COMMUNITY GUIDE TO BROADBAND

INTRODUCTION
The purpose of the guide

Thank you for your interest in learning about Broadband connectivity using this Guide to Broadband in your community. If you are reading this, you've developed an interest in how to deploy a faster, more extensive network in your community. Whether your community has one to several internet service providers (ISP) or lacks broadband, you are exploring ways to get service or better service to homes, community anchor institutions (like schools or hospitals), municipal assets, businesses or some combination of constituencies.

This guide is an attempt to answer the questions that communities have been asking year after year. There are three sections: Education, Process and Funding. There is also an appendix of additional resources.

The Education Section allows the reader to obtain a better understanding of the various technologies used to deliver broadband, and helps communities explain to their citizens the economic and social benefits associated with improved broadband.

Should a community be interested in planning and implementing a community broadband project, the Guide's second part describes a process that helps communities prepare for that work.

The Funding Section outlines the in-state grants that are available, including the pre-certification check list for new Broadband Planning Grants through the ConnectME Authority. Additional national and state resources are also listed to help communities evaluate other potential funding sources.

Lastly, a number of communities in Maine have implemented or are planning to deploy broadband networks to greatly improve internet connectivity. You'll find contact information for these communities should you wish to reach out and hear directly from them about their experience with community-driven broadband improvements. This appendix also includes a number of other resources and reference materials to help you consider the options that would work best for your community.

The bottom line – this Guide will give communities and citizens:

1. A basic understanding of Broadband and how it can be leveraged to meet economic and social goals,
2. the tools necessary to successfully plan the pursuit of broadband improvements, and
3. the resources to explore options for funding broadband improvements.

Still interested? Read on.

PART I: EDUCATION

What is Broadband?

Broadband is high-speed, reliable internet access, and is measured in download and upload speeds. The download speed refers to how quickly you can "download" something from the Internet, such as a book or movie. The upload speed refers to how quickly you can "upload" something from your computer to the internet, such as photos or work documents.

Access to broadband opens up many possibilities such as voice services, high-speed video and data services, and other activities not possible at download and upload speeds available in many rural communities across the state. Most of Maine does not currently meet either the federal or state definition of Broadband.

The Federal Communications Commission (FCC) recently changed its definition of broadband to any connection that provides 25 megabits per second (mbps) for downloads and 4 mbps for uploads. The State of Maine recently defined broadband as a symmetrical (same speed for downloads and uploads) connection of 10 Mbps.

Access to broadband opens up many possibilities such as voice services, high-speed video and data services, and other activities not available at download and upload speeds available in many rural communities across the state. Most of Maine does not currently meet either the federal or state's new definitions of Broadband. Expanding or extending broadband both improves connectivity (getting internet access to more people) and improves speeds and reliability (increases network capacity). Improving broadband across the state is essential to sustaining Maine's communities and economy into the future.

What can people and businesses do with faster, more reliable internet connections?

The FCC has created a chart that shows the kind of connectivity needed for light, moderate and heavy use, based on the types of personal and business applications and the number of potential users per household.

Use the chart below to compare minimum download speeds needed for light, moderate and high household use with one, two, three or four devices at a time (such as a laptop, tablet or game console). You can also compare typical online activities with the minimum speeds needed for adequate performance for each application. For more information on broadband speeds, see the FCC's Measuring Broadband America report at https://www.fcc.gov/measuring-broadband-america.

Table 1. Household Broadband Guide

	Light Use (Basic functions only: email, web surfing, basic streaming video)	**Moderate Use** (Basic functions plus *one* high-demand application: streaming HD, video conferencing, OR online gaming)	**High Use** (Basic functions plus *more than one* high demand application running at the same time)
1 user on 1 device (e.g., laptop, tablet, or game console)	Basic	Basic	Medium
2 users or devices at a time	Basic	Basic	Medium/Advanced
3 users or devices at a time	Basic	Basic/Medium	Advanced
4 users or devices at a time	Basic/Medium	Medium	Advanced

Basic Service = 1 to 2 Mbps
Medium Service = 6 to 15 Mbps
Advanced Service = More than 15 Mbps

What is the technology that can provide internet access?

Technology that provides internet access generally falls into two categories, wired and wireless. Wireless providers are cellular companies, fixed wireless providers and satellite technologies, which deliver their internet signal over land and water. Wired providers include DSL providers that deliver the internet connection through copper wiring. Cable companies deliver the internet through cable lines that also can deliver your television and phone signal.

Fiber optic technology tends to be considered the gold standard for broadband delivery and has attributes that overcome the various shortcomings of other types of Internet delivery. In Maine, the so-called "Three-Ring Binder" is a high-capacity middle-mile dark fiber network that consists of three rings of fiber throughout Maine.

The Three-Ring Binder was not designed to run by every house in Maine. Depending how far you are from this network, connecting to it can be cost-prohibitive. For rural Maine, the Three-Ring Binder is the first step in helping communities get connected to high-speed, reliable internet that is increasingly important to everyday life. Communities like South Portland and Rockport are connected to this network and can deliver up to a gigabit per second speed (1000 Mbps).

Why won't carriers build it now if people need or want it?

There are a number of factors why carriers may be reluctant to build more robust networks, and the primary factors are the cost of buildout and the lack of demand. For those carriers that have existing infrastructure and are delivering service, the incentive to switch to a different technology in order to deliver a larger or different service is often difficult to justify. For areas without broadband, the cost of building fiber ($25,000 per mile), plus the fiber to connect each home ($2,000 per home) does not create a reasonable return on investment. In addition, a buildout is often economically prohibitive because of the number of potential customers per mile of a buildout is so low; this is just the rural nature of Maine.

Disperse populations also affect the potential demand a carrier can expect from a build out; this is called the "take rate." The take rate is the estimation of the number of homes/premises that would subscribe to a new service if it was offered. Many factors affect the take rate, including the age and income of potential customers as well as the presence of competing services. In many parts of Maine, the take rate does not justify carriers providing service that could take 10-20 years to recover their initial investment. There are some exceptions to this; also, many of the carriers have worked closely with the ConnectME Authority to use a state subsidy in order to build out network capacity to places where broadband was unavailable.

Most recently, a handful of communities in Maine and many more across the United States have taken matters into their own hands to plan, fund, manage or even own networks, using different funding sources to subsidize build outs for their communities. Not all of the national examples are applicable to Maine, as they tend to be from more urban areas with larger concentrations of businesses and residences, which help make the return on investment much more attractive to Internet providers. Nevertheless, there are important lessons learned from the communities across the U.S. and in Maine that can help you understand the rewards and challenges of undertaking a community Broadband project.

Why should communities seek broadband improvements?

What will your community gain from a high-capacity, high speed broadband network? The top benefit of high-speed, reliable internet access is greater economic development opportunities. For communities without internet access, broadband can help attract and keep young families and businesses, which are essential for sustaining rural communities into the future. Maine is renowned for its environmental quality; people want to live here. Unfortunately, there are no shortages of complaints around declining population and limited economic growth. In order for our young people to get the education and skills to enter an increasingly competitive workforce, they need to be connected with the world outside this state, even those who are studying within the state. For Maine businesses to be successful, owners need to be able to reach and expand their markets beyond their next door neighbors. Broadband in one major tool to strengthening Maine's economy and quality of life.

Communities with more broadband are more productive. Often is the argument that faster internet doesn't have much benefit after a certain speed. Still there are activities that require greater internet speeds, such as uploading very large documents or datasets, as required by many work-at-home jobs and small businesses in the medical, architecture and other industries. A study conducted by the

Analysis Group[1] concluded that the increased speed from 100mbps to one gigabit increases the GDP by 1.1 percent. While this study only considered the factors of broadband availability and the unemployment rate, it is an example of the potential benefit of faster speeds.

Access to broadband increases home values. A University of Colorado Boulder study[2] found that single-family homes with access to a one gigabit-per-second connection fetch a price that is about 1.8 percent more those with access to 100mbps. Perhaps more importantly, benefits other than speed, such as reliability of service and marketing effects, also impact home values. When controlling for broadband speed, just the presence of fiber was found to increase the price by 1.3 percent. The combined effect of speed and fiber equates to a 3.1 percent increase on a home's value.

Broadband infrastructure leads to increased jobs. In publishing a summary of studies examining the economic benefits of broadband, the Maine Heritage Policy Center[3] concluded that broadband is like a highway, providing a way for people to connect and for commerce to occur. The study highlighted the economic benefit felt in Kentucky with a 7% increase in broadband adoption, finding that Maine could create or save 10,577 jobs. Broadband creates opportunities to work from home, or to grow a small business through internet and video conferencing technologies. In this way, broadband allows more people to work where they live.

Other important benefits that Maine communities have identified include increased access to healthcare and telehealth opportunities, increased access to education through long distance educational opportunities and digital literacy education, improved municipal and emergency services, and ability to increase tourism.

PART II: PROCESS

One of the often repeated questions is how do I start? Typically one or a few citizens start by forming a small group of committed residents, business-owners and/or local officials. We encourage you to expand this group to create momentum and consensus for action. By starting out with a strong, diverse group you are more likely than not to successfully in creating a plan that will be accepted by the larger community. Early stage organizing is an essential ingredient in order to find funding, whether at the state or federal level.

STEP 1: **Build "a coalition of the willing"**
- Identify stakeholders who need to be represented and partners- who needs to be in the room?
- Create a committee

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[1] Analysis Group is a consulting group that conducted this study for FTTH (see footnote on Fiber to the Home Council Americas).

[2] This study was funded by the Fiber to the Home (FTTH) Council Americas, a non-profit association consisting of companies and organizations involved in FTTH networks. Its mission is to accelerate deployment of all-fiber access networks by demonstrating how fiber-enabled applications and solutions create value for service providers and their customers, promote economic development and enhance quality of life.

[3] This report was published by the Maine Heritage Policy Center, which formulates and promotes conservative public policies.

- ✓ School officials
- ✓ Hospital or Health care facility and health care providers
- ✓ Municipal services (fire and police)
- ✓ Major employers
- ✓ Main Street group(s)
- ✓ Small businesses, including tourism businesses
- ✓ Interested citizens

- Educate community and local officials
- Build consensus through board of selectmen or town/city council
- Consider regional approach and bring in other communities and major partners

During the building of the committee, ongoing discussions will reveal what the interest is of the community. For some it will be about the business community and economic development, for others it might be about serving the unserved or underserved and still others it will be connecting municipal services… the point is that there will be a diversity of thinking about what is needed. There are many benefits to improving broadband, and these benefits would be prioritized differently among communities. Step 2 helps a community develop concrete goals. These goals may evolve as more information on cost, availability and other limitations is learned. Stating the goals is a starting point, and the community can decide later whether or not to bring in a professional to help refine the goals.

STEP 2: **Focus areas for communities to think about**.
 The first question is how is your community going to use broadband? Your community's goals for broadband will help answer the questions on speed, access and capacity. Do you want to help seniors stay in their homes? Attract new people to town? Help small businesses grow? The answer maybe yes to all of these, but identifying why the community wants to expand its broadband capacity is a critical question that helps guide the direction of the community's activities. Other questions the group should consider are:

- What does your community need or want for connectivity?
- Is what you have now adequate? Why not?
- Map out anchor institutions such as schools, libraries, health care facilities, government agencies, emergency responders, community centers and organizations, and major transportation centers.
    - What are their needs?
- Identify priority commercial and industrial areas, such as a downtown, commercial section, industrial park, and major employers.
    - Are these areas of your community served? If so, what speeds and type of service is available?
- Map the community's residential neighborhoods and provide information on existing density and future development plans.
    - Do these areas need to be served?
    - Do residents want more choices?

The community must decide how involved it wants to be in a broadband improvement project. There are costs and benefits to any approach, and the characteristics and goals of a community may determine which costs can be incurred and which benefits are necessary for a successful project. Working with your current provider, you get the potential benefit of leveraging current operational infrastructure, which can bring down cost and reduce risks; however, the community may have little negotiating power and providers can be reluctant to participate without a clear return on investment for infrastructure upgrades.

Some communities have developed an open access approach, where they (the community) works with a company to build out fiber to provide a network that will meet the needs of the community as defined in their process. The advantage here is that the community can strongly influence the choice of operator or providers on the network. Especially if the network is open-access, allowing any provider to offer internet services, this can induce competition and bring down costs to internet customers; however, the upfront cost for a buildout and continued management can be substantial.

STEP 3: **How should communities evaluate community-driven broadband projects?**
- o What is the role of the municipality?
- o What does "open access" mean?
- o Communications strategy
- o Compile basic description of current internet services and technology, including use of ConnectME mapping tools

Along the way, communities may need to seek different kinds of professional assistance. Interviewing potential consultants or professionals can help you determine what assistance you might need and when in the process. Many of these professionals in Maine are more than willing to come to your community to discuss your goals and your current internet connectivity.

Consultants can compile or develop:
- accurate information on technology assets in your community
- a gap analysis of where broadband is unavailable
- alternative operational models that might meet your goals or cost-effective solutions
- cost estimates for different solutions and operation models
- community procedures, permitting, and ordinances, as potential obstacles
- applications for state or federal funding
- Community Technology Plans that set the community's strategies for improvements

Finding the right partner

A partner can add value by working with your committee to assess community procedures, permitting, and ordinances that may potentially increase costs or prohibit buildout, and evaluate your assets and costs to accomplish your goals. Some partners are agnostic on what types of technology a community might consider; others have expertise with fiber, fixed wireless or DSL. Still others have expertise with such things as community organizing, digital literacy programs and downtown hotspots that might be important to some communities. When choosing a partner, often it becomes about the "right fit" and

thoughtful consideration should be given.   Most consultants are willing, free of charge, to come out and have a conversation about their credentials and approach to helping the community get a better understanding of their Broadband connectivity situation.

 Once you have done your due diligence, if you are considering applying for state or federal money, you would partner with the consultant and/or provider to apply for a state planning grant or other types of federal and state monies to help you move your process forward.

You can look to the ConnectME Authority for assistance in identifying consultants or other professionals. Some are agnostic on what types of technology a community might consider; others have expertise with fiber, fixed wireless or DSL. You might chose a professional with expertise in community organizing, digital literacy programs or downtown hotspots. When choosing a partner, often it becomes about the "right fit" and thoughtful consideration should be given.

Once you are at a point of know what you need from a consultant or other professional, you should consider making a Request for Proposals. This process allows you to spell out specifically what you expect from a partner. It also allows several potential providers to respond to the same questions. Your community can then compare and contrast the proposals and pick the best fit for your community.

STEP 4: **Identify any professional assistance needed.**

- When should a community engage professional assistance?
- What do you need to know and when?

PART III: FUNDING

In-State Grants

In Maine, the ConnectME Authority provides grants for Broadband Infrastructure Projects. [ADD HYPERLINK, WHICH WILL BE KNEW ONCE THE WEBSITE IS REDESIGNED FOR TWO GRANTING OPPORTUNITIES] There are multiple action steps that must be taken prior to submitting an application. Previously, these grants have been to provide broadband access to unserved communities. Recently, the definition of an unserved community was changed, to one that has connectivity failing to provide a minimum symmetrical connection of 10Mbps/10Mbps upload and download speeds. [ADD THE ELIGIBILITY/TARGET GUIDELINES FOR THESE GRANTS MOVING FORWARD. ADD REFERENCE TO THE BROADBAND AVAILIABILITY MAPS IF APPLICABLE, SIMILAR TO THE REFERENCE WITH LINKS BELOW]

Starting in 2016, the ConnectME Authority will also offer planning grants to communities that go through a pre-certification process. The pre-certification process is the gateway to be eligible for planning grants for local or regional economic programs to expand Broadband in unserved and underserved communities in Maine. The current definition of an unserved community is having connectivity that does not provide for a minimum symmetrical connection of 10Mbps/10Mbps upload and download speeds. Currently, close to 80% of Maine would be considered unserved under this new definition. If you are interested in determining your community's eligibility, visit the Broadband Availability Maps .

To demonstration pre-certification for a planning grant you must complete and submit the [checklist below to the ConnectME Authority.](#)

1. Create a Community Broadband Team

- Provide list of members, including name and title:
- Must include at least one representative from municipal government for each community seeking certification
- If it is known that a non-profit or economic development entity will ultimately be seeking a grant using this precertification, should include one member of that non-profit
- Members could include residents and representatives with experience in health care, business, and education.
- Must designate single point person for communications with ConnectME for certification process, provide email address to ConnectME.

2. Hold at least one Community Broadband Meeting

- Send emails to broadband providers currently serving your community and invite them to the community meeting.
- Share results of ConnectME Mapping for this community.
- Questions for attendees:
- Which providers are currently serving your community?
- Which providers attended your meeting?
- How do the mapping results compare with members' actual experiences?
- Does existing broadband access meet your needs?
- If it is inadequate in what ways does it fall short?
- If you have broadband, how do you use it now?
- Provide documentation showing meeting dates, notes, agenda and number of attendees, emails to providers and responses to the questions above.
- [ConnectME may need to provide guidance/suggestions on how address areas of this section]

3. Identify Key Documents/Existing Efforts

- Does the municipality use broadband to deliver municipal services? Describe the services, and how broadband is used to deliver these services. (e.g., town office has a broadband connection it uses to submit information to state government, police department uses broadband to communicate with state or federal databases or assessors' office make access to property records and maps available to the general public)
- Is there local or regional economic development plans in which broadband could play a role? If so, provide a list of these documents.
- Does the town have a cable franchise agreement?
- Are there any on-going community projects focusing on the digital divide or information technology (public access through schools or libraries, training, improving access to broadband, etc.)?
- Is there a TIFF or other economic development grant for all or part of the area to be served?
- Does the town have a municipal electric company? If not, what electric utilities serve the area?
- [ConnectME may need to provide guidance/suggestions on how address areas of this section]

4. Identify potential Community Anchor Institutions

- Provide a list of potential community anchor institutions.
- Community anchor institutions are entities such as schools, libraries, hospitals and other medical providers, public safety entities, institutions of higher education. Anchor institutions can also be community support organizations that facilitate greater use of broadband by vulnerable populations, including low-income, the unemployed, and the aged.
- Provide a list of commercial institutions that could benefit from lower cost, higher bandwidth, and/or improved reliability of broadband.

5. Create a Vision Statement

- A Vision Statement is created by Community Broadband Team with input from public at the Community Broadband Meeting, with the goal to take a first step toward being able to set a direction for the community's future broadband efforts.
- The statement should describe the role broadband would play in this community's future, using input from the other steps in the precertification process.
- Identify specific priority areas (e.g., connecting community anchor institutions, ensuring older citizens can age in place, closing the "homework gap", providing affordable high speed connections to a business park).
- Explain how this effort conforms to other planning documents/published visioning efforts on other issues in your community.

In-State Financing

Finance Authority of Maine at http://www.famemaine.com/business/ provides financing mechanisms to businesses that may partner with communities on broadband projects.

Maine Municipal Bond Bank at http://www.mainebondbank.com/ provides assistance with taxed and tax-exempt bonds, providing access to low-cost capital funds.
- Tax-exempt bonds: Toni at tir@mmbb.com
- Taxed bonds: http://www.mainebondbank.com/BondCounsel.aspx

National-Level Grants and Loans

This is by no means comprehensive, and resources that are available can change. These resources can help communities think about how to fund expansion of Broadband connectivity in their municipality or region.

American Library Association Loleta D. Fyan Grant at http://www.ala.org/awardsgrants/awards/154/apply provides for the development and improvement of public libraries and the services they provide.
- Annual deadline around January 10
- Preference for projects that can be completed within one year

American Medical Association Healthy Living Grant at http://www.ama-assn.org/ama/pub/about-ama/ama-foundation/our-programs/public-health/healthy-living-grants.page? provide for school and community-based solutions to behavioral health challenges.

- Application window opens in June
- Specific focus area may change year to year

FCC Rural Health Care Program including the Healthcare Connect Fund at http://www.usac.org/rhc/healthcare-connect/getting-started/default.aspx provides for broadband services expanding healthcare access, including infrastructure designs.
- Application window January-June
- Matching funds of at least 35% required, but may be from federal or state funding

FCC Schools and Libraries Program (E-Rate) at http://www.usac.org/sl/about/getting-started/default.aspx provides for broadband connections at schools and libraries.
- A very complex application process
- Matching funds of 10% to 80% required

Institute of Museum and Library Services National Leadership Grants at https://www.imls.gov/grants/available/national-leadership-grants-libraries provide for national digital platform to move library services forward.
- Application window December-February
- Eligibility criteria for libraries

National Network of Libraries of Medicine Express Outreach Awards at http://nnlm.gov/sites/default/files/migrated/file/3a9220009f6c57f04e57aacb38660f2a.pdf provide a variety of grants related to broadening access to health information.
- Inquiry deadline in November and application deadline in December
- Funding cycle includes 6-month application process followed by 11-month implementation

National Network of Libraries of Medicine Health Information Outreach Funding at http://nnlm.gov/sites/default/files/migrated/file/1dec9e6e6b795e3a83b4daa796232f56.pdf provides
- Inquiry deadline in November and application deadline in December
- Funding cycle includes 6-month application process followed by 11-month implementation

Northern Forest Center Northern Border Regional Commission Grants at https://northernforest.org/programs/regional-strategy/northern-border-regional-commission provide
- Application window March-May
- Some Maine Counties are not eligible

US Department of Agriculture Community Connect Grants at http://www.rd.usda.gov/programs-services/community-connect-grants provide for the construction or leasing of land and/or buildings used to deploy broadband services, including public libraries.
- Application window December-February with pre-application registration requirements
- Matching funds of at least 15% from non-federal sources required

US Department of Agriculture [Distance Learning and Telemedicine Grants](http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants) at
http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants provide for
acquisition of eligible capital assets, including inside wiring/infrastructure only.
- Application window May-July
- Matching funds of at least 15% from non-federal sources required

US Department of Agriculture [Farm Bill Broadband Loans and Loan Guarantees](http://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees) at
http://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees provide for
facilities required to provide broadband services.
- Application window July-September
- Eligible areas are mapped

US Department of Agriculture [Rural Economic Development Loan and Grant Program](http://www.rd.usda.gov/programs-services/rural-economic-development-loan-grant-program) at
http://www.rd.usda.gov/programs-services/rural-economic-development-loan-grant-program provides
for facilities, advanced telecommunications and equipment for medical care, education or job training
purposes; for community facility projects; or for project feasibility studies.
- Applications reviewed monthly, deadline last day of the prior month
- Very restrictive eligibility

US Department of Agriculture [Telecommunications Infrastructure Loans and Loan Guarantees](http://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees) at
http://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees
provide for constructing, expanding or improving broadband.
- Applications accepted year-round
- Rural eligibility requirements

US Department of Education [Special Education Grants](http://www2.ed.gov/programs/oseptms/index.html) at
http://www2.ed.gov/programs/oseptms/index.html provide a variety of grant opportunities for
educational technology, media, and materials for individuals with disabilities.
- Various application windows and generally a complex application process
- Eligibility requirements may vary

US Department of Housing and Urban Development [Choice Neighborhoods Grants](http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/cn) at
http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/cn
provide for development of comprehensive neighborhood revitalization plans and implementation.
- Application deadlines August and February
- Housing and Urban Development program eligibility requirements

US Economic Development Administration [Funding Opportunities](http://www.eda.gov/funding-opportunities/) at http://www.eda.gov/funding-opportunities/ provide for implementation of economic development strategies.
- Application deadline June
- Matching funds of at least 50% required generally

US Health Resources and Services Administration [Rural Health Care Services Outreach Grants](#) at http://www.hrsa.gov/ruralhealth/about/community/careservicesoutreach.html provide for health services delivery activity, including telehealth, that does not involve inpatient care.
- Application cycle is two years, and window opens summer/fall
- Matching funds of at least 50% required generally

US Health Resources and Services Administration [Small Health Care Provider Quality Improvement Grant](#) at http://www.hrsa.gov/ruralhealth/about/community/smallhealthcare.html provides for implementing quality improvement activities, including telehealth.
- Application window opens winter with start date in August
- Rural eligibility requirements

US Health Resources and Services Administration [Telehealth Grant Programs](#) at http://www.hrsa.gov/ruralhealth/about/telehealth/ provide for improving healthcare services in rural communities.
- Variety of grants with varying application guidelines
- May need to connect with state officials and/or prior recipients

Appendix: Resource and Reference Material

ConnectME Authority
- Existing broadband services in your municipality:
  www.maine.gov/connectme/find_options/index.shtml
- For more assistance: http://www.maine.gov/connectme/about/contact.shtml

Maine Broadband Coalition is an informal federation of public, private, and nonprofit sector individuals who assemble information for making the best choices about building a robust and productive information technology infrastructure. www.mainebroadbandcoalition.org

Other broadband guides for communities:
- NTIA's Introduction to public-private partnerships
  www.ntia.doc.gov/files/ntia/publications/ntia_ppp_010515.pdf
- NTIA's Guide to federal funding of broadband projects
  www.ntia.doc.gov/report/2015/broadbandusa-guide-federal-funding-broadband-projects
- CTC Technology & Energy's Technical Strategies
  www.ctcnet.us/wp-content/uploads/2014/01/GigabitCommunities.pdf
- Gig.U's Guide for community leaders http://www.gig-u.org/cms/assets/uploads/2015/07/Val-NexGen_design_7.9_v2.pdf
- GWI's Guide to Municipal Gigibit Networks
  http://offers.gwi.net/community-gigabit-roadmap
- Nebraska Broadband Initiative's Guide to Leveraging Broadband in Your Community
  http://nitc.nebraska.gov/community_council/meetings/documents/2014Aug25/Workbook.pdf
- Next Century Cities' Policy Agenda for Broadband Stakeholders
  http://nextcenturycities.org/connecting-21st-century-communities-a-policy-agenda-for-broadband-stakeholders/

Maine Office of the Public Advocate publishes the Ratewatcher Telecom Guide.
www.maine.gov/meopa/

Links to regional planning commissions and councils of governments in Maine
www.maine.gov/dacf/municipalplanning/technical/regional_council.shtml

National Telecommunications and Information Administration advises the President and runs programs focused on telecommunications and information policy issues:
http://www.ntia.doc.gov/category/broadband

Next Century Cities is a project of the nonprofit New Venture Fund that supports communities and their elected leaders as they seek access to fast, affordable, and reliable Internet: www.nextcenturycities.org

Institute For Local Self-Reliance provides innovative strategies, working models and timely information to support environmentally sound and equitable community development.
- Broadband 101 terminology and technology fact sheet:
  www.ilsr.org/wp-content/uploads/2013/03/fact-sheet-bb-1011.pdf
- Additional fact sheets: www.muninetworks.org/fact-sheets

Fiber to the Home Council Americas is a non-profit association of companies and organizations providing fiber connection services and products, which aims to accelerate deployment of all-fiber access networks. http://www.ftthcouncil.org/

Broadband Communities Magazine has chronicled case studies: www.bbpmag.com

WiredWest is a 44-community partnership in Massachusetts: www.wiredwest.net

Maine communities taking action

Community	Contact	Technology	Coverage	Cost	Funding
Bar Harbor*	Steve Cornell, 288-5096	Fiber	Downtown – Universal	$2-15 million	Financing, Municipal
		www.barharbormaine.gov/431/FiberBroadband-Study			
Ellsworth	Micki Sumpter, 669-6655, msumpter@ellsworthmaine.gov	Fiber	2 miles	>$278,000	Grants, TIF
		www.ellsworthmaine.gov/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=78&Itemid=197			
Fort Fairfield	Tim Goff, 472-3802, tgoff@fortfairfield.org	Fiber & DSL	140 premises – Universal*	$100,000-$3 million*	Grants, Municipal

	http://fortfairfield.org/departments/economic-community-development/20-fort-fairfield-news/155-internet-access-survey.html				
Diamond Cove, Great Diamond Is.	www.diamondcove.com/contact-us/	Fixed Wireless	3-mile radius	$75,000	$40,000 Grant, Assoc. Dues
	www.diamondcove.com				
Islesboro	Page Clason, broadband@townofislesboro.com	Fiber	Universal	$3 million*	Municipal, Financing *
	http://townofislesboro.com/committees/broadband/				
Mount Desert*	Town Office, 276-5531	Fiber	Universal	$7-13 million	Financing, Municipal
	http://www.mtdesert.org/Public_Documents/index				
Old Town / Orono	Belle Ryder, belle@orono.org	Fiber	Universal	>$250,000	Grants, Municipal
	http://www.oronoedc.org/resources/				
Rockport*	Town Office, fiberoptic@town.rockport.me.us	Fiber	Village - Universal	$80,000 - $8 million	Grants, Municipal & Anchor
	http://www.town.rockport.me.us/index.asp?Type=B_BASIC&SEC={9C23DF78-CF25-45A4-8666-266AEF1363DF}&DE={D766DEA0-4481-4D49-AE68-13F2204FD9A5}				
Sanford	Town Office, info@sanfordgrowth.com	Fiber	32 miles	$1.54 million	Grants, Financing, TIF, Revenue Bond & CIP
	http://www.sanfordmaine.org/index.asp?Type=B_EV&SEC={3C392B3C-67F8-4797-B999-214AB2CC4AE1}&DE={3333E21C-7666-4179-8AB2-E81233969770}				
South Portland	207-767-7606	Fiber	4 miles	$300,000	Municipal
	http://www.southportland.org/departments/economic-and-community-development/broadband/				

*These communities have yet to determine/complete their broadband solutions. Information provided are the estimates from the communities' feasibility studies, which may also contained less expensive / less universal solutions.