8,049	3,622
Idaho	85,902	35,000	936	11,510	38,456
Illinois	239,688	87,163	18,089	92,487	41,949
Indiana	202,021	55,349	2,036	80,975	63,661
Iowa	83,509	18,972	4,972	39,878	19,687
Kansas	87,489	21,300	4,365	43,257	18,567
Kentucky	259,258	45,000	9,170	77,221	127,867
Louisiana	296,777	88,500	4,081	140,640	63,556
Maine	42,264	22,500	443	13,085	6,236
Maryland	44,411	16,667	3,447	28,732	(4,435)
Massachusetts	12,522	16,000	0	1,458	(4,936)
Michigan	368,390	67,857	12,962	212,539	75,032
Minnesota	135,984	32,917	7,318	23,907	71,842
Mississippi	268,365	47,337	8,967	70,006	142,055
Missouri	337,484	37,979	39,738	88,793	170,974
Montana	104,534	61,100	3,096	16,506	23,832
Nebraska	70,478	21,000	604	14,487	34,387
Nevada	51,689	40,187	1,563	6,426	3,513
New Hampshire	25,572	24,000	0	11,170	(9,598)

Table 2 (Continued)

New Jersey	43,324	28,216	0	0	15,108
New Mexico	114,997	40,611	8,856	40,738	24,792
New York	149,369	100,000	8,478	19,610	21,281
North Carolina	376,039	78,100	31,714	124,644	141,581
North Dakota	7,988	3,965	5,063	1,115	(2,155)
Northern Mariana Islands	10,331	N/A	0	530	9,801
Ohio	183,709	15,000	1,217	130,991	36,501
Oklahoma	150,718	20,000	18,421	45,135	67,162
Oregon	122,384	N/A	9,371	41,520	71,493
Pennsylvania	278,536	44,000	237	97,690	136,609
Puerto Rico	61,871	N/A	1	0	61,870
Rhode Island	2,309	7,500	0	3,590	(8,781)
South Carolina	119,580	31,650	19,123	67,789	1,018
South Dakota	28,397	N/A	3,562	924	23,911
Tennessee	186,394	50,000	9,390	67,067	59,937
Texas	779,378	152,000	10,236	261,534	355,608
Utah	41,535	3,080	6,794	0	31,661
Vermont	33,646	13,818	1,554	16,907	1,367
Virgin Islands	557	N/A	0	0	557
Virginia	364,156	76,873	48,909	92,509	145,865
Washington	236,535	33,000	5,654	47,274	150,607
West Virginia	271,624	20,000	11,955	107,341	132,328
Wisconsin	253,097	8,000	746	135,559	108,792
Wyoming	39,215	11,700	659	9,268	17,588
Total	8,489,371	1,947,548	412,658	2,886,526	3,222,639

Table Notes: ^a For States and other eligible entities with “N/A,” Treasury had not yet approved the state project(s) and awarded funding at the release of this report. For those states with “0” in this column, none of the awarded funding is going to last-mile broadband deployment.

^b ReConnect publicly reports the number of households—not the number of locations—that will be served by funded projects. In some cases, these projects will also service small businesses and community anchor institutions but ReConnect does not consistently report these locations. As a result, this data likely underestimates the number of locations to be served by ReConnect. Further, data presented here does not include projects that included multiple states in their location counts as there is no practical way to determine, based on public reporting, how many locations are expected to be served in each state. Specifically, there are 16 projects across the four funding rounds that reported they will provide service to 15,190 households across multiple states.

^c This column represents the remaining RDOF locations to be deployed. According to FCC published information, RDOF projects have already connected approximately 500,000 of the approximately 3.4 million funded locations. All reported “deployed” locations were subtracted from the total number of funded locations per state.



RED LIGHT REPORT

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