

January 8, 2010

VIA ELECTRONIC SUBMISSION

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Massachusetts Recommendations for Assisting State Broadband Organizations in National Broadband Plan
GN Doc. No. 09-47, No. 09-51, No. 09-137

Dear Ms. Dortch:

We are writing as follow-up to our meeting with Blair Levin on December 10, 2009. In our meeting, Mr. Levin invited us to provide suggestions on how the Federal Communications Commission (“FCC”) could help state organizations, like the Massachusetts Broadband Institute (“MBI”), achieve their broadband goals through measures that do not require additional federal funding or legislation. Having put considerable thought into the matter, and having sought input from several fellow state agencies within Massachusetts, we respectfully offer the following suggestions. Our recommendations fall into the categories below:

- Provide for Easier Permitting, Licensing and Right-of-Way Access
- Promote Project Collaboration and Sharing of Rights-of-Way
 - Encourage Joint Trenching Opportunities
 - Require Conduit Construction as part of DOT Projects
 - Facilitate Tower Access
 - Leverage Smart Grid Projects
 - Leverage E-Health Projects
- Facilitate Easier Access to Existing Infrastructure – Pole Attachments
- Pursue Reform of Universal Service – Including Overall Fund Reform and Inclusion of Broadband Access
- Require More Efficient Use of Spectrum
- Prioritize Public Safety Uses
- Compile and Share Best Practices and Other Educational Materials
- Create a Forum to Facilitate Collaboration Among States
- Provide Technical Advice

Provide for Easier Permitting, Licensing and Right-of-Way Access

To successfully implement a facilities-based broadband deployment project, a provider must place equipment and cabling across multiple geographic boundaries and jurisdictions. Permitting requirements and procedures that allow providers access to rights-of-way, utility poles, conduit and other assets, such as towers, are key to the efficient and streamlined deployment of broadband. However, such procedures vary greatly across cities, rights-of-way owners, and projects – increasing both the cost and deployment time of multi-jurisdictional broadband projects. The difficulties involved in negotiating and gaining access to the rights-of-way often prove to be the greatest impediment to the efficient, cost-effective, and timely deployment of broadband. This lack of standardization results in difficulty in estimating the actual time that will be required to secure access to rights of way.

Coupled with this rights of way access paradigm, the American Recovery and Reinvestment Act (“ARRA”) guidelines issued by the National Telecommunications and Information Administration (“NTIA”) for the Broadband Technology Opportunities Program (“BTOP”) require that all applicants propose project(s) that are technically feasible and able to be “substantially complete” within two years of all grant awards. Further, the federal eligibility guidelines require that any project requiring more than \$1 million in funding submit a project timeline certified by a professional engineer to ensure that proposed projects can be completed within the established timeframes. Projects that fail to meet the established timelines will forfeit their federal funding.

Given these challenges, the Commonwealth of Massachusetts passed Chapter 33 of the Acts of 2009, *An Act Relating to Economic Recovery Through Broadband Initiatives*, which made statutory changes to allow the Commonwealth to more efficiently deploy broadband and further enhance the value of our grant proposals, which are competing with other submissions across the nation for finite federal stimulus funds. Specifically, this Act allowed for some of the following changes:

- Authorized the MBI to use funds to acquire indefeasible rights of use of fiber facilities and FCC licenses;
- Clarified that petitions relative to the zoning of a communications or cable facility will be reviewed by the Massachusetts Department of Telecommunications and Cable and that petitions relative to all other types of public service facilities will be reviewed by the Massachusetts Department of Public Utilities;
- Clarified that the MBI may be exempt from local zoning by-laws or ordinances so long as the MBI is acting within the confines of its essential government functions; and
- Authorized a transfer of property to the MBI from another state agency to enable certain broadband initiatives.

Thanks to the leadership of Governor Deval Patrick and the Massachusetts Legislature, along with the Massachusetts federal delegation, we have made great progress in ensuring that the Commonwealth has the tools necessary to deploy broadband within the set timelines. To help us continue to make progress, we strongly encourage the FCC to examine issues related to rights-of-way, pole attachments, and tower access as it develops its National Broadband Plan (“NBP”), while maintaining states’ current regulatory authority over such matters.

Promote Project Collaboration and Sharing of Rights-of-Way

Whenever possible, the MBI has been collaborating with other state agencies to identify efficiencies and enhancements to reduce the cost and hasten the time to deploy broadband networks. We suggest that the FCC, along with sister federal agencies, collaborate to identify and encourage efficiencies and win/win solutions for diverse but closely-related problems.

Encourage Joint Trenching Opportunities

One of the most costly aspects of building a broadband network is the digging and trenching in roadways to place telecommunications conduit or direct-bury cables. We recommend that the FCC and other federal agencies promote policies that encourage, enable, and inform providers of joint trenching opportunities in roadways and railways.

In Massachusetts, we have experienced the firsthand benefits of this. Seizing on an opportunity to link an essential component of broadband deployment with the ongoing construction and repair of transportation systems, Congressman John Olver secured significant federal funding for the Massachusetts Department of Transportation (“MassDOT”) to construct an Intelligent Traffic System (“ITS”) along Interstate 91, which runs along a north-south axis in western Massachusetts between Connecticut and Vermont. Concurrent with the placement of conduit and cable for the ITS system, Congressman Olver ensured that MassDOT place conduit for the purposes of economic development and the future expansion of broadband networks in western Massachusetts.

As a result of Congressman Olver’s effort, the federal funding, and collaboration between the MBI and MassDOT, the MBI is currently installing 55 miles of fiber optic cable with 34 interconnection points along the entire Massachusetts stretch of I-91 as part of the MassDOT ITS project. Placing the MBI cable as part of the MassDOT project has saved the Commonwealth tremendous amounts of money and time. Accordingly, we recommend that the FCC and other federal agencies promote policies that help identify and encourage these types of joint trenching opportunities, including those in active railroads and recreational rail trails.

Require Conduit Construction as part of DOT Projects

We believe that the FCC should consider providing a mechanism to ensure that all U.S. Department of Transportation projects are deploying conduit, and that space is created for four cables. Two can be auctioned off to the private sector, one can remain empty for miscellaneous purposes, and one can be allocated to the federal and/or state government. This structure will continue to allow for expansion of fiber facilities and reduce deployment costs for federal and state communications infrastructure

Facilitate Tower Access

The MBI is working with the Massachusetts Department of Conservation and Recreation and the Massachusetts Executive Office of Public Safety and Security to enter into agreements that leverage the use of state-owned towers (*e.g.*, fire towers, telecommunications towers and public safety towers) for the deployment of wireless-based broadband equipment. We encourage the FCC to create model template agreements and provide technical assistance to organizations and entities interested in entering into these types of transactions. We also believe that states should be encouraged in the NBP to effectively leverage all existing state assets and remove department or agency “silos” that have prevented this elsewhere. This will significantly expedite the deployment of broadband networks.

Leverage Smart Grid Projects

Smart grid and broadband deployment projects face the similar challenge of building new digital networks that connect many homes to a vastly expanded network of information exchange. Because of the difficulties associated with obtaining licenses to make pole attachments in the communication gain on existing utility poles, combined with the shorter timeframes associated with the installation of telecommunications cable in the electric gain (there is usually far less make-ready work to prepare for fiber optic cable in the electric gain), we suggest that the FCC encourage broadband and smart grid projects that leverage each other. This could greatly expedite and reduce the costs associated with multiple projects that benefit from a common infrastructure.

Leverage E-Health Projects

The MBI’s proposed middle-mile network will help facilitate the deployment of health information technology solutions in western Massachusetts by providing connections for the major health institutions in the region. The deployment of electronic health records cannot occur without adequate broadband, and we encourage the FCC to find ways to promote collaborations that will save time and money for e-health and broadband projects.

Facilitate Easier Access to Existing Infrastructure - Pole Attachments

The MBI has found that the least expensive but often most expeditious way to build new networks is generally to lease space on existing utility-owned poles or within existing utility-owned conduit for the placement of cable or equipment. Despite statutory and regulatory authority over the pole attachment process, the local exchange carriers and major electric utilities retain much of the control over the attachment process¹ and reserve the right to deny access to poles for lack of capacity or for safety and reliability reasons. The federal and state governments generally intervene only when a complaint is filed. If it is determined that the rates, terms or conditions are unjust and/or unreasonable, the regulatory agency will mandate changes to the unreasonable rates, terms or conditions. If it is determined that the rates, terms or conditions are not unreasonable, dockets are generally dismissed in favor of the local exchange carrier or electric utility.

On the cable and telecommunications side, Verizon (as the incumbent local exchange carrier in western Massachusetts) wields considerable control over the attachment process. In Massachusetts, Verizon's pole attachment license application process consists of three parts: (1) adequacy (application process); (2) survey/make-ready work; and (3) agreement preparation/licensing.

From the process outlined above, the MBI, its consultants and EOHEd have identified three potential high-level impediments to the efficient and streamlined deployment of broadband in western Massachusetts:

- An ineffective and cumbersome internal application and assessment process within local exchange carriers and utility companies;
- An inability to have make-ready work completed and licenses issued within a reasonable or predictable timeframe; and
- Lack of access afforded to telecommunications providers to the electric or municipal space on utility poles.

Based on the impediments identified above, the MBI believes that the following changes would significantly reduce the barriers to broadband infrastructure deployment:

- 1) A more efficient application and assessment process

The lack of coordination between utilities, who jointly own poles, and application restrictions, such as the limit on the amount of poles allowed per application and per municipality, further delay the efficient deployment of cable and telecommunications service

¹ On average, the pole attachment application and approval process in Massachusetts takes between 225-390 days from start to finish, with many application schedules going well beyond 300 days.

in the Commonwealth. We recommend that the FCC create a universal application form for all attachments, regardless of where they exist on the pole. We also recommend that the FCC devise uniform rate structures.

2) A more efficient make-ready process

More often than not, completing the required make-ready work is a timely and costly impediment for applicants who are required to pay for work upfront and then have very little influence when the work is scheduled and completed. Whether it is due to labor issues with the utility or coordination problems between utilities of jointly-owned poles, applicants often find themselves waiting well beyond the 90-day timeframe for access to poles. We recommend that the FCC devise uniform make-ready timeframes.

3) Access to the electric or municipal gain on poles for telecommunications service providers

Unlike local exchange carriers, electric utilities are not required to allow telecommunications providers access to the electric gain on poles.² Affording telecommunications providers access to the electric gain on poles would require less make-ready work and would bypass the timely access requirements instituted by the local exchange carriers. Broadband projects designed to bring new, facilities-based service to unserved and underserved citizens should be allowed to utilize the municipal gain on telephone poles, particularly if they reserve capacity for municipal fire and police traffic.

Pursue Reform of Universal Service – Including Overall Fund Reform and Inclusion of Broadband Access

As an initial matter, Massachusetts supports reform of the universal service high-cost support mechanism that would promote economic efficiency and fairness, and believes that the current mechanism is no longer financially sustainable. Massachusetts supports a cap on high-cost support and elimination of the identical support rule. Complete elimination of support to competitive eligible telecommunications carriers (“ETCs”), however, would be discriminatory and unfair in that it provides incumbent local exchange carriers (“ILECs”) with an unfair competitive advantage in rural areas. We suggest that a more appropriate approach would be for the FCC to require

² On a voluntary basis, electric utilities sometimes afford telecommunications providers access to the electric gain. However, there is no set protocol or regulatory oversight mandating equal access and nondiscrimination.

competitive ETCs to receive support based on their own costs and to limit the number of competitive ETCs per support area. Both of these approaches would free up funding that could be utilized in other ways, such as for support of broadband in these areas. Furthermore, we recommend that the FCC consider remapping ILEC ETC service areas into smaller segments, where the funding mechanism takes into account customers' ability to pay, and relative costs and rates between rural and urban areas within the state. This method would help to redistribute high-cost funding and permit net-contributor states, such as Massachusetts, to receive more high-cost funding support that can be directly targeted to its rural areas. We believe that ultimately, universal service policy should be designed to maintain or increase subscribership – not to transfer wealth from low-cost to high-cost regions.

If the FCC were to incorporate broadband access into high-cost support, then we recommend that it consider establishing a separate broadband fund for that purpose. For example, the MBI recommends that the FCC revisit the creation of a Broadband Fund comparable to that proposed by the Federal-State Joint Board on Universal Service in 2007.³ Alternatively, we encourage the FCC to consider alternative proposals to include broadband access as part of the Universal Service Fund. We further agree with the Joint Board's recommendation that a Broadband Fund should be tasked primarily with disseminating broadband Internet services to unserved areas, with the support being expended as grants for the construction of new facilities in those unserved areas. A secondary purpose would be to provide grants for the new construction to enhance broadband service in areas with substandard service. Another secondary purpose would be to provide continuing operating subsidies to broadband Internet providers serving areas where low customer density would suggest that a plausible economic case cannot be made to operate broadband facilities, even after receiving a substantial construction subsidy. Alternatively, we recommend that the FCC consider seeking a renewed recommendation from the Federal-State Joint Board on Universal Service.

Ultimately, states are well-positioned to effectively administer such a program, and the MBI suggests that monies first be allocated to the states, and thereafter awarded by designated state agencies, such as the MBI, to finance particular construction projects of broadband providers. Available funding should not be limited to traditional telecommunications carriers but should be made available, as deemed a strategic investment by the states, to other types of companies with a demonstrated capability to support broadband deployment.

³ *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, CC Docket No. 96-45, Recommended Decision, (JB 2007) ("Comprehensive Reform Recommended Decision").

Require More Efficient Use of Spectrum

While recognizing the FCC's express jurisdiction over spectrum licensing and allocation, potential opportunities for collaboration with states exist that could encourage and promote more efficient use of spectrum for broadband-related purposes.

In Massachusetts, many of the larger Major Trading Area, Economic Area, and Regional Economic Area licenses that cover the western portion of Massachusetts (where lack of broadband is most prevalent) are held by carriers that do not sell service in the area, creating an opportunity to sublease or transfer portions of their licenses to other carriers. State broadband agencies, such as the MBI, are ideally situated to identify and facilitate spectrum leasing arrangements and public-private partnership opportunities in unserved and underserved areas. We recommend that the FCC take steps to encourage licensee participation in such arrangements wherever possible, including revisiting the FCC's Secondary Market Initiative. In addition, we recommend that the FCC consider giving states the authority to collect state-specific spectrum usage data directly from licensees to further promote maximum usage and encourage the development of secondary markets.

As a more general matter, we caution against putting too much faith in wireless as an end-all solution. Currently, shared spectrum is able to handle much of the needs of customers. As bandwidth demand continues to skyrocket, however, the limited spectrum availability and shared nature of spectrum will limit the amount of bandwidth customers can receive relative to landline solutions. Wired infrastructure for backhaul will continue to be particularly important for public safety purposes.

Prioritize Public Safety Uses

We believe that any plan must prioritize the needs of public safety. The demands of Next Generation 911 and information analysis and sharing alone require a dramatically increased amount of bandwidth that is both secure and resilient. The best solution to this is likely a plan that creates national standards but allows for development and partnership on a state or large urban area basis. We further believe that this enhanced public safety capacity is most likely to happen in a timely manner, while remaining cost-effective and creating a sustainable model, if it is designed as part of a shared wired network not uniquely dedicated to public safety and leverages spectrum dedicated to multiple users.

The Commonwealth's recommendations for public safety-related broadband priorities are more thoroughly discussed in the comments filed by EOHEd in response to the Joint Request For Information issued by the Rural Utilities Service and the NTIA that was published in the *Federal Register* on November 16, 2009.⁴

⁴ RUS and NTIA Joint Request for Information, Docket Number 0907141137-91375-05. EOHEd's comments are posted at: <http://www.ntia.doc.gov/broadbandgrants/comments/rfi2/RUS%20-%20NTIA%20Joint%20RFI%20Comments%20from%20Massachusetts%20EOHEd.pdf>

Compile and Share Best Practices and Other Educational Materials

In devising the NBP, the FCC's NBP Task Force has conducted an unprecedented, extensive examination into many aspects related to broadband. Organizations like the MBI could benefit significantly from the knowledge obtained by the NBP Task Force through its research, workshops, meetings, and other activities over the past several months. Accordingly, we encourage the FCC to find effective ways to share what the NBP Task Force has learned. More specifically, we would be interested in learning more about:

- Successful and sustainable business models for broadband;
- Broadband deployment cost benchmarks;
- Broadband job creation and economic growth models;
- Model solutions for challenging broadband deployments; and
- Benefits and limitations of various broadband technologies.

Create a Forum to Facilitate Collaboration Among States

The creation of BTOP and the Broadband Incentives Program has fostered a lively, national discussion about matters related to broadband expansion which, in turn, has spawned creative ideas and solutions. To facilitate the continued flow of this type of information, we recommend that the FCC create a forum, directory or other avenue that will encourage collaboration among people, companies and organizations that are deploying broadband infrastructure and implementing adoption projects. The NBP Task Force is in a position where it can effectively lead these types of discussions. We recommend that the FCC develop a tool similar to the "Broadband Match" tool that the NTIA and the RUS recently launched to facilitate partnerships among ARRA grant applicants.

Provide Technical Advice

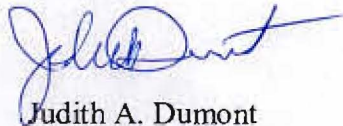
Unserved and underserved regions throughout the nation face unique challenges that require creative solutions. The individuals on the NBP Task Force represent some of the most knowledgeable and insightful minds on broadband-related matters, and small organizations like the MBI have limited access to individuals with this level of expertise. An opportunity to discuss specific field challenges with these individuals would be tremendously valuable. Access to your subject experts would help improve the quality of deployments and programming, and it would reduce the need for small organizations like the MBI to engage expensive consulting assistance.

Again, thank you for the opportunity to provide these recommendations as follow-up to our meeting with Mr. Levin on December 10. We hope that you find them helpful as the FCC develops the NBP and facilitates the deployment of broadband throughout the

Ms. Marlene H. Dortch
January 8, 2010
Page 10

nation. If you have any questions, or if we can be of any further assistance, please do not hesitate to contact me.

Sincerely,



Judith A. Dumont
Director
Massachusetts Broadband Institute

cc: Blair Levin, *Executive Director, FCC Omnibus Broadband Initiative*
C. Stanley McGee, *Massachusetts EOHEE Assistant Secretary for Policy and Planning*