

**ConnectMaine Authority**

**CONNECTMAINE**

Broadband Service Triennial Strategic Plan  
2022-2024

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## Executive Summary

Since 2005, Maine has recognized the importance of adequate internet service to everyday life and commerce, in both urban and rural areas of the state. The Maine Legislature established the ConnectMaine Authority to achieve the goal of broadband service being universally available. While the vision and goal of universal broadband in the state hasn't changed overtime, the activities to achieve that have evolved. The Maine Connectivity Authority was also established with the same broadband goals.

The triennial strategic plan for broadband service details how ConnectMaine will carry out its activities. This plan is prepared in alignment with Maine Economic Development Strategy, the State of Maine Broadband Action Plan, the Governor's Economic Recovery Committee and the Maine Climate Action Plan. The activities detailed in this plan were identified in anticipation of future collaboration and transition with the Maine Connectivity Authority.

A primary asset of ConnectMaine are the grant programs that support broadband investment. These grants help generate a pipeline of infrastructure projects, encourage universal broadband projects and support communications service providers to fill smaller gaps in broadband service. ConnectMaine instituted mechanisms to achieve those goals through a refined application evaluation process. Grants Verification & Validation further addresses accountability, from ensuring consistency in the data submitted with applications, considering cost-benefit and other program objectives, to post-project auditing. The Broadband Intelligence Platform integrates mapping activities, grantmaking and reporting. Comprehensive programming will situate Maine to maximize future financial commitment from public and private sources.

Beyond assets, ConnectMaine possesses regionally and nationally recognized leadership in bringing together people and resources, building on the strengths of each partner, and supporting local and regional work to expand broadband statewide. ConnectMaine uses an extensive stakeholder engagement process for activities like refining the grant programs, uses interagency collaboration for activities like deploying federal coronavirus relief funds, and leverages national and private-sector partnerships for attracting additional federal funds.

The ConnectMaine Authority has already started collaborating with the Maine Connectivity Authority, both of which have adopted guiding principles for future joint work in achieving statewide broadband. Building on these principles, ConnectMaine identified four strategies under which activities have been organized in this triennial strategic plan. These proposed activities are subject to change with changing political, financial, market and social environments, to limit unnecessary disruptions. This triennial strategic plan ends with a conclusion that contains several additional thoughts for activities or concepts that may arise from the changes and transitions ahead.

Building on the strengths of ConnectMaine, and leveraging new opportunities such as the Maine Connectivity Authority and federal funds, this plan seeks to realize the state vision for universal broadband service and the resulting economic and social benefits to all residents, businesses and institutions in Maine.

## Background

The common definition broadband is a high-capacity transmission technique using a wide bandwidth, enabling large simultaneous communications; it's internet access that's always on. The infrastructure that makes broadband service available to consumers, the cost of that infrastructure and service, and the ability to access, afford and use broadband service are all intertwined. While infrastructure is costly, the benefits are four-fold.

Broadband performance is measured by:

- Bandwidth—the ability to download and upload data, measured in megabits per second
- Consistency—the ability to maintain subscribed speeds, including times of peak usage and high-saturation
- Reliability—the ability to connect and stay connected anytime, including times of high-saturation, system breakdowns and storms
- Affordability—the ability to provide service at a price that consumers can pay

The Maine Legislature established the ConnectMaine Authority to achieve these statutory<sup>1</sup> goals:

- Broadband service being universally available to all residential and business locations and community anchor institutions in Maine;
- Broadband infrastructure being secure, reliable, competitive and sustainable, and meeting future broadband needs; and
- All Maine residents, businesses and institutions being able to take full advantage of the economic opportunities available through broadband service.

As a private-sector service, broadband is available where the customer base is large enough for financial solvency of internet service providers. This kind of private-sector-driven expansion of broadband isn't economically viable in sparsely populated or remote areas of the state. Without public investments, areas of the state that don't have broadband service won't attract private investment. These areas are too small or remote to prioritize deployment of limited private resources there, and/or these areas are too sparsely populated for private companies to realize adequate returns on their investments. The low density of potential customers can also affect the sustainability of ongoing operations.

Toward the goal of leveraging and maximizing federal, state and private investments, the ConnectMaine Authority has a statutory duty to collect and disseminate information regarding the need for broadband in the state. The state endeavors for all residents, businesses and institutions to take full advantage of the economic opportunities available through broadband service. The ability to access information, create and share content, work from anywhere in our state, access learning and improve health outcomes all hinge on broadband availability. Broadband in rural communities enables talent attraction, innovation, skills upgrading and access to a global economy, in addition to access to social opportunities.

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<sup>1</sup> The ConnectMaine Authority statute, 35-A M.R.S.A. Ch. 93, is hereafter referred to as the statute.

Studies conducted at the national level indicate a positive, causal relationship between broadband infrastructure and gross domestic product growth among 22 Organization for Economic Cooperation and Development countries. A 10% increase in broadband penetration adds a quarter of a percent to GDP growth on average.<sup>2</sup> A Purdue study<sup>3</sup> summarized other work that focused on the local economy, which also found a positive relationship between broadband availability and economic growth. In rural areas specifically, broadband access and adoption have a positive relationship with economic growth, business attraction and growth, and higher household incomes.<sup>4</sup>

A study of broadband development in rural Kentucky found that every one percent increase in broadband adoption, employment increased by 0.14%.<sup>5</sup> Using numbers from an earlier study by Ohio State University Swank Program,<sup>6</sup> a generalization by Roberto Gallardo at Purdue Extension determined that a rural home without broadband misses out on \$1,850 in economic benefits per year.<sup>7</sup> The State of Maine Broadband Action Plan states a high economic payback on investing in broadband, a 4:1 return on investment.

The cost of that last-mile infrastructure is exacerbated where connective infrastructure also has to be built or leased, in addition to backhaul costs of connecting end users with the internet. Due to statutory limitations on the ConnectMaine Authority, funds have been deployed to only last-mile projects. This strategy has been essential for connecting tens of thousands of Mainers to the internet, but it hasn't been sufficient for ensuring universal broadband service statewide.

The ConnectMaine Authority is funded primarily through two assessment fees on communications services. The first assessment is one quarter of one percent (0.0025%) of Communications Service Provider State revenues, and the second is ten cents per phone number. These revenue sources decline year-over-year as subscribers discontinue landline-based services and migrate to wireless services that have not been assessed these fees. The 2021 rulemaking expanded the second fee from only landline telephone numbers to all phone numbers.

Of all infrastructure projects awarded grants by ConnectMaine over its history, those contributing to the current state's broadband goals total nearly \$28 million; of which, ConnectMaine has awarded over \$10 million in grants. This has been about 36% of the cost to expand the availability of broadband service to over 15,000 potential subscriber locations in Maine; over 10,000 of which were in previously unserved areas of the state.

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<sup>2</sup> Koutroumpis, P. 2009. The economic impact of broadband on growth: A simultaneous approach. *Telecommunications Policy*. Vol:33, Pages: 471-485.

<sup>3</sup> Gallardo, R., Whitacre, B., & Grant, A. 2018. Broadband's impact: A brief literature review. *Research & Policy Insights*. Pub. 001, Pages: 3-4.

<sup>4</sup> "Other studies have concluded that no significant impact of having faster broadband deployment on household incomes, employment rates (Kolko, 2012), or changes in unemployment rates (Jayakar & Park, 2013)." Footnote 3.

<sup>5</sup> Shideler, D., Badasyan, N. & Taylor, L. 2007. The Economic Impact of Broadband Deployment in Kentucky. *Regional Economic Development*. Vol: 3, Pages: 88-118.

<sup>6</sup> [https://aede.osu.edu/sites/aede/files/publication\\_files/Connecting\\_the\\_Dots\\_of\\_Ohio\\_Broadband\\_0.pdf](https://aede.osu.edu/sites/aede/files/publication_files/Connecting_the_Dots_of_Ohio_Broadband_0.pdf)

<sup>7</sup> <https://www.dailyonder.com/broadband-economic-benefits-invest-broadband-infrastructure-adoption/2017/08/07/20695/>

To support the development of broadband plans and the local investment needed, ConnectMaine has awarded over \$850,000 in community broadband planning grants. These funds have supported community surveying and organizing, broadband plans, feasibility studies and business modeling for over 250 of Maine's municipalities and townships.

In July 2020, Maine voters overwhelmingly passed the first broadband bond of \$15 million. A stakeholder engagement process launched shortly thereafter, in which the ConnectMaine broadband infrastructure grants program was examined to better align it with the state's goals for expanding broadband availability, and to maximize the impact of the infrastructure grants.

Since March 2020, the current coronavirus pandemic has added urgency to the long-standing need for universal broadband and has magnified its importance to attracting and retaining talent in Maine. While the need for broadband service is clearer than ever, relying on public funds for expanding broadband is riskier than prior to the pandemic. As economic activity temporarily ceased and has slowed, state and local governments struggle to meet revenue projections. Financial commitments to meet public health and educational needs also loom high. With increased public pressure to improve connectivity and with extremely low interest rates for state bonds, the Governor's Economic Recovery Committee recommended significant broadband investments.

In response to this pandemic, the Governor's Office launched an initiative called Connect Kids Now! under which programs were developed, including a deployment of mobile hotspot devices to households of students having to move to remote education. ConnectMaine administered federal funds through a grant program developed in cooperation with the Department of Education to fund broadband infrastructure projects deployed by internet service providers. Federal and other sources of funds for digital inclusion programs have been limited.

The Maine Legislature also recently established the Maine Connectivity Authority to achieve the same statutory<sup>8</sup> goals as ConnectMaine, with additional authority or options around investing in middle-mile or backbone infrastructure. In response to the pandemic, hundreds of millions of federal funds are expected to flow to the state of Maine for the purpose of improving internet connectivity. The Governor's Office has prioritized these funds for the new Maine Connectivity Authority to administer. Future plans for both authorities should be jointly and clearly communicated to the private sector, state partners and local communities.

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<sup>8</sup> The Maine Connectivity Authority statute, 35-A M.R.S.A. Ch. 94.

## Vision

The State of Maine Broadband Action Plan was created prior to the coronavirus pandemic. In response to the pandemic, the Governor formed an Economic Recovery Committee (ERC), which set the goal of Maine becoming a leader in broadband infrastructure, access and digital equity. The ConnectMaine Authority sets the vision of closing the digital divide in Maine by 2025.

## Connectivity

Based on its statutory goals, ConnectMaine envisions a state where all residences, businesses and community institutions have broadband service available that is reliable and competitive, with future-looking infrastructure that is secure and sustainable, and where all residents, businesses and institutions are able to take full advantage of broadband service for economic and social opportunities. The ERC affirmed the vision of every Mainer having a high-quality internet connection to support economic development, remote work, distance education, telehealth and meaningful community connections.

### *Availability*

The State of Maine Broadband Action Plan set the 2025 goal of 95% of all potential subscriber locations in Maine having access to expanded availability of broadband with sufficient capacity needed for full participation in our society, to enable civic and cultural participation, employment, lifelong learning, and access to essential services. A step toward this goal was identified in the last triennial strategic plan: For 93% of locations, 25/3mbps internet service is available by 2021. Based on FCC data, which overstates the availability of actual internet service, it's estimated that 95% of the state has access to this level of internet service.

The effect of the pandemic on Maine businesses and households illuminated the insufficiency of internet service with speeds of 25/3mbps or less, for the ability to support all users of common network applications simultaneously. To meet the broadband vision of the state, the ConnectMaine Authority designated broadband service as 100/100mbps in early 2021. While unserved areas were designated based on availability of 50/10mbps, eligibility for grants also applied in underserved areas. Unserved and underserved areas cover nearly 90% of the state.

### *Adoption*

Economic and social benefits of expanding broadband availability can only be realized with the use of broadband infrastructure. Experiences in connecting to the internet affects future demand for internet service. Internet users increasingly expect universal connectivity and seamless transitions between devices and locations. To assess the usage of broadband, or adoption of internet service, ConnectMaine works with internet service providers and grant applicants to collect fine-scale data.

Based on FCC data, about 55% of Mainers subscribe to internet service of at least 25/3mbps, but the percentage of Mainers that can access this level of internet service is overstated; subscription is about 65% nationwide. Where take rates are lower, there is less financial incentive for private companies to invest in the expansion of broadband service.



Broadband adoption is affected by aspects of digital equity and digital inclusion: affordability, digital education, accessibility, etc. Regardless of geographic location, or socioeconomic or citizenship status, all individuals and communities should be able to access information, create and share content, improve health outcomes, access learning and work from anywhere in Maine. The State of Maine Broadband Action Plan seeks to address some of these aspects through the ConnectMaine broadband infrastructure grants program.

### **Cost**

Realizing this vision of connectivity was estimated to cost \$600 million, as documented in the State of Maine Broadband Action Plan. While thousands of more Mainers were connected since then, the cost remains high due to supply and labor challenges that have arisen with the pandemic. While this cost compared poorly to the limited state funds for broadband prior to the pandemic, the amount of funds being dedicated from local to federal levels are now comparable to the cost.

There are great indirect costs from failing to invest in broadband expansion. An entire strategy in the Maine Climate Action Plan relates to engaging with Maine people and communities, and many other strategies rely on analyzing data and sharing information. These activities are more costly, if not nearly impossible, to carry out with broadband.

### **Commitment**

The Maine Economic Development Strategy identified ubiquitous broadband connectivity as a lynchpin strategy. All three of the underlying actions relate to funding solutions for the expansion of broadband service. Recognizing that private investment alone won't realize this connectivity vision, public funds are committed to help address gaps in the cost of expanding broadband statewide.

For investing in infrastructure that expands broadband service, the State of Maine Broadband Action Plan recommended a two-track application process to encourage community-driven, universal broadband projects, and to support internet service providers seeking to fill smaller gaps in broadband service. After refining the infrastructure grants program, and in developing the Grants Verification & Validation process, ConnectMaine instituted mechanisms to achieve those goals through the application evaluation process rather than a two-track application.

## Goals

The ConnectMaine Authority is directed to prepare a detailed, triennial strategic plan for broadband service to carry out its statutory duties, goals and policies. While the vision of universal broadband in the state hasn't changed overtime, the goals and actions to realize that vision evolve overtime as circumstances change.

With the recently established Maine Connectivity Authority, ConnectMaine adopted guiding principles for future joint work in achieving statewide broadband:

- Sustain the community of broadband advocates that support local broadband investment and engagement
- Protect and sustain the revenue streams of ConnectMaine, which support ongoing work of expanding broadband availability
- Avoid disrupting the marketplace and ongoing grants programs, and ensure clear, joint communications to the industry, state partners, existing staff and Maine communities about future plans
- Ensure consistency in process and messages, and minimize the potential for confusion, ambiguity and additional overhead related to the existence of two state broadband entities
- Be ambitious, bold and innovative, and build from our shared work and knowledge, and avoid encumbering the Maine Connectivity Authority with statutory limitations or rulemaking obligations on the ConnectMaine Authority

Additionally, ConnectMaine will also be guided by the following principles to deliver on statutorily required reports and for future efforts to expand the availability of broadband service:

- Keep digital equity central to all efforts, which includes affordability of broadband service
- Continue to build a common understanding among stakeholders of role of broadband in economic development, education, telehealth, civic engagement and equality
- Further influence the deployment of federal funds in ways that work for Maine

## Grants

One of the statutory duties of the ConnectMaine Authority is developing grant programs that support broadband investment. To expand the availability of broadband service to residential and small business customers in unserved or underserved areas, funds are identified, developed and provided for broadband investments in unserved and underserved communities. Such investments may include infrastructure that is used by a single provider or by multiple providers. This last-mile strategy is set in the context of: "There are lots of federal funds arriving soon in Maine. Top priority is getting people connected."

By the end of 2021, over 250 communities in Maine had benefited from planning grants for conducting the community-driven broadband planning process. Looking to meet the current and future broadband needs of the community, and ensure equitable access, most plans call for broadband service that is universally available. These substantial projects seek to expand infrastructure that brings affordable and reliable connectivity. Many of these communities are actively seeking enough funds to implement projects. To demonstrate capability of building and operating the broadband network, these projects involve public-private partnerships between communities and communications service providers.

To-date most projects funded with state grants have been proposed by communications service providers to address coverage gaps within or between communities such as providing line extensions or filling dark pockets. Given that these types of coverage gaps aren't experienced by whole communities, less community engagement occurs. To avoid unnecessary over-building, eligibility involves documenting that no other plans exist to expand service that meets the build-to standard for broadband service. By leveraging and expanding the existing broadband networks, these projects help achieve the state's broadband vision.

## **Funds**

The State of Maine Broadband Action Plan stated a goal of investing \$200 million of public funds toward to the \$600 million broadband vision in the Plan, which is less than half of what the Maine Department of Transportation spends on the State highway and bridge system annually. This low-end contribution would allow the state to fund an average of 25% of broadband projects. On the high-end, with fewer local or federal contributions, up to 75% of projects would have to be funded by the state, at a cost of \$450 million. In the end, the required state contribution is likely to be somewhere in between \$200 million and \$450 million.

This mix of funds from the provider, and state, federal and local governments is one of the key reasons that community engagement is a central strategy for achieving state broadband goals. The community engagement strategy ties together planning, building and inclusion. This work should continue, and the support structure should be enhanced.

In this way, the ConnectMaine Authority aims to fulfill the statutory goals of maximizing federal, state and private investments. The ConnectMaine Authority is funded primarily through two assessment fees on communications services. This ConnectME Fund should be protected and sustained to support ongoing expansion of broadband infrastructure. Beyond infrastructure, digital inclusion work requires dedicated, sustained source of funds.

## **Areas**

In order to focus federal, state and private resources, statutory policies reference areas as unserved or underserved with regard to broadband service. Designation of broadband service is subject to a thirty-day comment period. At its April meeting and then confirmed at its June meeting, the ConnectMaine Authority approved the designation of broadband service as at least 100/100mbps, and the use of 50/10mbps for the designation of unserved areas. Following 2021 rulemaking, underserved areas were designated based on these two levels of service.

Following an extensive stakeholder engagement process to refine the infrastructure grants program, ConnectMaine established requirements for funded projects in alignment with the State of Maine Broadband Action Plan. While funded projects must meet performance criteria for broadband service, ConnectMaine also set review criteria to give preference based on gigabit symmetrical service offerings. This helps ensure state broadband goals, including that funded infrastructure be forward-looking to provide benefits that outlive the investment.

Previously in the State of Maine Broadband Action Plan, broadband service was determined as 25/3mbps, and unserved areas were those where this level of broadband service is unavailable; areas where less than 20% of the households had access to broadband service were underserved. Based on the understated estimations made for the State of Maine Broadband Action Plan, more than 83,000 addresses in the state are unserved. The last triennial strategic plan estimated that 50% of Maine road miles were likely unserved.

ConnectMaine is utilizing better analytic tools, ones that consolidate GIS data and information collected from Mainers and the industry rather than using proxies. Visualizing these datasets and the extent of broadband service in Maine at the potential subscriber level will contribute to understanding and tracking the overall investments needed to expand broadband availability statewide.

The new Broadband Intelligence Platform can be described as mapping on steroids. In addition to the grants portal for applicants, this platform allows modeling middle-mile projects, estimating costs of both middle-mile and last-mile projects, and evaluating the business case for infrastructure projects. Census and demographic information, over 250 data layers from the National Broadband Availability Map, can be viewed. Data can be analyzed to identify areas of need, propose grant-eligible areas and evaluate selected project areas. The Broadband Intelligence Platform can also be used to demonstrate progress on state broadband goals.

## Activities

In addition to goals, the ConnectMaine statute requires that this triennial strategic plan to include activities, measures of performance and timelines to achieve those goals. Other required components include budget allocations, a definition of broadband and other relevant information<sup>9</sup>.

To achieve the goal of universal broadband in the state, the ERC made two overarching recommendations, which also align with the State of Maine Broadband Action Plan:

1. Convene public, private and philanthropic stakeholders to completely map, prioritize and create program design in anticipation of new funding; and
2. Advance digital equity and inclusion by increasing access to broadband, computers, mobile devices, and expanded digital literacy training for historically underserved individuals and communities.

As part of transitioning ConnectMaine assets and programs in collaboration with the Maine Connectivity Authority, the following strategies have been identified:

- Last-Mile Strategy that continues ongoing work of expanding broadband availability
- Strategizing Tools that build on shared knowledge to be ambitious, bold, and innovative
- Community Engagement Strategy that builds local broadband investment and engagement
- Staffing Strategy that avoids unnecessary disruptions and duplicative overhead

## Last-Mile

Under the lynchpin strategy of statewide broadband, the Maine Economic Development Strategy identifies the action of providing consistent, predictable and robust funding levels for broadband infrastructure grants. Supporting broadband investment, facilitating state support in deploying broadband infrastructure and administering funds are statutory duties of the ConnectMaine Authority. Comprehensive programming will situate Maine to maximize future funds from public and private sources, and leverage bonds at today's historic low cost. ConnectMaine identified two, short-term options for the Last-Mile Strategy.

### *Investments*

The State of Maine Broadband Action Plan recommended an investment by the State of Maine of \$30 million in fiscal year 2020-2021 and \$42.5 million in each of the following four years. In that first fiscal year, only \$15 million was committed in a state bond. This was the first state bond for broadband investment, and it received overwhelming support from voters. Additional investments are necessary to reach the goals of this plan. Fully funding of this first year would start the work in high-impact communities and would demonstrate to the other public and private partners that Maine is committed to supporting and growing our rural economy to encourage partner investment.

Despite the pandemic, or with a heightened sense of urgency due to the pandemic, the ERC recommended making the investments outlined in the State of Maine Broadband Action Plan; immediately the state should bond \$100 million, which would match other federal sources, and make biennial investments until the plan is completed. This upfront commitment from the state could help support aggressive pursuit of federal funds and other opportunities, and funds can be disbursed on an annual basis for the next five years.

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<sup>9</sup> These additional components can be found in the Appendices of this Plan.

Currently, about \$6.5 million remains of that first \$15 million bond. A short-term option for the Last-Mile Strategy would be increasing the amount of funds available for infrastructure grants, which will likely be oversubscribed by threefold. This increased investment should occur before the next application window is opened:

1. Ensuring access to funds before the application window is opened would allow potential applicants to have a better idea of the size and potential competitiveness upfront. More information should be known about federal funds before the application window is opened as well, allowing the state broadband entities to invest and applicants to stack funds wisely.
2. Allowing the federal Capital Projects Fund (CPF) to be part of the equation could be achieved by grouping proposed projects that would be community-owned separately. Many potential applicants decide whether or not to apply based on the amount of funds available.

Another option for increasing the amount of funds available for infrastructure grants would be to implement a grants program of the Maine Connectivity Authority, which could either mirror ConnectMaine programs or involve more significant changes:

- Such a grants program could be announced as early as March, if the Maine Connectivity Authority adopts something close to the ConnectMaine Broadband Infrastructure Grants Program. Implementing such a program, and opening an application window in March, would result in awards near or within summer; these infrastructure projects take a year and half to get built and get people connected.
- Significant changes in the grantmaking process will require more organization and preparations, delaying the application window, the awards and the builds. This delay would be unfortunate, because people would continue to lack broadband service through 2023, despite the promise of more federal funds coming to connect people. With increasing demand across the country as a result of the impending federal funds, challenges in the supply chain and workforce shortages would be further exacerbated by delaying deployment of federal funds in Maine.

Following extensive stakeholder engagement, in its refinement of the infrastructure grants program, ConnectMaine set minimum amounts of financial commitments from applicants. Previously, these minimums were a percentage of total project cost, identified in the State of Maine Broadband Action Plan, which also encourages local governments to secure remaining commitments needed to match state funds from other sources, including private donations, foundations, taxes, bonds or other investments. ConnectMaine shifted to a minimum dollar amount per potential subscriber location in a proposed project area, rather than the percentage of total project cost. Providing smaller grants to less expensive projects reserves funds for more expensive projects, such as those with increased costs due to expanding broadband into lower density areas for example.

### *Accountability*

Building on efficacious investments, the accountability activities aim to ensure that infrastructure projects effectively contribute to broadband goals, diminishing the need for grantmaking overtime. The Grants Verification & Validation process, which involves significant contracts for expert support, is improving accountability on expanding broadband service statewide. The system includes a grants portal that improves applicant experience, review time and monitors the grants awarded, and it could be further developed as a client relations management system.

Currently, Grants Verification & Validation addresses accountability in the grants program, from ensuring consistency in the data submitted with applications, considering cost-benefit and other program objectives in the application evaluation process, to post-project auditing. A grants portal has been developed to facilitate the application process. ConnectMaine and the Maine Connectivity Authority identifies a near-term option and long-term option:

1. For efficiency and continuity, access and use of the grants portal should be expanded to the Maine Connectivity Authority staff. This portal is based on Salesforce, and ConnectMaine has benefited from the Department of Economic and Community Development funding and overseeing the development of Salesforce for its offices. Initially, the link to the grants portal can be added to the Maine Connectivity Authority website.
2. Long-term, the two state broadband entities will need to decide how to migrate this platform or develop another system, independent from the Department of Economic and Community Development. This would also involve separately contracting for its maintenance with the Maine Office of Information Technology or externally.

### **Tools**

Strategizing Tools help the state broadband entities build and share knowledge, set and measure ambitious goals, and identify and evaluate innovative solutions. The statute directs the ConnectMaine Authority to collect data on retail broadband service offerings and report on the competitiveness of the market. The state anticipates such data will help ensure accountability on grants awarded for infrastructure projects and illustrate areas of digital inequity. To efficiently collect such datasets and effectively make use of them, ConnectMaine needs integrated data analysis tools.

The Broadband Intelligence Platform integrates mapping activities, grantmaking and reporting. The use of these strategizing tools addresses several goals identified in the State Broadband Action Plan, including accountability for completing projects on-time and within budget, reporting speeds provided, compare level and quality of service to federal standards, track adoption or subscription rates, and improve the accuracy of mapping data.

In addressing the government's own business needs, there are opportunities to be anchors (local, county and state levels) that also serve as catalysts for better connectivity throughout communities. This is also true of implementing a smart grid. Working with the Maine Public Utilities Commission and Investor-Owned Utilities as they (rapidly) move in this direction is a rare and current opportunity. Maine should be prepared to be pro-active in these conversations.

The federal Capital Projects Fund (CPF) allows for middle-mile projects that support last-mile projects. If the Maine Connectivity Authority plans to invest in the middle-mile projects based on its statutory authority, then the CPF Project Plan will need to integrate seamlessly with last-mile projects getting built. The Broadband Intelligence Platform would be critical for this effort and so will integrating the current understanding of the state's middle-mile infrastructure with the efforts of communities and others to expand last-mile infrastructure.

### *Data*

ConnectMaine collects data and conducts mapping activities, which support its programs and help measure progress toward its goals. Another statutory duty of the ConnectMaine Authority is defining unserved and underserved areas with respect to broadband service, and consideration of the percentage of households with access to broadband service within a municipality or other appropriate geographic area is also required. Relying upon the data that service providers submit in the FCC Form 477 dramatically overstates the geographic availability of broadband service. As further described in the State of Maine Broadband Action Plan, this has been one of the key barriers to improving connectivity.

ConnectMaine works to obtain more relevant data at finer scales to achieve the state's broadband vision. Following the 2020 rulemaking that expanded the required data filing of communications service providers, ConnectMaine solicited industry data on the extent of broadband service in Maine. According to the ConnectMaine rule, those that fail to provide data requested are ineligible for state funds.

To improve understanding of broadband service in Maine and target its investments, ConnectMaine also supported a speed testing initiative launched in late 2020 by the Maine Broadband Coalition. A speed test measures real-time speeds of an internet connection between a device, such as a computer, and a server, through which data flows. These tests are being considered in the development and use of the Broadband Intelligence Platform.

### *Mapping*

ConnectMaine also maps the extent of funded projects that contribute to the state's goals. In addition to measuring progress, this helps with efficacious deployment of future funds. Between the application and accountability requirements, it's possible to map at a fine scale the expansion of broadband infrastructure as well as the service provided. To accurately and efficiently visualize the data reported, rather than trying to manually map data using up to five different platforms, the Broadband Intelligence Platform integrates all this data into one mapping platform.



Under the CPF, mapping is a program, not administrative, expense. Using these federal funds means that continuing to use the Broadband Intelligence Platform would need to be included in future grant applications rather than simply accounted as administrative expenses. There are two ways to continue supporting Strategizing Tools:

- Dedicate funds to continue mapping activities. Requested funds under the CPF would include continuation of the mapping tool as a programmatic expense. The work and benefits of the Broadband Intelligence Platform should continue, with purchase of middle-mile and business-case modeling components. Training and support for these tools at the local level would be central to communities using data to determine the business case, the cost and the demand aggregation. This specific support would be needed if municipal projects will be prioritized under the CPF.
- Dedicate staff capacity to mapping activities. The Maine Connectivity Authority should consider investing in GIS expertise, as the demand of the Broadband Intelligence Platform continues to grow and be enriched with more mapping data and uses. This would require  $\frac{3}{4}$  FTE at a minimum to manage data and conduct mapping activities. Staff should also support community engagement, which would be an allowable administrative expense under the CPF. A Program Manager to delve into the strategy tools, as well as work with communities on both the VETRO Cares and GEO Partners mapping platforms could be essential.

### *Unserved*

In order to focus federal, state and private resources, statutory policies reference areas as unserved or underserved with regard to broadband service. The work of designating areas, and the required data filing that's associated, isn't insignificant. While the FCC data collection effort may or may not be successful, it's over a year away from implementation to reduce this workload. Complicating the work is the fact that federal funds from the infrastructure package will be contingent on these new maps. Improved data collection, analysis and mapping are all central to effective decision-making on projects to expand broadband service.

The last triennial strategic plan set a goal to redefine the unserved to recognize the value of longer-term investment, but prior to the pandemic this was thought to be a service level of at least 100/10mbps. The 2021 rulemaking emphasized the functionality of broadband as the basis for designation of broadband service and unserved areas. ConnectMaine is continuing to develop the Broadband Intelligence Platform to ensure effective decision-making, and ability to counter challenges on unserved areas, for future federal funds. While ConnectMaine designated broadband service at 100/100mbps, the service level of 50/10mbps was used to designate unserved areas.

### **Engagement**

The community broadband planning support program creates a pipeline of potential projects, gets communities ready for broadband expansion and leverages multiple sources of funds. The Maine Economic Development Strategy includes the action of continuing to provide community broadband planning grants specifically to help increase take rates that make infrastructure projects more feasible. Startup grants are awarded to help communities begin the process of figuring out how to bring broadband to their area. Community broadband planning grants are awarded to develop plans for expanding the availability of broadband service, and to produce strategies for digital equity and inclusion.

### *Support*

The program also includes technical assistance through Connectivity Boosters and analytical tools from consultant partners, and the evolution of more digital inclusion work. Maine's Climate Action Plan recognized the underrepresentation of those without broadband and the added effort associated with ensuring future participation of these Mainers. In addition to local and historically disconnected representation, this program aims to address multiple layers of support that are needed to advance a community process and regional collaborations that become central to meeting state broadband goals. Without dedicated capacity to fuel local processes and technical assistance to inform decision-making that drives implementation, broadband planning stalls or fails.

Given the unprecedented opportunity to maximize federal, state and local funds, now is the time to invest in the people and processes that ensure deployment of universal broadband and enable the maximum return on broadband investments. Connectivity Boosters are trained volunteers with the dedicated and explicit role of providing flexible support to local and regional planning efforts. This technical assistance supports community organizing, helps assemble financing and establishes public-private partnerships. The Connectivity Boosters and other broadband leaders are part of a community of practice, which involves shared learning, resource sharing and technical assistance for these volunteers. The community of practice is also a centralized place for expanding educational and training offerings, and for accessing community broadband mapping and other analytical tools.

One of the most effective ways of making infrastructure projects more feasible is to extend or eliminate the need for the monetary return on investment to expand broadband infrastructure. Maine law allows local and regional governments to form Broadband Utility Districts (BUDs) that could own broadband infrastructure. These BUDs don't need to profit from the infrastructure, reducing the capital cost of projects. This can help ensure that broadband service is universal in the community and that subscriptions are affordable. Specific technical assistance to be developed would include translating broadband feasibility studies into business plans, legal structuring and partnership agreements, and ensuring adequate funds for infrastructure projects are available.

In addition to this community broadband planning support program, there's an additional way to support the Community Engagement Strategy. One of strengths of ConnectMaine has been trying new things, changing old things, learning along the way and adapting. ConnectMaine has been, and the state should continue to be, a partner in these efforts to innovate and fund the expansion of broadband. Committing the first dollars on new ideas, to get communities productively engaged is critical. Budgets should reflect the ability to add new approaches or to change course quickly, in partnership with communities and community organizations that are central to state broadband goals.

### *Inclusion*

Digital inclusion and equity should remain central to all efforts. Beyond infrastructure, realizing the economic benefits of broadband requires overcoming other challenges of the digital divide. Broadband performance includes affordability of service and equipment necessary to access the internet. Many Mainers face other access and digital education needs in order to take full advantage of the economic and social opportunities made available from broadband service.

With regard to the transportation strategies of Maine’s Climate Action Plan, reducing the need for driving requires expanding broadband to bring online services and opportunities to more people. Universal broadband also makes it possible to ensure information, such as energy efficiency programs, is available to all Mainers, as described in the Equity Assessment. The equity benefits of expanding broadband availability statewide are recognized throughout the Climate Action Plan.

Having access to broadband isn’t the only barrier to internet use; the cost of service can also be a hinderance to many Maine residents and businesses. As part of its grants program, the ConnectMaine Authority considers the retail cost of service to the potential subscriber, including whether or not any data usage limits unreasonably hinder current internet uses. Service provided from funded projects must be equal to or less than the price per subscriber offered elsewhere in the state.

The digital equity and inclusion plans developed under the community broadband planning support program can contain community commitments and strategies to increase the subscription rate and maximize the use of the proposed broadband infrastructure. These may include addressing affordability and access to service, computers, mobile devices and expanded digital literacy training for historically underserved individuals and communities.

Extending broadband work into digital inclusion is a logical next step as more communities get connected. The need to address digital inequalities in more urban areas of Maine is looming. Both eligibility criteria and sources of funds would need to be strategized in order to address urban digital inclusion, e.g., changing the designation of underserved areas but also dedicating portions of federal funds to those areas. Digital inclusion activities should align with the Maine Economic Development Strategy around workforce readiness, education and telehealth. Data collection on affordability of prices and devices requires capacity not yet dedicated.

## **Staffing**

Achieving the goals and implementing the strategies identified will require maintaining and increasing staff capacity. The Staffing Strategy is two-fold:

1. Maintain essential, existing staff
2. Address long-standing capacity challenges by increasing staff headcount

The last triennial strategic plan, the State of Maine Broadband Action Plan, as well as the ERC, identified two ConnectMaine staff positions as insufficient to achieve the state’s plans or goals. Bond funds being limited to only capital expenses means that administrative and compliance activities of ConnectMaine must be otherwise funded. With the additional activities made possible by the Maine Connectivity Authority statute, additional staff could be necessary. There is plenty of work to support the transitional activities currently underway and the upcoming activities of the Maine Connectivity Authority.

### *Capacity*

Additional staff capacity has been an identified need in report after report; now with increasing responsibilities, a plan is needed for addressing this shortfall. To ensure efficiency, continuity and avoid costly disruptions, ConnectMaine staff should remain as state employees for as long as they wish. The staff needed moving forward is very likely five to six headcount among the two state broadband entities:

- Grants management and financial management could be made into two separate staff positions. The Maine Connectivity Authority will need a finance manager to track and report on federal funds that it will be administering.
- Taking full advantage of the Strategizing Tools would require a staff position dedicated to GIS mapping and data management, including how these contribute to reporting requirements, infrastructure grants and deployment, and the community broadband planning support program.
- There is also significant advocacy work around federal funds and programs. Tracking the mapping efforts at the FCC and how that will impact work in Maine takes time and communication, especially in light of federal funds being tied to FCC mapping. Many communities have attracted federal funds, but projects remain gridlocked years later; this staff position could work closer with communities and federal agencies, like USDA, to anticipate federal rules and address challenges faced by communities awarded grants.
- In addition, working with communities on better planning activities, financing plans and the extensive digital inclusion outreach, as called for in the Maine Connectivity Authority legislation (LD 1733), would require an additional headcount.

### *Collaborations*

In concert, the Maine Economic Development Strategy, the State of Maine Broadband Action Plan and ERC recommendations emphasize the importance of cross-sector, stakeholder engagement, specifically: interagency cooperation, fostering public-private partnerships, and coordination among the Governor's Office, Department of Economic and Community Development, Department of Education, Office of Information Technology, the University of Maine System, federal agencies, and private and community partners. While ConnectMaine hasn't had the time to fully engage in these efforts yet, staff has started to work with the DOL Workforce Investment Boards on an NGA grant to develop a strategic plan for workforce digital skills and engagement. This type of interagency effort takes time and patience to develop and implement. If digital inclusion is ever to be imbedded across state government, this effort needs attention and time of an advocacy staff position.

The benefits of such collaborations are numerous, but engaging partners to realize the benefits has yet to be accomplished. A multi-sector shared plan could be created by working with key stakeholders. Such a plan would develop actionable steps toward these types of collaborations, identify ways to financially support the work, and avoid creating redundancy in efforts to collaborate and ultimately deploy broadband statewide. Some non-profit and business groups are already investing in these ideas, which can be achieved with leadership, investment and activity at the state level.

## Conclusion

While the vision of universal broadband in the state hasn't changed overtime, the goals and actions to realize that vision evolve overtime as circumstances change. The activities proposed in this triennial strategic plan are subject to change, especially with changing political, financial, market and social environments of Maine and the nation. While change is inevitable and beneficial, it's important to limit disruptions in the marketplace of the private sector. The statute requires the ConnectMaine Authority to provide an annual legislative report on its activities.

## Partners

Navigating the integration of community planning processes, mapping data and the Maine Connectivity Authority strategy of lowering the cost of infrastructure through equity and ownership will be tricky. This will likely involve the engagement of people from across the state having varying degrees of understanding. Before partnerships can be fully realized, the Maine Connectivity Authority will need to decide on its processes and activities, setting the criteria for decision making.

ConnectMaine was nationally recognized in February 2020 by the Pew Charitable Trusts for the community broadband planning program. ConnectMaine is solidly a part of a state broadband leaders network, and is regularly called upon by other national advocacy groups like the Broadband Connects America coalition and the Institute for Local Self-Reliance, and by other federal broadband programs like the National Telecommunications Information Administration.

The State Broadband Action Plan identified the goal of state funds acting as seed funding to encourage and align funds by local, private providers, potential loans and federal government programs. ConnectMaine uses funds as well as administrative capacity to leverage funds from other sources and through its innovative programs. ConnectMaine applied to the National Telecommunications Information Administration for a \$28 million grant plus 10% of that in state and private funds to expand broadband to 15,000 locations. The Broadband Intelligence Platform supports these types of applications for federal funds, by engaging the private sector early in the process.

Engagement with federal agencies, like NTIA, and in the state broadband leaders' network is needed to continue influencing and understanding federal programs for the benefit of Maine. If the infrastructure bill passes, how those funds will be distributed (not how much but the actual process) is yet to be determined, and Maine should remain at the table to ensure flexibility and sensibility in federal programs established or enhanced.

Given the establishment of the Maine Connectivity Authority, the approach to ConnectMaine activities considered benefits to both entities, as complimentary authorities. With federal funds flowing to the Maine Connectivity Authority to administer, communication with the private sector, state partners and local communities should be consistent in process and message. Broadband is the work of all state agencies, of all sectors. The ERC recommends creating a plan to facilitate the colocation and joint use of broadband with intelligent transportation and grid modernization deployments.

ConnectMaine builds on the strengths of each partner, bringing together people, knowledge, funds and strategies, to support local and regional work to expand broadband statewide. ConnectMaine continual learns from doing, being willing to experiment, innovate and revise its ideas, strategies and programs. The network of broadband advocates who support local broadband planning and expansion should be sustained.

ConnectMaine and the Maine Connectivity Authority should revisit its partnership come autumn. A potential activity longer-term could be to move chunks of ConnectMaine programming and supporting statutory language to the Maine Connectivity Authority; whereby, the Maine Connectivity Authority would set the overall policy and strategy direction, and focus on various revenue streams and middle-mile projects, while ConnectMaine programming would continue to focus on community broadband planning support and last-mile grants, pursue alternative federal funds. This move would also specifically address the existing revenue stream.

The ConnectMaine Authority is funded primarily through two assessment fees on communications services. This ConnectME Fund, including the recent increase being implemented through rulemaking, should be protected and sustained to support ongoing expansion of broadband infrastructure. There is an associated risk in addressing this part of the statute: The industry has ideas on simplifying from the current two-fee structure; considerations include how much revenue is generated and the very likely opposition from the cellular industry. Seeing any of these changes through would require developing a strong legislative agenda and lobbying plan.

## **Middle-Mile**

There is already interest in equity capital in Maine. At least three communications service providers and at least two investment firms are just the tip of the iceberg. The Maine-based company Axiom Technologies is also talking with equity partners. ConnectMaine has been a part of early and continuing conversations with Post Road Foundation work in this area. To help Maine to capitalize on this potential equity capital and other opportunities from investing in middle-mile and smart-grid projects, connecting the dots could be accomplished with business modeling, and using analytical and strategizing tools.

Investigating and implementing investment activities longer-term could include the following, which will be possible under the statutory authority of the Maine Connectivity Authority:

The Maine Economic Development Strategy calls for a program at the Finance Authority of Maine that provides loan guarantee insurance to communications service providers. Loan guarantees are not the same as low interest loans, not the same as junior loans, but FAME could potentially consider these, especially if the lending and loan insurance limits are increased and/or the state increases their capital reserves. Working with private banks may make them more comfortable with loaning to community-driven projects. Either with the private-sector or community development investment institutions, the broadband feasibility studies could be translated into business plans for attracting the needed financing. Additionally, how to address the common problem of companies and communities that don't have debt capacity left could be investigated.

A revolving loan fund would provide a new source of financing for broadband infrastructure projects. Such a fund could provide loans at multiple risk levels to multiple borrowers: municipalities at lower risk, communications service providers at varying risk levels based on financial history and start-ups at higher risk. Administered by the state or FAME could potentially allow for lower interest rates, and that interest accrues overtime exceeding the cost of administration. Pairing such a fund with grants could attract more borrowers, while extending more grants to more recipients increasing overall impact of public funds.

A Peering Center or Point of Presence (POP) is a location where multiple carriers or internet service providers (ISPs) can meet to exchange traffic. Peering reduces costs, and improves quality and speeds of data transmissions, but there may be only one POP in Maine. Establishing one or more POP would have benefits to ISPs and others. Currently internet traffic is routed only to Boston, a vulnerability for Maine. Stringing together several POPs could help establish alternative routes for internet traffic.

Monetizing middle-mile infrastructure projects could benefit of multiple stakeholders. In addition to connecting end users, projects funded with grants can provide redundant routing, support smart-grid projects, connect anchor institutions such as government and health facilities, etc. Owning a portion of the infrastructure, a number of dark fiber strands, would allow the state to lease that added capacity. While making otherwise inaccessible fiber routes available, the state would benefit from the revenue overtime as demand for continues to increase steadily into the future. Owning enough fiber mimics a large real estate investment.

## **Technology**

The designations of broadband service and unserved areas are utilized to determine geographic areas eligible for implementation of infrastructure grants but do not necessarily define the capabilities, or build-to standard for broadband service, to be deployed with those grants. Many more areas of the state lack universal broadband sufficient for all residents, businesses and institutions to take full advantage of economic and social opportunities than the targeted areas in which ConnectMaine can deploy limited state funds.

In the future the usage of broadband service, instead of (only) the existence of broadband infrastructure, could be further considered in the designation of unserved areas. ConnectMaine recognized the need to focus on the affordability as another measure. The designation of broadband service should continue to weigh adequacy of the service for simultaneous use of multiple applications by all potential users, not only when no one else in a household or neighborhood happens to be online. The extensive stakeholder engagement process ahead of the designation of broadband service and unserved areas should be used in the future as well.

Users are increasingly choosing their smart phones as the primary way to connect to the internet. Technologies like 5G will continue this trend. Fortunately, the infrastructure that deploys 5G will also require fixed broadband service.

Making service available in very remote areas is the allure of satellite technologies; however, to date all satellite providers have had practices that greatly affect affordability. The high-cost installations are passed on to the subscriber, in addition to charging high prices for monthly subscription to internet service, which includes capping the amount data downloaded and uploaded. While satellite technologies are continually innovating, there is still no evidence that any future satellite providers will be different in terms of cost and availability of broadband. Dense foliage of tree canopies in Maine also remain a major challenge for satellite technologies to provide consistent, quality service.

In addition to eventual costs, there are still questions about the timetable for, and about the service quality of, the Starlink project for Mainers, but the fact that private-stage beta testing is occurring in Maine is of course exciting. This is a new technology without a history of functionality, and beta testing and piloting is to continue into 2022 at least. Under the Rural Digital Opportunity Fund, the buildout is six years out. It's also exciting that SpaceX is trying to do its pilots with digital inclusion in mind, targeting unserved and underserved, less dense areas, as demand has been outpacing supply during deployment. Limitations of Starlink include the ability to add 3500 satellites at a rate of 120 per month, before determining the actual quality and other details of this service.

## **Climate**

During the pandemic, and resulting economic crisis, many companies required employees to begin working from home. Many Mainers lost their jobs simply for the lack of broadband availability. The Maine Climate Action Plan includes the finding that many will continue working remotely, even permanently, after the pandemic subsides.

Maine has four Climate Action Plan Goals:

- Reduce Maine's Greenhouse Gas Emissions
- Avoid the Impacts and Costs of Inaction
- Foster Economic Opportunity and Prosperity
- Advance Equity through Maine's Climate Response

Expanding universal broadband service would help achieve these goals. Specifically, deploying broadband to 95% of Maine homes by 2025 and 99% by 2030 is part of reducing vehicle miles traveled. Broadband availability allows residents to work where they live, reducing Maine's higher-than-average commutes.



# Appendices

In addition to other required components of the triennial strategic plan, ConnectMaine provides helpful information related to implementing this plan.

## Definitions

These definitions originate from the statute, rule or other published state documents.

Bandwidth—the capacity for data transfer of an electronic communications system

Broadband service—a two-way, always-on, communications service that provides access to public data networks and the internet, without usage limits and meets certain performance criteria determined by the ConnectMaine Authority to be necessary to use common applications and network services

Communications service—any wireline voice, satellite, data, fixed wireless data or video retail service

Designation of broadband service—internet service with speeds of at least 100/100mbps

Designation of underserved areas—geographic areas where the available service is greater than 50/10mbps but less than 100/100mbps

Designation of unserved areas—geographic areas where the available service is less than 50/10mbps

GIS—geographic information system

FCC—Federal Communications Commission

Fiber—Glass strands, each smaller than a human hair, that are capable of transmitted a virtually unlimited amount of bandwidth using optical lasers. Fiber strands are activated with optical electronics on either end to provide communications services, considered lit versus dark fiber.

Infrastructure—physical components that provide the basic support for distributing communications services. Service drops, last-mile, middle-mile and backhaul refer to various portions of infrastructure.

## Budget

Annually the ConnectMaine Authority reviews a proposed budget that plans levels of funds for its activities, programs and initiatives. The proposed budget includes anticipated allocations for activities of this triennial strategic plan that were started in fiscal year 2022; budgets for activities that will occur in collaboration with the Maine Connectivity Authority or beyond fiscal 2022 will be developed for annual reporting to the legislature and are made publicly available on the ConnectMaine website.

**ConnectMaine Authority Financials**

Includes ConnectME Fund and State Account

FY22 Administrative Budget

Rev. 06.14.21

BUDGET	DETAIL	FY20	FY21	ACTUAL	PROJECTED	INITIATIVES	PROPOSED
REVENUE	Carryforward	\$0.00	\$1,451,280.05	\$1,469,620.69	\$886,455.65	\$0.00	\$886,455.65
Fund	Assessment Fees, interest & NBRC	\$2,975,000.00	\$1,800,000.00	\$1,630,122.61	\$3,050,000.00	\$0.00	\$3,050,000.00
State	Refunds, excluding Assessment Withdrawls			\$525.00	\$0.00	\$0.00	\$0.00
<b>SUBTOTAL</b>		\$2,975,000.00	\$3,251,280.05	\$3,100,268.30	\$3,936,455.65	\$0.00	\$3,936,455.65
<b>EXPENSES</b>							
Financial	DAFS, Solix, audit, bank charges	\$35,951.00	\$28,296.00	\$33,696.00	\$81,600.00	\$0.00	\$81,600.00
Website	InforME, OIT & Sewall	\$81,234.68	\$34,992.00	\$36,162.42	\$79,275.00	\$0.00	\$79,275.00
Administration	Salaries, etc.	\$258,700.17	\$232,910.22	\$214,583.58	\$263,563.00	\$0.00	\$263,563.00
Cellphones		\$830.24	\$1,124.74	\$983.22	\$1,080.00	\$0.00	\$1,080.00
Travel	Central Fleet	\$7,278.85		\$630.02	\$3,000.00	\$0.00	\$3,000.00
Operational Services	subscriptions, conferences	\$3,536.33	\$15,000.00	\$2,700.00	\$1,300.00	\$20,000.00	\$21,300.00
Support Services	excluding technical and intelligence		\$133,030.00	\$48,874.25	\$75,500.00	\$301,000.00	\$376,500.00
Technical Services	grants verification & validation		\$86,970.00	\$22,225.00	\$277,775.00	\$0.00	\$277,775.00
Broadband Intelligence	data collection, analysis & mapping			\$0.00	\$940,000.00	\$0.00	\$940,000.00
Planning Grants			\$285,410.00	\$64,375.00	\$46,125.00	\$200,000.00	\$246,125.00
Planning Services				\$0.00	\$0.00	\$200,000.00	\$200,000.00
Digital Inclusion			\$70,000.00	\$10,000.00	\$0.00	\$100,000.00	\$100,000.00
Grant Matches		\$50,000.00	\$1,000,000.00	\$75,000.00	\$0.00	\$750,000.00	\$750,000.00
Infrastructure Fund	separate from restricted grants	\$932,128.68	\$762,790.85	\$420,937.50	\$125,312.50	\$100,000.00	\$225,312.50
Miscellaneous	covers likely deviations		\$20,000.00	\$1,452.34	\$50,000.00	\$0.00	\$50,000.00
<b>TOTAL</b>		\$1,369,659.95	\$2,670,523.81	\$931,619.33	\$1,944,530.50	\$1,671,000.00	\$3,615,530.50
<b>BALANCE</b>		\$1,605,340.05	\$580,756.24	\$2,168,648.97			\$320,925.15

**ConnectMaine Authority Financials**

FY21 into FY22

Coronavirus Relief Funds

Rev. 06.14.21

BUDGET	DETAIL	FY20	FY21	ACTUAL	PROJECTED	INITIATIVES	PROPOSED
REVENUE	Carryforward				\$922,548.96		\$922,548.96
Coronavirus Relief	CARES	\$12,000,000.00	\$6,201,842.08	\$6,151,362.25	\$5,000.00		\$5,000.00
<b>SUBTOTAL</b>		\$12,000,000.00	\$6,201,842.08	\$6,151,362.25	\$927,548.96	\$0.00	\$927,548.96
<b>EXPENSES</b>							
Financial	pro rata share of audit	\$0.00	\$0.00	\$0.00	\$5,000.00		\$5,000.00
Digital Inclusion	affordability program	\$2,000,000.00	\$0.00	\$0.00			
Infrastructure	Connect Kids Grants	\$10,000,000.00	\$6,201,842.08	\$5,228,813.29	\$922,548.96		\$922,548.96
<b>TOTAL</b>		\$12,000,000.00	\$6,201,842.08	\$5,228,813.29	\$927,548.96	\$0.00	\$927,548.96
<b>BALANCE</b>		\$0.00	\$0.00	\$922,548.96	\$0.00	\$0.00	\$0.00

**ConnectMaine Authority Financials**

FY22 State Bond

Rev. 06.21.21

BUDGET	DETAIL	FY20	FY21	ACTUAL	PROJECTED	INITIATIVES	PROPOSED
REVENUE	Carryforward				\$2,000,000.00		\$2,000,000.00
Bonds	FY21	\$0.00	\$15,000,000.00	\$2,000,000.00	\$13,000,000.00		\$13,000,000.00
<b>SUBTOTAL</b>		\$0.00	\$15,000,000.00	\$2,000,000.00	\$15,000,000.00	\$0.00	\$15,000,000.00
-							
<b>EXPENSES</b>							
Bond Fees		\$0.00	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$10,000.00
Infrastructure Bond		\$0.00	\$14,990,000.00	\$0.00	\$8,671,323.16	\$6,318,676.84	\$14,990,000.00
<b>TOTAL</b>		\$0.00	\$15,000,000.00	\$0.00	\$8,671,323.16	\$6,328,676.84	\$15,000,000.00
-							
<b>BALANCE</b>		\$0.00	\$0.00	\$2,000,000.00			\$0.00
-							
ALLOTMENT	excludes fees			\$500,000.00	\$2,000,000.00		

## Resources

To support the activities of this triennial strategic plan, and to most effectively engage cross-sector partners, ConnectMaine collects and disseminates information to support deployment of broadband. These and other resources are shared on the ConnectMaine website:

[www.maine.gov/connectme/communities-resources/resources](http://www.maine.gov/connectme/communities-resources/resources)

## Broadband

Broadband 101 by the Benton Institute: [www.benton.org/blog/everything-you-wanted-know-about-broadband-were-afraid-ask](http://www.benton.org/blog/everything-you-wanted-know-about-broadband-were-afraid-ask)

Internet & Broadband Facts by Pew Research Center: [www.pewresearch.org/internet/factsheet/internet-broadband/](http://www.pewresearch.org/internet/factsheet/internet-broadband/)

Broadband Factsheets by Broadband Connects America Coalition: [www.broadbandconnectsamerica.com/factsheets/](http://www.broadbandconnectsamerica.com/factsheets/)

2016 Ratewatcher Telecom Guide: [www.maine.gov/meopa/sites/maine.gov.meopa/files/inline-files/Ratewatcher 2016 web.pdf](http://www.maine.gov/meopa/sites/maine.gov.meopa/files/inline-files/Ratewatcher%202016%20web.pdf)

## Planning

Community-Driven Broadband Process guidebook from Island Institute: [www.maine.gov/connectme/sites/maine.gov.connectme/files/inline-files/Guide CommDriven II 1.pdf](http://www.maine.gov/connectme/sites/maine.gov.connectme/files/inline-files/Guide_CommDriven_II_1.pdf)

Fiber-to-the-Home Tools & Resources from Broadband Communities Magazine: [www.bbcmag.com/tools-and-resources](http://www.bbcmag.com/tools-and-resources)

Guides by BroadbandUSA

- Public-Private Partnerships: [https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa\\_effective\\_public\\_private\\_partnerships.pdf](https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa_effective_public_private_partnerships.pdf)
- Stakeholder Outreach: [https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa\\_introduction\\_stakeholder\\_outreach.pdf](https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa_introduction_stakeholder_outreach.pdf)
- Planning Roadmap: [https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/ntia\\_planning\\_community\\_broadband\\_roadmap\\_052417.pdf](https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/ntia_planning_community_broadband_roadmap_052417.pdf)
- Power of Partnerships: [https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa\\_power\\_broadband\\_partnerships.pdf](https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa_power_broadband_partnerships.pdf)

Maine Model Cable TV Franchise Agreement: [www.maine.gov/connectme/sites/maine.gov.connectme/files/inline-files/Model Cable Franchise Agreement.pdf](http://www.maine.gov/connectme/sites/maine.gov.connectme/files/inline-files/Model_Cable_Franchise_Agreement.pdf)

## **Assistance**

Maine Broadband Coalition helps public policy makers and Maine citizens make the best choices about building a robust and productive information technology infrastructure:

[www.mainebroadbandcoalition.org/resources](http://www.mainebroadbandcoalition.org/resources)

VETRO Cares provides planning and design tools that can help accelerate broadband expansion in local communities: [www.vetrofibermap.com/products-and-services/vetro-cares-community-planners/](http://www.vetrofibermap.com/products-and-services/vetro-cares-community-planners/)

Consultants who have worked with communities on expanding the availability of broadband service in the state: [www.maine.gov/connectme/communities-resources/consultants](http://www.maine.gov/connectme/communities-resources/consultants)

The Blandin Foundation's consultant list may contain those who are also willing to work in Maine: <https://blandinfoundation.org/content/uploads/Broadband-Feasibility-Study-Consultants.pdf>

## **Affordability**

National Digital Equity Center provides resources to close the digital divide, including affordability and literacy resources: <https://digitalequitycenter.org/resources/>

give IT. get IT provides affordable equipment, such as computers, along with other digital inclusion resources: [www.giveitgetit.org/](http://www.giveitgetit.org/)