

**TESTIMONY IN SUPPORT OF HOUSE BILL, NO. 4311, AN ACT ESTABLISHING
AND FUNDING THE MASSACHUSETTS BROADBAND INSTITUTE**

JOINT COMMITTEE ON BONDING, CAPITAL EXPENDITURES AND STATE ASSETS

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IN SUPPORT OF HOUSE BILL, NO. 4311, *AN ACT ESTABLISHING AND FUNDING
THE MASSACHUSETTS BROADBAND INSTITUTE*

Chairman Montigny, Chairman Flynn and Members of the Committee, good day. I would like to thank you for the opportunity to appear before your committee today to testify in support of House Bill, No. 4311.

Since others have already spoken to the urgency of the problems that this legislation addresses, I would like to focus on the solution; specifically, what the legislation consists of and why it is an appropriate, attractive, and sound solution for bringing broadband to the people and businesses of the Commonwealth who cannot get it today.

The legislation authorizes up to \$25 million for a Massachusetts Broadband Incentive Fund. What I would like to detail for you is the public-private partnership model that provides the conceptual framework for how this Fund is to be spent. The legislation is based on a co-investment model. It uses bond-funded investments as an incentive to stimulate complementary private investments that, when taken together, will bring broadband service to currently un-served areas. The Fund itself will invest in the long-lived and capital-intensive elements of broadband infrastructure, such as fiber-optic communication lines, wireless communication towers, and underground conduits. Each of these elements of broadband network infrastructure has a useful lifetime of 20-40 years, making it a suitable asset in which to invest long-term bond funding. To reach and serve users, however, additional infrastructure will also be necessary, such as the electronic devices that must be connected to fiber-optic cable to send communications signals over it; the wireless devices that must be installed on a tower to send and receive communication signals to users' computers; and the network monitoring and call centers that ensure quality service to subscribers. The Fund's objective is to partner with private firms willing to make those shorter-term investments. Partners will be able to provide broadband service to users because they will be able to lease or license use of the Commonwealth's assets to complement their own investments in assembling a complete broadband network and service offering. The Commonwealth itself will ***not***

serve as a retail broadband provider, and will be open to partnerships involving any technology that can get the job done.

Since this conceptual model may be unfamiliar to members of the Committee, allow me to illustrate it for you with a specific example, the Northlink project that is already underway in northern Vermont. This region is similar to western Massachusetts in being both sparsely populated and minimally served with broadband infrastructure. Northlink has leveraged \$4 million in public funds to secure another \$6 million of private partnership commitments to date, with up to \$40 million more anticipated. The public funds are being used to build a ring of fiber-optic communications lines that will serve as a communications “backbone” for the region. Private partners are investing in the electronics needed to send their communications signals over the fiber, as well as the so-called “last-mile” infrastructure necessary to connect businesses and homes to the fiber ring. The discipline of Northlink is to concentrate public dollars only on the big up-front investments that are uneconomical for any one private entity to undertake individually, but which produce benefits for all, including any firm that is willing to make incremental co-investments in the complementary infrastructure needed to build a complete network and provide service to customers. Northlink’s director likens the strategy to the traditional approach of economic development agencies to water and sewer network construction, in which the public entity builds a community’s water main, and private entities pay for their own hookups to it.

With the construction of the fiber ring well underway, Northlink has already established partnerships with the local electric cooperative as well as regional medical centers and telecommunications carriers. In addition, at least eight Internet Service providers and three tower owners have expressed serious interest in last-mile partnerships with Northlink. Most, but by no means all, of those Internet Service Providers intend to use wireless technologies to reach users. Northlink partnerships are available to any potential co-investor, including incumbent providers of telephone or cable television services. The success of this project has made it a model for Vermont’s e-state initiative, passed by the Vermont General Assembly in Act 79 of 2007, which established a Vermont Telecommunications Authority to administer \$40 million in bond authorizations to address gaps in broadband as well as cellular coverage. Vermont anticipates that their \$40 million investment will leverage up to \$200 million in private investment in infrastructure in their state.

I describe the northern Vermont experience to you only as an example of how the co-investment model works in practice; no two projects of this magnitude are ever exactly alike in all of their details, particularly because the specifics of their funding vehicles will differ. However, the Massachusetts Broadband Incentive Fund already shares several of the approaches that have made the Northlink project successful. First, both initiatives are carefully crafted to target public dollars towards creation of local jobs, not towards

competition with the private sector. For example, the design and engineering of Northlink's fiber ring have already been contracted out to a private company that specializes in fiber construction, while the operations and maintenance will be contracted out as well once the construction is completed. Second, the legislation gives the Massachusetts Broadband Institute, steward of the Fund, the necessary flexibility to develop public-private partnerships that work. The variety of partnerships that Northlink has been able to establish – with partners as different as regional medical centers, major telecommunications carriers, and small Internet Service Providers – are a testament to the value of this kind of flexibility. Finally, the Massachusetts Broadband Incentive Fund shares with Northlink the fact that both have attracted significant and serious interest from co-investment partners. Nearly a hundred firms, including telecommunications providers, equipment vendors, and investors, have asked to be kept updated on the progress of the Massachusetts broadband legislation since it was first announced in August 2007. And nearly twenty of those firms have already invested time and effort in meeting with the Executive Office of Housing and Economic Development, along with the Department of Telecommunications and Cable, to learn more about the proposal and begin planning their approaches to partnership with the Commonwealth.

The co-investment solution proposed in this legislation is innovative but not untested. It is informed not only by what has worked well elsewhere, but also by what has not. For example, Michigan recently discontinued a broadband loan program originally enacted in 2002. Michigan had a \$50 million authorization to provide loans for private companies, but given the high costs of construction and the sparse populations in very rural areas, low-cost loans did not provide sufficient incentives for private providers and much of the fund went unallocated. This program ultimately failed to improve broadband access significantly because of its over-reliance on private sector investments and returns. Michigan's program did not have the flexibility that the Massachusetts Broadband Incentive Fund does have to address the long-term capital needs involved in deployment of broadband infrastructure. Even more important, the loan program did not allow Michigan to capture the returns on broadband investment that accrue to all of us, not just broadband providers.

Such returns take the form of economic development, accessible government, enhanced education, reliable public safety, and high quality and affordable health care. Broadband is essential to economic development because broadband is now a "must have" item in corporate location decisions. No 21st century company wants to locate in a region where its executives can't respond to emails from home and its employees' children can't access online resources required for their homework. Governor Patrick mentioned earlier the kinds of state government operating efficiencies, such as a \$300,000 annual savings at the Department of Revenue, that can be expected once every town hall can rely on access to broadband. The Governor also mentioned that

research, some of which I conducted with colleagues at the Massachusetts Institute of Technology before I became the Commissioner of Telecommunications and Cable, has shown real economic impacts from broadband availability. Our study at M.I.T. found that property values were 6% higher in communities with broadband, even after controlling for other differences among communities.

Ubiquitous broadband will enable Massachusetts to be economically competitive in the 21st century, just as electricity and other utilities did in the 20th century. In today's global economy, we are not just competing with other states – we are competing with knowledge-based economies in countries like Korea and Japan, where broadband is not only available to businesses and citizens at significantly higher speeds, but also at much lower cost. In these two countries alone, return on their public investment in broadband has catapulted them far beyond the United States, fostering economic growth in new “creative economy” industries such as gaming and digital media. Broadband has proven to be an engine for economic growth in these countries, in both expected and unforeseen ways, and it is time for all of Massachusetts to reap the same benefits.

A unique and comprehensive solution is needed, and Massachusetts has the opportunity here to take the lead by achieving universal broadband connectivity in the Commonwealth. I would like to leave you with my thoughts on four key reasons why the solution proposed in this legislation is an appropriate one. First, the solution addresses the root cause of the problem, fixing the market failure caused by the unfavorable economics of broadband network deployment in rural areas. As we have seen from the poor industry response to other state and federal broadband loan programs, the market failures in rural Massachusetts will not be solved without the Commonwealth's investments. Second, the legislation proposes a one-time investment that will provide ongoing benefits. The Commonwealth's investment will not just close a gap at a single point in time, but will also stimulate private investments to prevent gaps from re-opening in the future. Third, the investment is designed to be self-sustaining, with lease or license fees for use of the Commonwealth's assets eventually covering any minimal operational expense associated with the investment. Finally, this legislation is appropriate because it is structured for success, as evidenced by the strong interest this proposal has generated from potential co-investment partners.

Again, I thank you for the opportunity to testify before you all today. It is my hope that you recognize the importance that this legislation has for the future of Massachusetts. To this end, I would ask the committee to favorably report this measure.

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