

**Recommendations of the
Massachusetts Broadband Institute, Massachusetts Department of
Telecommunications and Cable, and Vermont Department of Public Service**

These joint comments are filed in response to the joint request for information issued by the National Telecommunications and Information Administration (“NTIA”) and the Rural Utilities Service (“RUS”) and printed in the Federal Register on March 12, 2009.

_____/s/
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_____/s/
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_____/s/
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Responses to Specific NTIA Questions:

1. Purposes

- a. Should a certain percentage of grant funds be apportioned to each category?

No. NTIA should award funds to projects that best accomplish the stated purposes of the Act.

- b. Should applicants be encouraged to address more than one purpose?

Yes, but this should not be required. Broadband is by its nature a general-purpose infrastructure. Because of this, any broadband deployment project will almost certainly meet many of the purposes laid out in the statute (such as better public safety, education and health care) even if the application does not include explicit programmatic components to this effect. Single purpose applications should be the exception, not the rule.

2. Role of States

- a. How should the grant program consider State priorities in awarding grants?

Defer to the state's eligible entity to determine priorities. For instance, in Massachusetts, the Massachusetts Broadband Institute ("MBI") (www.masstech.org/broadband) will serve as the Governor's point of contact with federal agencies regarding broadband stimulus funding and will be designated as the "eligible entity" for implementing the provisions of the Broadband Data Improvement Act, once the NTIA advises states on the appropriate mechanism for this designation. Furthermore, on March 2, 2009, Governor James Douglas announced the creation of the Office of Economic Stimulus and Recovery (ESR) to coordinate Vermont's use of federal funds authorized by the ARRA, including competitive broadband stimulus funding opportunities.

In addition, we support the recommendations filed with NTIA by the National Association of Regulatory Utility Commissioners ("NARUC") on April 3, 2009, available at <http://www.ntia.doc.gov/broadbandgrants/comments/6B29.pdf>. Should the NTIA adopt a process such as the one advocated by NARUC, it should allow projects in states who are in a position to complete their reviews of applications submitted in an expedited manner to draw on stimulus funding on an accelerated schedule commensurate with the speed which the states are able to complete their reviews. This will allow the NTIA to benefit from planning and preparation which has already been completed in states such as Massachusetts and Vermont. It is also most consistent with the ARRA's preference for quick-start activities.

- b. What is the appropriate role for States in selecting projects for funding?

States should play 2 separate roles. First, states that have or are organizing public-private partnerships should be allowed to serve as “aggregators” for regionally-based or otherwise larger projects. All of the entities (both public and private) that are working together in partnership should be allowed to apply to NTIA as a group. Second, eligible entities in states should be consulted by NTIA to “vet” proposals from other entities that are not part of a state-led partnership. This approach will help NTIA sort out high quality, truly “shovel-ready” proposals as well as ensure that the most pressing needs are addressed within each state.

- c. How should NTIA resolve differences among groups or constituencies within a State in establishing priorities for funding?

We recommend that each governor be asked to designate one point of contact for the state for the grant programs, and that NTIA defer to that entity. This entity can be, but should not have to be, the same as the eligible entity designated according to the BDIA (mapping) provisions.

- d. How should NTIA ensure that projects proposed by States are well-executed and produce worthwhile and measurable results?

NTIA should design standardized forms and mechanisms for progress reporting, and should enforce claw-back provisions based on this reporting. Furthermore, NTIA should ensure adequate oversight and monitoring by providing for states to cover some portion of their administrative costs associated with implementation of the ARRA/BTOP provisions.

3. Eligible Grant Recipients

What standard should NTIA apply to determine whether it is in the public interest that entities other than those described in Section 6001(e)(1)(A) and (B) should be eligible for grant awards?

At minimum, a private firm’s participation in BTOP should be considered as in the public interest when: (a) that private firm is acting in partnership with a public entity; or, (b) the firm is applying to serve otherwise unserved citizens (where unserved means no facilities-based Internet access other than dial-up or satellite-based access); or, (c) the firm’s offering would improve the quality or affordability of broadband in an area. Quality should be judged along multiple dimensions including bandwidth (in either direction), redundancy, reliability, affordability and mobility.

4. Selection Criteria

- a. How can NTIA determine that a Federal funding need exists and that private investment is not displaced?

NTIA should consider historical investment patterns in the affected region as part of this determination.

How should the long-term feasibility of the investment be judged?

NTIA could consider requiring financial modeling as part of the grant application, however they should keep any such requirements from becoming unduly burdensome for smaller applicants. Additionally, NTIA should encourage applicants to evaluate the ease of upgrading a chosen infrastructure or technology and its overall scalability over the longer term. The long-term feasibility of an investment should be judged highly if it is an infrastructure or technology that can be upgraded easily over the years to accommodate higher speeds, bandwidth, and more customers and applications.

- c. How should the BTOP prioritize proposals that serve underserved or unserved areas?

BTOP should prioritize projects that bring new, affordable, next-generation infrastructure and services to unserved and underserved communities while at the same time connecting those communities to the broader region, integrating them with existing infrastructure, and building redundancy into their networks. Projects that make “middle-mile” or “backhaul” connections more robust and affordable can be just as important as “last-mile” projects in remote areas. The NTIA should support projects that add service to already served areas if that is necessary to reach the unserved areas for technical or economic reasons. The highest priority should be on unserved areas.

- d. Should priority be given to proposals that leverage other Recovery Act projects?

Priority should be given to proposals that leverage other ARRA projects if the broadband piece is an essential element of another project, or if it is afforded significant cost savings as a part of another project vs., implementation as a stand-alone.

- f. What factors should be given priority in determining whether proposals will encourage sustainable adoption of broadband service?

Proposals are more likely to encourage sustainable adoption of broadband if they incorporate, for instance, mechanisms to ensure accessibility, reliability and affordability of hardware and/or service. Individual states should determine

if a project fulfills a specific goal of the area such as community or economic development.

- g. Should the fact that different technologies can provide different service characteristics, such as speed and use of dedicated or shared links, be considered given the statute's direction that, to the extent practicable, the purposes of the statute should be promoted in a technologically neutral fashion?

Technology neutral does not mean "quality" neutral – rather it should be interpreted as meaning that no single broadband industry segment (e.g. telco or cable) should be favored. Proposals should be favored that provide the best value in terms of quality offered relative to cost incurred.

- h. What role, if any, should retail price play in the grant program?

Lower is better, but, again, price needs to be judged relative to the quality offered.¹

5. Grant Mechanics

- a. What mechanisms for distributing stimulus funds should be used by NTIA and USDA in addition to traditional grant and loan programs?

Application directions and guideline documents should be kept short and simple. To encourage rapid disbursement of funds, the NTIA should use a "rolling" approval process that would allow strong applications filed early to receive an early funding decision, up to a percentage of each round's available funds.² If the NTIA establishes a standard state allocation, NTIA should allow expedited funding for projects up to the standard state allocation in states which can conduct an expedited review. The NTIA should also establish a final application deadline in each grant round.

Given that multiple application rounds are planned, winning proposals should be published after each round and agencies should promote knowledge sharing regarding application best practices in order to avoid repetition of mistakes or to avoid poor quality applications in subsequent rounds. In addition, agencies should allow electronic or paper submission.

Finally, RUS and NTIA should have the same grant process, and, in order to ensure efficiency within the process, applications to both agencies should be coordinated to be as similar as possible.

¹ Note California's use of standard "\$ per Mbps per month" metric in comparing broadband service price offerings in their Broadband Task Force report. See http://www.calink.ca.gov/xls/CBTF_PricingSurvey_2007.xls

² Somewhat like a college admissions process, some less strong applications may be "wait-listed" by either NTIA or state reviewers until the end of a funding round.

- b. How would these mechanisms address shortcomings, if any, in traditional grant or loan mechanisms in the context of the Recovery Act?

NTIA could also consider allocating a portion of the funding up front to states to get funds out quickly. A particularly valuable use of such grants would be for technical assistance. The state's broadband point of contact would identify the unserved and underserved communities and regions that need assistance with developing "broadband-friendly" ordinances for local issues such as zoning, siting, and right-of-way management.

6. Grants for Expanding Public Computer Center Capacity

- a. What selection criteria should be applied to ensure the success of this aspect of the program?

Allow these applications to be bundled within infrastructure grants, instead of requiring separate applications for this purpose.

- b. What additional institutions other than community colleges and public libraries should be considered as eligible recipients under this program?

Town halls, schools, hospitals, public health and public safety buildings and other community anchor institutions. Flexibility is warranted here since the smallest unserved communities may have neither a community college nor library located nearby, and may effectively use a different institution (e.g. town hall, community center, elementary school) to serve the equivalent purpose of providing a communal point of access to broadband.

7. Grants for Innovative Programs to Encourage Sustainable Adoption

NTIA should consult with each state's broadband point of contact regarding the quality of proposals from within the state's borders.

- b. What measures should be used to determine whether such innovative programs have succeeded in creating sustainable adoption of broadband services?

States should issue guidelines that describe the specific metrics required to meet their statewide goals. At a minimum, metrics must be maintained that indicate take rates where new service becomes available and whether the new consumers participated in programs that lead to adoption.

- 8. Broadband Mapping** The Recovery Act directs NTIA to establish a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial provider or public provider throughout each State.

NTIA should provide a standard form for designating the state's eligible entity for receipt of broadband mapping funds.

- a. What uses should such a map be capable of serving?

Such a map should, through the use of GIS layers and overlays, be able to identify (a) locations (ideally addresses) without broadband service; (b) the level of service at any given served location (at a minimum identifying the number of competitors, bandwidth, and price available); (c) progress over time.

- b. What specific information should the broadband map contain, and should the map provide different types of information to different users (e.g., consumers versus governmental entities)?

See answer to a. For clarity, multiple maps should be produced to illustrate different dimensions of broadband, such as availability, affordability, or quality. The terrestrial broadband map and geospatial datasets should include the following elements:

- 1) Roads showing all E-911 locations*
- 2) Road segments coded as to their availability of DSL, cable, or fiber Internet service*
- 3) Anticipated speeds for each service type*

Fixed and mobile wireless maps should include the following:

- 1) Frequencies*
- 2) Locations of all towers*
- 3) Signal Strength*
- 4) Direction of antennae*
- 5) Anticipated speeds*
- 6) Name of service provider*
- 7) Mobile platform LTE, CDMA etc.*

WiFi Hotspots that are open to the public should be identified if they are publicly owned and freely accessible.

- c. At what level of geographic or other granularity should the broadband map provide information on broadband service?

The question first to answer is how should broadband data be collected. Ideally, data collection should occur at the address level. Specifically, if information is collected uniformly at the street/address level, then the data can be aggregated in different forms (town, county, area code, etc...) and be utilized more efficiently when it is represented on a map. For instance, this type of collection will allow diversity in how different regions of the country/states represent their localities.

For additional mapping information and recommendations, please refer to the comments filed with NTIA by the Vermont Center for Geographic Information (“VCGI”) on April 7, 2009, available at <http://www.ntia.doc.gov/broadbandgrants/comments/6ED0.pdf>.

In addition, please also refer to the Joint Comments of the Massachusetts Department of Telecommunications and Cable and the Massachusetts Geographic Information System filed last year in the FCC’s WC Docket No. 07-38, In the Matter of Development of Nationwide Broadband Data To Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriberhip Data, and Development of Data on Interconnected Voice over Internet Protocol (VOIP) Subscriberhip, available at http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6520036652. These earlier FCC comments specifically respond to certain comments addressing the FCC’s tentative conclusion “that the Commission should collect information that providers use to respond to prospective customers to determine on an address-by-address basis whether service is available,” and its question “on what standardized formats could be used to collect the information.”

- d. What other factors should NTIA take into consideration in fulfilling the requirements of the Broadband Data Improvement Act, Pub. L. No. 110-385 (2008)?

Clarify that states can compel and receive the same information about broadband deployment as federal authorities. The NTIA and the FCC should work collaboratively to modify rules and regulations pertaining to reporting requirements for broadband and telecommunications providers. Data collection methods must be consistent and comparable. Companies must be required to submit complete and accurate information, and at a higher level of detail than is currently defined in FCC Form 477. Currently, Form 477 Census Tract level information provides insufficient detail in rural areas.

- g. What technical specifications should be required of State grantees to ensure that statewide inventory maps can be efficiently rolled up into a searchable national broadband database to be made available on NTIA's Web site no later than February 2011?

The NTIA should develop a consistent GIS data model that can store the information outlined in our responses above.

- h. Should other conditions attach to statewide inventory grants?

All broadband inventory data must be in a standardize geospatial format and be available in the public domain.

- 9. Financial Contributions by Grant Applicants:** The Recovery Act requires that the Federal share of funding for any proposal may not exceed 80 percent of the total grant. The Recovery Act also requires that applicants demonstrate that their proposals would not have been implemented during the grant period without Federal assistance. The Recovery Act allows for an increase in the Federal share beyond 80 percent if the applicant petitions NTIA and demonstrates financial need.

- c. What showing should be necessary to demonstrate that the proposal would not have been implemented without Federal assistance?

The applicant should show that little or no broadband service is available in the particular area(s), since this lack of service is likely a significant indicator that the market would not or could not enter these territories without financial assistance.

- 12. Coordination with USDA's Broadband Grant Program:** The Recovery Act directs USDA's Rural Development Office to distribute \$2.5 billion dollars in loans, loan guarantees, and grants for broadband deployment. The stated focus of the USDA's program is economic development in rural areas. NTIA has broad authority in its grant program to award grants throughout the United States. Although the two programs have different statutory structures, the programs have many similar purposes, namely the promotion of economic development based on deployment of broadband service and technologies.

- a. What specific programmatic elements should both agencies adopt to ensure that grant funds are utilized in the most effective and efficient manner?

Both agencies should defer to state priorities. Priority or favor should be given to non-single purpose projects, as discussed earlier in the response to Question 1(b).

- b. In cases where proposals encompass both rural and non-rural areas, what programmatic elements should the agencies establish to ensure that worthy projects are funded by one or both programs in the most cost effective manner without unjustly enriching the applicant(s)?

The application should be the same or substantially similar for both organizations, and there must be a shared database that allows each agency to see what stage each applicant is in, how much, if any, has been awarded and for which aspects of the project. The database must be updated with benchmark or accountability information, for both agencies to consider in the event that the entity applies for a second round of funding.

13. Definitions: The Conference Report on the Recovery Act states that NTIA should consult with the FCC on defining the terms “unserved area,” “underserved area,” and “broadband.” The Recovery Act also requires that NTIA shall, in coordination with the FCC, publish nondiscrimination and network interconnection obligations that shall be contractual conditions of grant awards, including, at a minimum, adherence to the principles contained in the FCC’s broadband policy statement (FCC 05-15, adopted August 5, 2005).

- a. For purposes of the BTOP, how should NTIA, in consultation with the FCC, define the terms “unserved area” and “underserved area?”

A definition of “unserved” and “underserved” first requires a definition of “broadband.” In regards to “area” designations, these should be state-dependent. For instance, Massachusetts designates many of its programs by town. In contrast, other states may more often delineate areas by county or other designated categorizations.

Unserved: “Unserved” should be defined as an area where citizens have no facilities-based Internet access other than dial-up or satellite-based access.

Underserved: “Underserved” should be defined as an area (see above) where broadband is physically or functionally unavailable to a segment of the population. Physical unavailability is obvious - if any members of the defined area do not have access to broadband, then it is physically unavailable to that segment of the population. Functional unavailability means that, although broadband may be physically available to certain residents or businesses, in practice the broadband service is not used or is functionally inaccessible to those residents. There may be many reasons why broadband is available but not used, and these reasons may include such factors as service quality, affordability and lack of competitive choices. In addition, one way to measure functional availability may be to measure penetration rates – for example, penetration rates a certain level below a state average may be an indicator of functional unavailability.

b. How should the BTOP define “broadband service?”

- (1) Should the BTOP establish threshold transmission speeds for purposes of analyzing whether an area is “unserved” or “underserved” and prioritizing grant awards?

NTIA should take different factors into account when determining whether an area is “unserved” or “underserved” (please refer to the above response to Question 13(a)).

In regards to grant awards, the BTOP should not necessarily establish minimum threshold speeds but should, instead, support those proposals that would establish the highest speed(s) for the best price in a particular area. In addition, technology platform is just one of the numerous factors that can be measured. For instance, grant determinations should also simultaneously take into account other factors such as redundancy, mobility, competitive choices, scalability, ability to build upon the new or existing network, affordability, etc. BTOP, however, should consider the price for service at particular speeds in areas. If, for example, the a speed of service is 528k but that level of service costs a customer \$60/month, then that area is essentially underserved by virtue of a lack of affordable speed.

Should thresholds be rigid or flexible?

Flexible.

- (2) Should the BTOP establish different threshold speeds for different technology platforms?

No. Refer to the response to Question 13(b)(1) above.

- (3) What should any such threshold speed(s) be, and how should they be measured and evaluated (e.g., advertised speed, average speed, typical speed, maximum speed)?

Speed should be measured by average speed during peak usage. There must be a nationally accepted standard set of criteria, for example, speed tested on a wired network, and measured by a standardized tool to a certain website at the same time of day.

- (4) Should the threshold speeds be symmetrical or asymmetrical?

This should simply be considered another factor to weigh when allocating grant awards, though more symmetrical speeds should be encouraged.

- c. How should the BTOP define the nondiscrimination and network interconnection obligations that will be contractual conditions of grants awarded under Section 6001?
- (2) Should the network interconnection obligation be based on existing statutory schemes? If not, what should the interconnection obligation be?
 - (3) Should there be different nondiscrimination and network interconnection standards for different technology platforms?

Any interconnection obligations for new network providers should be the same as obligations currently required of existing providers under federal law, and may change over time as the legal requirements evolve. There should not be a new set of interconnection rules, different and apart from what currently exists, for purposes of these grants. In addition, consistent with existing federal law, the NTIA/RUS should be clear that telecommunications service interconnection obligations apply if a service provider has not been classified as an information service provider and is subject to some telecommunications service obligations, even if that service provider has not expressly been classified as a telecommunications service provider.

General Information about Broadband in Massachusetts:

- Initial mapping exercise conducted after Governor Deval Patrick took office in 2007 showed that of 351 cities and towns in MA, 32 had no broadband, and 63 more were only partially served.
 - Most unserved citizens live in the rural western portion of the state. Ubiquitous, affordable broadband access is a top economic development priority for the Governor and western MA legislators.
- On August 4, 2008, Governor Patrick created a broadband authority for Massachusetts by signing Chapter 231 of the Acts of 2008, *An Act Establishing and Funding the Massachusetts Broadband Institute*.
 - The Institute (MBI), a quasi-public agency, is staffing up, has a full Board of Directors, and has already completed a “Call for Solutions” (RFI) process for western MA. www.masstech.org/broadband
 - MBI is currently engaged in more detailed mapping of broadband gaps in western MA, as well as working with other state agencies – including MassHighway, the Executive Office of Public Safety and Security, and the Executive Office of Education – to identify opportunities for synergies and sharing of resources.
 - MBI will serve as the Governor’s point of contact with federal agencies regarding broadband stimulus funding, and will be designated as the “eligible entity” for implementing the provisions of the Broadband Data Improvement Act (BDIA), once NTIA advises states on the appropriate mechanism for this designation.
- The Act provides for up to \$40 million in state bonding authorization for the purpose of closing broadband gaps, relying on a regionally-based, co-investment model of public-private partnership.
 - Stimulus funds can particularly help “unfreeze” private investments essential to the partnership. We recommend that NTIA allow state funds, as well as contribution of other state resources such as use of a highway right of way, to satisfy the matching requirement for private partner firms proposing to co-invest with the state.
- More information
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 - Stan McGee, Assistant Secretary for Policy and Planning, Executive Office of Housing and Economic Development, stan.mcgee@state.ma.us
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General Information about Broadband in Vermont:

- 2000 First map at town level indicating towns that had some cable or DSL
- 2004 Initial broadband mapping project using data collected from cable, DSL and fixed wireless providers
- 2006 Second estimated broadband coverage map
- 2007 Vermont Legislature established Vermont Telecom Authority to achieve following goals:
 - High speed Internet access to all homes and businesses and mobile Internet access and voice coverage by year end 2010
 - Affordable ubiquitous broadband service
 - Continuously updated communications infrastructure
 - Open access infrastructure that can be shared by multiple service providers
- 2008 Third Vermont broadband coverage map includes remote terminal information not included in earlier efforts and the percent of E911 addresses that are served or unserved
 - 2008 Vermont obtained commitments from providers to offer service to all households and businesses in 51 exchanges that had no or low-grade Internet access in 2008.

Vermont believes that mobile Internet and voice services are essential economic development and safety services that must be available throughout the state by year-end 2010. To that end, Vermont supports broadband mapping efforts that include detailed information of all available mobile services.