Broadband in Maine

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Access to internet is extremely important to daily life
Small businesses depend on high speed internet to stay open and create jobs
Preliminary survey data from May 2020 Mission Broadband

- 65% of people have service that meet their needs
- Some frustrations with cable and DSL
- Telecommuting is the biggest use
- K-12 education and telecommuting have the biggest service issues
Broadband Basics

• Down/up measured in Mbps, up is often the limiting factor
• Service that diminishes with distance and users is less desirable
• Speed isn’t only measure - quality is as important for many uses
• Different ways of getting service – Fiber, DSL, cable, wireless, satellite
  • Fiber has the highest quality of service and low maintenance costs
  • Fiber is being deployed today
  • Upgrades to electronic packages are relatively affordable
  • Fiber is proven technology that is available today
• Competitive marketplace and not a regulated monopoly like telephone service
• Achieving desired outcomes with private investment and public subsidies is best done through public-private partnerships
FCC Form 477 data overstates service

- Advertised speeds not actual speeds. The ISP may not have the technical ability to serve the advertised speeds for locations.
- Reporting is done on a census block level – so if one location is or could reasonably be served within a census block, the entire block is considered served.
- Broadband companies and Maine and federal statutes consider specific information on networks, such as how their network is built (including fiber runs and DSLAMs and other equipment) to be proprietary and therefore not public information.
- The information that is public is the FCC filing (Called 477 data), and that information is reflected in the ConnectMaine map.

Green = 25/3
Red = below 10/1
Yellow = between 10/1 and 25/3
Broadband Access

- At least **83,000 homes** lack the physical ability to connect to the internet because the infrastructure doesn’t go by their house
- A dramatic gap exists between urban and rural counties
- Information is accurate from a directional perspective and is aligned to what the FCC will use to make their decisions.

### MAINE HOUSEHOLD DATA 25/3 MBPS

<table>
<thead>
<tr>
<th>County</th>
<th>Total households</th>
<th>Households with less than 25/3 Mbps</th>
<th>% of households with less than 25/3 Mbps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine</td>
<td>722,106</td>
<td>83,144</td>
<td>11.5</td>
</tr>
<tr>
<td>Piscataquis</td>
<td>7,572</td>
<td>5,826</td>
<td>76.94</td>
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<tr>
<td>Franklin</td>
<td>11,684</td>
<td>6,196</td>
<td>53.03</td>
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<tr>
<td>Hancock</td>
<td>23,748</td>
<td>8,290</td>
<td>34.91</td>
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<tr>
<td>Waldo</td>
<td>16,820</td>
<td>5,395</td>
<td>32.07</td>
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<tr>
<td>Washington</td>
<td>14,065</td>
<td>4,399</td>
<td>31.28</td>
</tr>
<tr>
<td>Oxford</td>
<td>20,723</td>
<td>5,498</td>
<td>26.53</td>
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<tr>
<td>Somerset</td>
<td>21,376</td>
<td>4,917</td>
<td>23.00</td>
</tr>
<tr>
<td>Aroostook</td>
<td>29,852</td>
<td>5,080</td>
<td>17.02</td>
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<tr>
<td>Lincoln</td>
<td>15,021</td>
<td>1,385</td>
<td>9.22</td>
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<td>Penobscot</td>
<td>61,787</td>
<td>5,461</td>
<td>8.84</td>
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<td>Sagadahoc</td>
<td>15,613</td>
<td>1,366</td>
<td>8.75</td>
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<td>Knox</td>
<td>16,813</td>
<td>1,276</td>
<td>7.59</td>
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<tr>
<td>Kennebec</td>
<td>50,829</td>
<td>1,047</td>
<td>2.06</td>
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<tr>
<td>York</td>
<td>82,588</td>
<td>972</td>
<td>1.18</td>
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<tr>
<td>Cumberland</td>
<td>117,871</td>
<td>1,068</td>
<td>0.91</td>
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<tr>
<td>Androscoggin</td>
<td>44,747</td>
<td>318</td>
<td>0.71</td>
</tr>
</tbody>
</table>
Investing in rural broadband can help unite Maine. Voters believe Maine is divided among people who live in cities like Portland and people who live in smaller towns and more rural areas. Half say the state is extremely divided.
Mainers believe expanding high speed broadband internet access to all of Maine will have a positive impact on Maine’s economy.
Broadband infrastructure is placed based

Main street may have decent coverage but those who live in more rural areas might not have access to broadband infrastructure.

Premises per mile that take service is the primary economic driver for capital investment.

Low premise density means low return on investment potential.
Community Engagement, Premise Density, Take Rates, and Project Viability

Example 1 – no partnership – private sector only
- 20 premises per mile x 30% take rate x $65 month x 12 months = $4680/year in revenue from this mile of infrastructure
- Private sector takes all the risks and receives all of the benefits if more people buy service

Example 2 – public private partnership – engaged community
- 10 premises per mile x 60% take rate x $65 month x 12 months = $4680/year in revenue from this mile of infrastructure
- Community engagement allows providers to be more confident that the revenue projections will work and justify a capital expenditure

For areas where capital investment isn’t viable at higher take rates, public private partnership may need to lead to both an engaged community and financial support sufficient to build the infrastructure. The operations and maintenance costs for a project may approach (or in some cases, exceed) total revenue generated. This leaves little to no revenue to provide a return on private capital investments.
Eight out of ten voters in Maine support state incentives to expand high-speed internet service to unserved areas of the state. Half of all voters strongly support such incentives.

**Support for State Incentives to Expand High-speed Internet Access**

- **Strongly Support**: 49%
- **Somewhat Support**: 30%
- **Not Sure**: 7%
- **Somewhat Oppose**: 7%
- **Strongly Oppose**: 6%
- **Total Support**: 79%

Support for state broadband incentives increases with education and income.

Among all (n=600)

**Do you support or oppose state action to offer incentives to internet providers to expand high-speed internet service to rural areas that are not currently served?**
Maine Broadband Assets

• 3 Ring Binder
• Maine School Library Network
• Great providers/Vendors
• Engaged community leadership
• Maine Broadband Coalition
• ConnectMaine Authority
  • Community Planning
  • Infrastructure
• Momentum
The Connect Maine Action Plan

- Rewards in communities that are proactively work towards better internet
- Recognizes that community readiness can help entice private sector investment
- Stretches limited funding through public-private partnerships and matching requirements
- Prioritizes projects that build to “future proof” standards

Grants available for unserved – those without 25/3Mpbs – or underserved - those places where 80% of houses are unserved.
**ACTION D1:**
Provide a loan guarantee program for financers of broadband projects.

One way to make investment dollars go further is for the Finance Authority of Maine (FAME) to provide loan guarantee insurance to private lenders to high speed internet providers. This would enable lenders to be more aggressive in lending their money to rural projects. The creation of a loan guarantee fund would require a large upfront investment, but thereafter the fund would replenish itself as payments came in. More important, it would reduce the need for direct state subsidies. For example, the reserves needed to support high speed internet would be 20% of the total investment, so a $20m reserve will leverage $100m investment. Those reserves could revolve many times with solid projects.

**ACTION D2:**
Continue to provide local planning grants in order to help increase take rates and make projects more feasible.

An important program run by ConnectME provides planning assistance to local governments. These are used to assess local needs, generate local interest in participating (thus raising the take rate), and create a cost-efficient strategy. Currently there are 50 communities that have completed their plans and are awaiting the availability of ConnectME funds.

**ACTION D3:**
Provide a consistent, predictable, and robust annual level of ConnectME infrastructure grants.

Under its current program structure, ConnectME generally ends up contributing one dollar of state subsidy for every three dollars of private, local, and federal investment. The FAME guarantee program (Action D1) would be able to increase the amount of private match to public dollars. Even with the loan guarantee, however, a continued infrastructure grant program is needed.
Community engagement and planning is important and Maine’s process is nationally recognized as a promising practice.

Supporting local and regional planning efforts. Planning helps communities define broadband goals and needs and identify projects for funding. Conversely, funding also can help give communities the capacity necessary to undertake a focused broadband planning effort. Some state grants require or incentivize planning. Maine’s ConnectME Authority, for instance, provides grants to help municipalities and local and regional nonprofit organizations define community needs, understand existing assets in the community (such as poles and wireless towers that can support broadband deployment), and evaluate options for broadband service before initiating infrastructure projects. In states that do not provide planning support, a nonprofit or foundation partner may fill this role.

https://www.pewtrusts.org/en/research-and-analysis/reports/2020/02/how-states-are-expanding-broadband-access
In order to stabilize & sustain almost any industry in Maine, we need broadband statewide

- Invest in Maine’s nationally recognized planning grant process to help build public private partnerships and to make projects more financially viable through increased take rates.
- Add options to the capital stack through capitalizing a loan fund at FAME that provides private sector partners with subordinated debt and working capital and allows local public sector partners to move forward on meritorious projects without tying up municipal borrowing capacity.
- Stabilize Connect Maine’s funding sources at levels sufficient to meet the challenge.
- Support the public side of public-private partnerships at the local level