



The 2023 Ultimate Guide to Broadband Funding

How Municipalities Can Win Funds for Their Broadband Business

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FORGE YOUR LEGACY. CONNECT COMMUNITIES WITH THIS ONCE-IN-A-GENERATION FUNDING OPPORTUNITY.

Broadband brings vital services to your community in countless ways—and funding has never been more available than now. With broadband connectivity, you will boost your local economy, improve quality of life, and ensure that everyone is positioned to succeed in the digital age. This is your opportunity to create a legacy like none before—but funding is available for a limited time.

Obtaining the necessary funding can be difficult to navigate on your own. With so many programs and sources, it is challenging to understand the landscape, determine if you qualify, work through the application process, and then manage your award. This eBook describes the most up-to-date funding sources for broadband projects in the United States, their qualification criteria, and how to get started.

Why Now?

IT'S NOW OR NEVER. Becoming a broadband service provider (BSP) requires a lot of upfront capital. Until recently, traditional BSPs have had a stronghold on the market—deciding if and when to dip into their profits to expand or build new networks. The demand for digital equity has never been greater. This has opened the door to new funding opportunities that enable municipalities to meet the soaring demand for broadband connectivity themselves.

Today, more than 600 communities directly offer broadband services to some degree. Since 2018, municipal fiber broadband deployments have increased 500 percent. This number is expected to rise exponentially thanks to state and federal funding programs that will award \$120 billion between now and 2028 for new broadband infrastructure projects. This unprecedented level of available funding coupled with private investment has made it easier than ever for municipalities to fund new broadband services.

More than **600** communities offer broadband

\$120B
in state and federal funding between now and 2028

Municipal fiber deployments have increased **500%** since 2018

Chapter 1

THE BROADBAND INDUSTRY: YESTERDAY, TODAY, AND TOMORROW

Anyone working in the telecommunications industry can tell you that broadband access was a problem before 2020. Underserved and underrepresented regions and territories have long struggled to keep pace with the digital evolution of larger cities. When the COVID-19 pandemic hit, it soared to a crisis of epic proportions. The broadband gap became impossible to ignore.

Lack of high-speed broadband may have previously been considered a mere inconvenience—frustration would mount if you couldn't game online or stream a movie, for example. But suddenly, it shot to the top of the priority list across the country. Reliable and affordable broadband access is critical to remote work, learning, telehealth, and entertainment. These are permanent fixtures in our post-pandemic world.

To capitalize on these new opportunities, we must bridge the digital divide between the broadband haves and have-nots. Equitable access to affordable and reliable high-speed internet can eliminate some of the socioeconomic disparities that threaten the long-term viability of our communities.

RELIABLE AND AFFORDABLE BROADBAND ACCESS IS CRITICAL TO REMOTE WORK, LEARNING, TELEHEALTH, AND ENTERTAINMENT.



HOW COMMUNITIES BENEFIT FROM BROADBAND



ATTRACT NEW BUSINESS

Broadband is a key decision factor for startups and companies that are relocating or expanding into new communities.



ENABLE REMOTE WORK

48 percent of employers are embracing some form of remote work.



DEMOCRATIZE EDUCATION

Access to open education platforms, courses, and resources help people upskill.



CREATE NEW, HIGH-PAYING JOBS

Broadband helps to create additional, high-paying job opportunities in the community.



INCREASE HOME VALUES

The availability of fiber adds 3.1 percent to the value of a home.



DELIVER HEALTH EQUITY

Telehealth improves quality of care regardless of proximity to major health centers.



FOSTER SOCIAL SUPPORT

Connectivity offsets social isolation by helping people develop and maintain relationships.

Once-in-a-Generation Funding Opportunities

Unprecedented levels of funding make it easier than ever for municipalities to transform their communities—and bridge the digital divide. Here are some of the major funding programs available to municipalities. We'll take a deeper dive into each of these programs later on in the eBook. Feel free to click on each program to get there faster.



FEDERAL

Broadband Equity, Access and Deployment (BEAD)

Administered by the National Telecommunications and Information Administration (NTIA)

American Rescue Plan Act (ARPA)

As part of ARPA, the U.S. Department of the Treasury has a Capital Project Fund (CPF) that enables recipients to build and deploy broadband infrastructure, and a State and Local Fiscal Recovery Fund (SLFRF) to expand access to broadband internet.

ReConnect Loan and Grant Program

Under the Farm Bill, the U.S. Department of Agriculture (USDA) manages ReConnect, which provides loans, grants, and loan-grant combinations to recipients to invest in rural broadband infrastructure that will deliver high-speed internet service to underserved communities.

Community Connect

Community Connect is a USDA program that grants funds for broadband network builds in unserved rural, economically challenged areas that private sector providers deem economically unviable to deliver services.

Did You Know?

Federal funding is not the only option. Additional funding options are available, such as:

STATE FUNDING

Many states allocate capital funds to finance broadband infrastructure projects, in addition to tapping federal funding programs such as ARPA and the Broadband Equity, Access, and Deployment (BEAD) program. View state broadband funding map on next page.

PUBLIC / PRIVATE PARTNERSHIPS

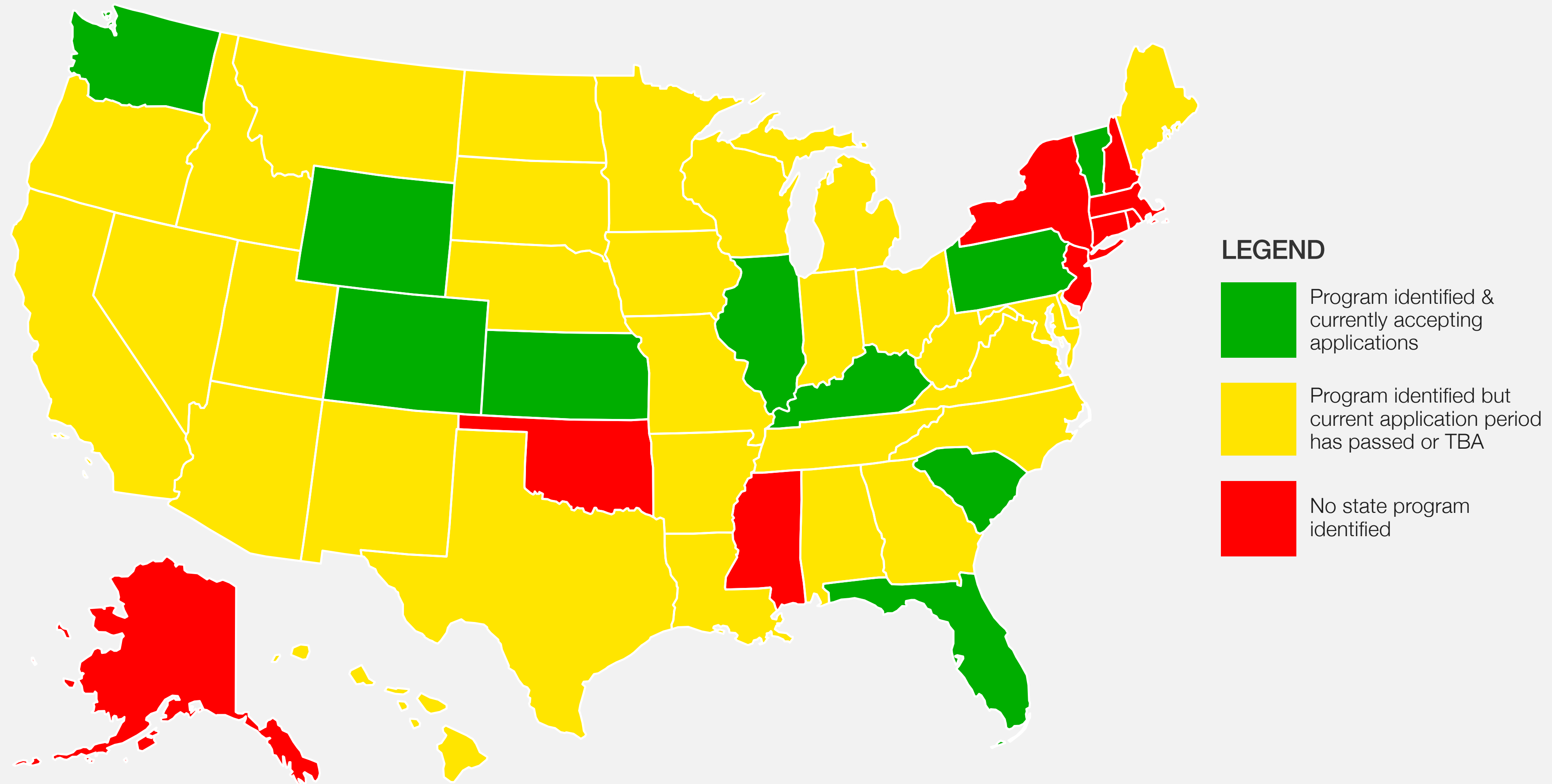
Municipalities have access to private investment vehicles such as venture capital, private equity, and private debt, which provide investors with low-risk, long-term value.

MUNICIPAL BONDS

Communities can issue municipal bonds, which are exempt from federal taxes, to fund capital expenditures such as broadband infrastructure projects.

Learn more about your state's funding options. [Book a funding consult today.](#)

US State Broadband Funding Map



What's New in 2023?

Administered by the National Telecommunications and Information Administration (NTIA), the Broadband Equity, Access and Deployment (BEAD) program has earmarked \$42.45 billion for last-mile broadband to be distributed at the state level. States and territories will receive notice of their BEAD funding allocation by June 30—so the time to plan is now. Recipients of BEAD funding will be required to participate in the Federal Communications Commission's (FCC) Affordable Connectivity Program (ACP), which provides a low-cost option for eligible households to remove affordability barriers to broadband service.

As part of the Infrastructure Investment and Jobs Act, the NTIA has also added an additional \$1 billion to the Tribal Broadband Connectivity Program. As part of the Biden-Harris Administration's Internet for All Initiative, this program offers nearly \$3 billion in grants. Of these funds, \$2 billion are made available through President Biden's Bipartisan Infrastructure Law, and \$980 million from the Consolidated Appropriations Act, 2021. The additional support will help fund more tribal applications already submitted to the NTIA.

The Biden-Harris administration released \$73 million in Affordability Connectivity Outreach Grants to help more Americans sign up for the ACP and save on monthly internet costs. The investment includes \$66 million for outreach projects that drive awareness and enrollment in the ACP. These include digital campaigns, door-to-door canvassing, phone banks, direct mail, and ACP enrollment events. The additional \$7 million in outreach grants will support two additional, one-year pilot programs to raise awareness of the ACP.



\$42.45 BILLION
for last-mile broadband

\$1 BILLION
for the Tribal Broadband
Connectivity Program

\$3 BILLION
in grants through the
Internet for All initiative

\$73 MILLION
in Affordability Connectivity
Outreach Grants

What's New in 2023?

Boosting rural broadband is a top priority for the Farm Bill, which is up for renewal later this year. As part of the Farm Bill, the USDA administers and oversees various rural broadband funding programs:

ReConnect Program

Loans, grants, and loan-grant combinations to facilitate broadband deployment in rural areas that currently do not have sufficient access to broadband.

Telecommunications Infrastructure Program

Provides financing for the construction, maintenance, improvement, and expansion of telephone service and broadband in rural areas.

Rural Broadband Program

Furnishes loans and loan guarantees to finance construction, improvement, or acquisition of facilities and equipment for broadband services in eligible areas.

Community Connect Grant Program

Helps fund broadband deployment in rural communities where it is not yet economically viable for private sector providers to deliver service.

Distance Learning and Telemedicine Program

Supports projects that promote equity and economic opportunities in rural communities, including education and health care.



Chapter 2

A DEEP DIVE INTO FUNDING OPPORTUNITIES

Let's dig deeper into the nuts and bolts of each funding program to help you determine what's best for your community.

PARTNERSHIPS MAKE POWERHOUSES

Consider Working with an Existing BSP To Streamline Your Project

Existing BSPs can be incredible partners as you embark on your broadband journey—especially when bringing connectivity to unserved or underserved areas. By combining forces, you can lean on existing BSPs for their knowledge and experience while still serving the specific needs of your area. Potential benefits include:

- ✓ Assistance with funding applications, as collaboration in the community can help with your application overall score
- ✓ Network design know-how that you can trust during the build portion of your project
- ✓ Insights and even personnel to manage the network after it's built

American Rescue Plan Act (ARPA)

As part of ARPA, the U.S. Department of the Treasury has a Capital Project Fund (CPF) that enables recipients to build and deploy broadband infrastructure and a State and Local Fiscal Recovery Fund (SLFRF) to expand access to broadband internet.

These federal funds are allocated to the states for distribution to entities with eligible broadband expansion projects. Together, these two funds will help states, territories, and tribal governments deliver affordable, reliable, high-speed internet infrastructure, as well as other connectivity projects.

★ PURPOSE

To address challenges exacerbated by the COVID-19 pandemic in rural, tribal, and low-to-moderate-income communities as they relate to broadband access to help citizens access critical services.

💰 TOTAL VALUE

\$10 billion for CPF
\$8 billion for SLFRF

✓ PROJECT CRITERIA

- Deliver symmetrical speeds of 100 Mbps or faster

ReConnect Loan and Grant Program

Under the Farm Bill, the USDA manages ReConnect, which provides loans, grants, and loan-grant combinations to recipients to invest in rural broadband infrastructure that will deliver high-speed internet service to underserved communities.

There are five different funding categories with various eligibility criteria and funding minimums and maximums. Funds can be applied to the costs of construction, to improve or acquire facilities, or to purchase equipment.

★ PURPOSE

To foster private sector investments in broadband infrastructure to deploy high-speed internet service to rural homes, businesses, and essential community facilities that support public safety, health care, schools, libraries, business and industry, and agricultural operations.

💰 TOTAL VALUE

- \$1.15 billion in Round 4 funding
- 100% grant (Native corporations, tribal governments, persistent poverty areas, and socially vulnerable communities) up to \$350 million
- 100% loan up to \$150 million
- Combo up to \$300 million
- 100% grant (with 25% match) up to \$150 million
- 100% grant (90% of proposed funded service area lacks access) up to \$200 million

✔ PROJECT CRITERIA

- Service an area where 50 percent of households lack sufficient access to broadband (applicable to four funding categories)
- Service an area where 90 percent of households lack sufficient access to broadband (applicable to one funding category)
- Deliver symmetrical speeds of 100 Mbps or faster

Community Connect

Another USDA program, Community Connect grants fund broadband network builds in unserved rural, economically challenged areas that private sector providers deem economically unviable to deliver services.

Recipients can use funds to construct, acquire, lease facilities, spectrum, land, or buildings to deploy broadband service to all residential and business customers within the proposed service area. They must also deliver service free of charge for two years to essential community facilities such as schools, fire stations, libraries, and public safety stations. Up to 10 percent of the grant can be used to improve, expand, build, or buy a community center that provides online access to the public.

★ PURPOSE

To provide financial assistance to eligible applicants that will provide broadband service that fosters economic growth and delivers enhanced educational, health care, and public safety benefits in rural communities.

💰 TOTAL VALUE

\$79 million

✔ PROJECT CRITERIA

- Service a rural area that lacks broadband speed of at least 25 Mbps downstream and 3 Mbps upstream

Broadband Equity, Access, and Deployment (BEAD)

BEAD is a federal grant program funded by the Bipartisan Infrastructure Law that aims to get all Americans online. By funding partnerships between states or territories, communities, and stakeholders, BEAD invests in infrastructure where it's most needed to increase adoption of high-speed internet.

The funds can be used for a number of eligible activities. These include research and training, deploying or upgrading internet access in unserved or underserved areas, installing service in multi-unit residences, launching digital equity programs, and more.

★ PURPOSE

To expand high-speed internet access by funding planning, infrastructure deployment, and adoption programs in all states and territories.

💰 TOTAL VALUE

\$42.5 billion

✓ PROJECT CRITERIA

- Service an area that is completely unserved or has access speeds of under 25 Mbps downstream and 3 Mbps upstream
- Service an underserved location that has access speeds of under 100 Mbps downstream and 20 Mbps upstream

Municipal Bonds

Contrary to popular belief, municipalities do not need to raise taxes to finance their network build. Communities can issue municipal bonds, which are exempt from federal taxes to fund capital expenditures such as broadband infrastructure projects. Municipal bonds can cover 100 percent of broadband construction costs.

Many municipalities fund their broadband projects through municipal bonds. Bonds are issued to private investors and repaid over many years with revenue from the network. With fewer than 2 percent of municipalities defaulting on bonds, they are a very viable means to bring community broadband infrastructure projects to fruition.

★ PURPOSE

To buy, build, or renovate new broadband infrastructure or facilities that will facilitate the delivery of broadband services to connect communities.

💰 TOTAL VALUE

Varies, depending on the municipality

✓ PROJECT CRITERIA

- Any net-new network builds or projects that will revitalize and accelerate existing fiber networks

Public / Private Partnerships

Municipalities have access to private investment vehicles such as venture capital, private equity, and private debt, which provide investors with low-risk, long-term value. Private funding for broadband can complement public funding or cover government funding gaps, allowing you to scale quickly and accelerate growth.

The important thing to remember is that government funding and private capital are not an either/or proposition. Rather, think of private funding as another tool in your funding tool belt—especially as timelines for government funding may not align with your plans. Private investors can also provide ongoing support for your broadband operations.

★ PURPOSE

To supplement government funding and accelerate the growth of rural broadband infrastructure, offering investors a low-risk, strategic partnership that yields long-term value.

💰 TOTAL VALUE

\$3.2 billion +

✓ PROJECT CRITERIA

- Any net-new network builds or projects that will revitalize and accelerate existing fiber networks

State Funding

In addition to tapping federal funding programs such as ARPA and BEAD, many states allocate capital funds to finance broadband infrastructure projects. Examples include the Border-to-Border Fund account in Minnesota and the Growing Rural Economies with Access to Technology (GREAT) program in North Carolina.

While their overarching goal is similar, state grant programs can differ. Variables such as funding amounts, minimum speeds, eligibility, and other goals depend on individual states. In some cases, states have specific requirements while others have more flexibility. States are currently developing their five-year action plans and determining how they're going to evaluate unserved and underserved areas.

★ PURPOSE

To increase the availability and adoption of broadband deployments in communities that lack sufficient access.

💰 TOTAL VALUE

Varies, depending on the state and the program

✓ PROJECT CRITERIA

- Specifics vary, but projects typically involve servicing unserved and underserved areas.

AM I A GOOD FUNDING CANDIDATE?

Decision makers consider a range of factors when it comes to determining how funds will be awarded. It is important to understand specific eligibility requirements for each opportunity and strategies to help you maximize points on your application. In addition to speed levels, there may be financial feasibility and technical capability thresholds to meet, as well as standards for infrastructure resiliency. For example, to secure middle mile program funding from the NTIA, applicants must demonstrate how their project will withstand climate-related events such as storms.

Here are a few ways you can maximize your chances of securing a slice of the funding pie.

PARTICIPATE IN THE ACP

Many funding opportunities require candidates to participate in the FCC's ACP to remove affordability barriers to broadband service.

TAP THE EXPERTISE OF EXTERNAL PARTNERS

They are well versed in the broadband industry and can guide you through eligibility and funding applications.

PROVIDE SPEED

Focus on unserved locations lacking service of at least 25 Mbps downstream and 3 Mbps upstream, or underserved locations lacking service of at least 100 Mbps downstream and 20 Mbps upstream, with a network that can scale to deliver symmetrical speeds of 100 Mbps or faster.

SERVICE AN UNFUNDED AREA

Funding mechanisms will not duplicate funding for locations previously funded by other state or federal programs.

THINK ABOUT MATCH REQUIREMENTS

Many programs require providers to bring a match to the table including in-kind matches and require the match to be spent before authorizing grant funds.

CONSIDER RURALITY

The USDA ReConnect program awards critical points for applicants serving the least dense population areas, and locations at least 100 miles from a city or town with a population greater than 50,000 people.



HOW TO START YOUR ONCE-IN-A-GENERATION BROADBAND PROJECT

Begin your broadband funding journey with a feasibility study—a thorough pre-evaluation of the project and service area. The resulting extensive report will help you determine the viability of your broadband business case. To show the value and viability of your network, you will analyze the following elements in your feasibility study.

4 ELEMENTS YOU NEED TO BUILD YOUR FEASIBILITY STUDY



MARKET RESEARCH AND COMMUNITY NEEDS

Highlight the broadband options that are currently available in the area, service gaps, and outstanding needs. If you're planning to build a broadband network in an unserved or underserved area, this will be straightforward since the options will be limited, but it's still important to understand the big picture in your service area.



EXISTING INFRASTRUCTURE AUDIT

Determine what communications infrastructure is already in place and/or mapped out. If an audit doesn't exist, you'll need to complete one to understand what's available in terms of physical cables, poles, and equipment, and how the infrastructure has been laid out in the area.



NETWORK DESIGN, TECHNOLOGY, AND COSTS

These should reflect the type of network you intend to build. For example, if you're planning to build a fiber-optic network, you need to explain the technology and show what the network layout could look like. At this stage, it would be more of a conceptual design versus an in-depth blueprint. The estimated costs and timelines for the build are often included here.



FINANCIAL BUSINESS CASE

Provide a model that accounts for the estimated costs to build and operate the network, as well as potential revenue over time. While the financial model is an estimate that includes many assumptions, the information in the financial business case is important to understand the level of required investment and to demonstrate the viability of your plan.

Armed with this information, you will understand the level of funding you need and be equipped to start exploring options. It can take between two and four months to complete a feasibility study, depending on the size of the service area, the complexity of the environment, the services required, and the availability of geographical maps and analysis, and location-specific information.

Compiling a feasibility study is a lot of work, requiring extensive research as well as technical and financial expertise. While there is some information you can gather independently, it's likely you'll need support from consultants and the community.

It's a good idea to engage with engineering firms and consultants. They have a wealth of experience and knowledge you can tap about developing fiber-based broadband networks. And of course, it's always important to involve community members to find out their specific needs through surveys and/or meetings. It's also a wonderful opportunity to educate them about the importance of broadband.

Your feasibility study will also help determine the appropriate funding programs for your broadband project. With so many options, the feasibility study can help you narrow down the options based on their criteria and the specifics of your project.

**2 to 4
MONTHS**

to complete a
feasibility study

ENGAGE

- ✓ engineering firms
- ✓ consultants
- ✓ the community



**Determine funding
programs and narrow
down your options**

CONCLUSION

Everyone, regardless of where they live, deserves connectivity. It's no longer a luxury—it's a basic human right.

Unprecedented levels of broadband funding can help municipalities build thriving communities that will drive economic and educational opportunities, as well as well-being and social supports for their citizens. Billions of dollars in federal, state, and local funding, combined with private investment, can narrow the digital divide, and reduce the socioeconomic disparities that threaten the long-term viability of rural America.

But don't delay—it's critical to prepare for upcoming funding waves now. States are currently developing their five-year action plans and you don't want to miss out on this once-in-a-lifetime wave of funds. With the right preparation and partnerships, you can maximize your chances for funding success.

Whether you're looking to launch a new broadband service or expand your existing network to unserved or underserved customers in 2023, Calix can help you navigate the funding landscape—from researching opportunities and understanding eligibility requirements to meeting timelines.

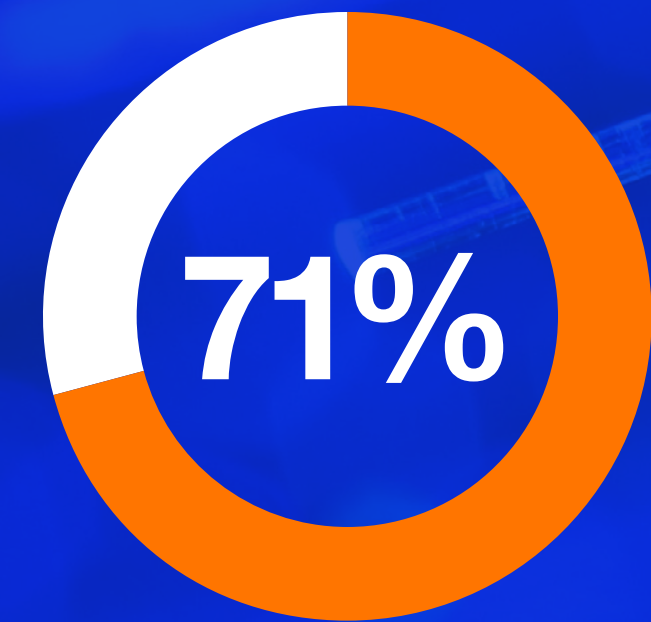
Calix and our partners offer a portfolio of services that will help speed your time to market and return on investment as you plan and deploy new services for your community. In fact, 71 percent of municipalities deploying broadband services work with Calix. From Beverly Hills, California to Highland, Illinois, and to Concord, Massachusetts—our broadband success stories are growing.

To help you navigate the funding landscape, [book a funding consultation today.](#)

SIGN UP NOW

Connectivity is no longer a luxury.

IT'S A BASIC HUMAN RIGHT.



Municipalities deploying broadband services who work with Calix

REDUCE THE SOCIOECONOMIC DISPARITIES THAT THREATEN THE LONG-TERM VIABILITY OF RURAL AMERICA



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