

**Before the  
DEPARTMENT OF COMMERCE NATIONAL TELECOMMUNICATIONS AND  
INFORMATION ADMINISTRATION  
and the  
DEPARTMENT OF AGRICULTURE RURAL UTILITY SERVICE  
Washington, D.C. 20230**

In the Matter of	)	
	)	
Implementation of Section 6001 of the American Recovery and Reinvestment Act of 2009	)	
	)	
Implementation of Title I of the American Recovery and Reinvestment Act of 2009	)	Docket No. 090309298-9299-01

**TOP TEN POINTS OF CONSOLIDATED LOCAL COMMUNITY COMMENTS  
OF THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND  
ADVISORS (NATOA), NATIONAL ASSOCIATION OF COUNTIES (NACO),  
NATIONAL LEAGUE OF CITIES (NLC), UNITED STATES CONFERENCE OF  
MAYORS (USCM), CITY OF CHARLOTTE, NC, CITY OF PHILADELPHIA, PA, CITY  
OF PORTLAND, OR, CITY OF EUGENE, OR, CITY OF SEATTLE, WA, CITY OF  
TACOMA, WA, CITY OF WEST ALLIS, WI, CITY OF WILLIAMSTOWN, KY, CITY  
OF ROCKVILLE, MD, CITY OF TAKOMA PARK, MD, MONTGOMERY COUNTY,  
MD, KING COUNTY, WA, GREATER METRO TELECOMMUNICATIONS  
CONSORTIUM, CO, LEAGUE OF OREGON CITIES, METROPOLITAN AREA  
COMMUNICATIONS COMMISSION, OR, NORTH SUBURBAN COMMUNICATIONS  
COMMISSION, MN, FLORIDA CHAPTER OF THE NATIONAL ASSOCIATION OF  
TELECOMMUNICATIONS OFFICERS AND ADVISORS, OHIO CHAPTER OF THE  
NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND  
ADVISORS, SOUTHEAST ASSOCIATION OF TELECOMMUNICATIONS OFFICERS  
AND ADVISORS, AND THE NATIONAL CAPITAL ASSOCIATION OF  
TELECOMMUNICATIONS OFFICERS AND ADVISORS, AND THE WASHINGTON  
ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS**

1. Local governments are explicitly permitted to apply for and receive NTIA broadband grant funding. Grant funding should be made widely available, to all expressly eligible applicants, and coordinated with similar programs across various federal agencies to maximize returns, as well as to enable collaborations of rural, urban, and suburban areas.
2. Grant funding should be awarded to a wide variety of projects serving any of the five stated purposes of Section 6001 of the Act – without prioritizing any one of the purposes over the others – and should fund networks that stand to do the most good for as many Americans as possible.
3. NTIA and RUS, as established by the Act, are the sole agencies charged with determining what projects will be funded using broadband grant funding. NTIA should not surrender its authority to the states to prioritize broadband projects.

4. Broadband mapping grant awards should go to efforts that provide critical consumer information, such as price and speed, and require that data be disclosed in an independently verifiable manner. Any recipient of grant funds to build a network should be required to disclose all broadband mapping information.
5. Funding awards should consider the nature of an applicant, and award amounts based on the actual needs of a proposed project – whether that project requires less than 80% federal funding or seeks a waiver of the 20% matching funds requirement. NTIA must also rigorously define the "public interest" test a private enterprise must pass in order to be eligible for stimulus funds.
6. NTIA and RUS should work to ensure that the explicit intent of the ARRA is not thwarted by anti-competitive barriers to local government participation.
7. Waste, fraudulent spending, and unjust enrichment cannot be tolerated and should be met with swift de-obligation of funds.
8. The definition of “underserved” should reflect the current capabilities of America’s global competitors. Defining “underserved” to include service at low speeds or capacity has significant adverse consequences for the development of advanced communications in the US and for the need to create jobs as soon as possible. The pricing of broadband services must be considered in defining an underserved area. Unaffordable broadband services are unavailable.
9. The definition of “broadband” should be aspirational and should recognize the need for scalability and for Americans to be able to compete globally with competitors who have access to far greater speeds than the long-standing FCC definition of broadband.
10. The FCC’s broadband principles should be a definitional floor for the non-discrimination and network interconnection requirements, and should favor open access.

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**EXECUTIVE SUMMARY OF CONSOLIDATED COMMUNITY COMMENTS OF THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS (NATOA), NATIONAL ASSOCIATION OF COUNTIES (NACO), NATIONAL LEAGUE OF CITIES (NLC), UNITED STATES CONFERENCE OF MAYORS (USCM), CITY OF CHARLOTTE, NC, CITY OF PHILADELPHIA, PA, CITY OF PORTLAND, OR, CITY OF EUGENE, OR, CITY OF SEATTLE, WA, CITY OF TACOMA, WA, CITY OF WEST ALLIS, WI, CITY OF WILLIAMSTOWN, KY, CITY OF ROCKVILLE, MD, CITY OF TAKOMA PARK, MD, MONTGOMERY COUNTY, MD, KING COUNTY, WA, GREATER METRO TELECOMMUNICATIONS CONSORTIUM, CO, LEAGUE OF OREGON CITIES, METROPOLITAN AREA COMMUNICATIONS COMMISSION, OR, NORTH SUBURBAN COMMUNICATIONS COMMISSION, MN, FLORIDA CHAPTER OF THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS, OHIO CHAPTER OF THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS, SOUTHEAST ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS, AND THE NATIONAL CAPITAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS, AND THE WASHINGTON ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS**

Respondents are representatives of the American people in the most fundamental and immediate sense. We are local governments and agencies, all of which work directly with our respective communities to provide services, meet needs, and plan for future success. We are in a unique position to understand what true broadband access might mean for our citizens and our communities, and we urge NTIA and RUS to distribute the ARRA grants in a way that, true to the law’s vision, will bring the most benefit to the most people.

In its RFI, NTIA asks whether “a certain percentage of grant funds [should] be apportioned to each category” of purpose listed in Section 6001 of the Act. Commenters would strongly urge NTIA, however, not to go beyond the intent Congress established and encumber grant funding by specifically apportioning funds to meet each purpose of Section 6001. Doing so could limit the reach and level of innovation that could otherwise be seen through the awarding of NTIA

grant funds, which would be specifically inapposite to the purposes of Section 6001 and the Act as a whole. Commenters instead ask that each grant round make funding widely available subject only to the specific requirements of the Act.

The need for coordination across all levels of government is only increased given the magnitude of task given to NTIA and RUS by Congress. At a minimum, NTIA and RUS need to coordinate their efforts in awarding grants and, in the case of RUS where it elects to, loans and loan guarantees so that the funding allocated by Congress goes as far as is possible. And where NTIA and RUS can identify and fund projects that are well situated to leverage other Recovery Act programs by coordinating with other interested agencies, the application and award process can make the most efficient use of funds possible.

NTIA points to the language of the Act which specifically permits NTIA to consult with states regarding unserved and underserved areas, and the allocation of grant funding within a state. While NTIA is correct to point out this explicit grant of permission to consult with the states, Commenters caution against giving the states too broad a role in determining what projects are ultimately funded.

Section 6001(e) of the Act makes clear that local governments are expressly permitted to apply for and receive NTIA broadband grant funding, something that NTIA acknowledges in the RFI. NTIA should work to ensure that no barriers are laid before local governments as they work to participate in and benefit from this program.

NTIA should scrutinize each private entity application to ensure that public interest concerns are addressed and sufficiently met. Whether this occurs in the manner of institutional networks, discounted or free service to community anchors, the provision of enhanced public computing capacity, or provision of equipment and literacy training in disadvantaged or underserved community segments, NTIA must ensure that where private entities wish to apply that they do so in a manner consistent with the public interest goals of the Act.

In crafting specific selection criteria for the awarding of broadband grants, it seems apparent that Congress wants each grant recipient to bring networks to the community that do the most for the most people. Network speed, reliability, and scalability should be given the greatest weight by NTIA when considering an application. Affordability, broadly defined, and accessibility by consumers should be given consideration comparable to the nature of the network to be deployed. The Act created five coequal purposes that are to receive funding, and did not give preference to any one purpose over the others. Projects that leverage other Recovery Act resources, address multiple purposes of Section 6001 of the Act, or serve multiple identified populations should be given preference.

No one technology should be outcome determinative on its face, and NTIA should make clear that each application will be considered in light of the totality of its proposed offerings and solutions not just related to the proposed network, but in the way the network will help to serve the community. NTIA, where it chooses to consult with individual states, should only slightly give more weight to those projects identified by a state government as priority projects. Where two applicants are otherwise identical, and one has previously failed to meet the obligations

imposed by a federal funding program or otherwise had funds deobligated, NTIA should be wary of awarding funds to the applicant who has shown past difficulty in fulfilling federally imposed obligations.

Where an applicant for RUS funding can demonstrate that it would be able to secure bond financing for deployment of a broadband network but for the availability of a federal loan guarantee, RUS should be willing to consider this application in the same manner that a grant applicant would be given consideration.

NTIA should also be sure to allow as many qualified entities to apply for computing center capacity funds as possible, especially where the proposed site would reach an underserved or vulnerable population.

Many new, innovative programs will take rise from the at least \$250 million in Broadband TOPS funding specifically set aside to develop sustainable broadband adoption programs. While some programs to meet this emerging need exist, many others are just beginning to take shape. It will be important for NTIA to consider as many factors as possible so that otherwise deserving applicants are not precluded from participating in the process.

NTIA should require, as a condition of receipt of Broadband TOPS grant funding, that information sought pursuant to Section 6001(l) of the Act be disclosed as it applies to networks built using federal grant funding. Broadband mapping should allow consumers to discover what connectivity options are available, and provide pricing and speed information that reflects actual conditions, not just advertised offerings. Local governments should have access to broadband deployment and mapping data equal to that afforded to consumers.

NTIA should require providers to disclose its broadband data on the census tract level consistent with the current requirements of FCC Form 477. Broadband mapping grant funding should therefore only be awarded and disbursed to those applications which include the participation of non-industry board members and are focused mainly on the public interest, and not funded in part or whole by private telecommunications concerns. NTIA should also require broadband mapping grant recipients to collect data on adoption rates, and periodically update their information so that areas with slower adoption rates can be identified and receive more targeted efforts to drive up adoption.

NTIA should make clear that applicants can meet their required 20% match through the use of in-kind contributions as spelled out at 15 CFR § 24.24. Where an applicant is primarily or entirely a private for-profit entity, NTIA should fund these projects only to the level necessary to meet the public interest goals of the Act. While key to meeting a purpose of the Act, NTIA should make sure that the required showing of need for federal funding to complete a project is not prohibitively onerous or requires evidence that could preclude applicants from participating in the grant program. Where an applicant requests a waiver of the 20% matching requirement, however, a more substantial showing of need should be required.

At the first public meeting held to start the implementation comment process, Mark Seifert of NTIA announced that NTIA was considering the creation of three grant application and award

rounds, to be completed no later than June of 2010. Given that the Act requires NTIA to obligate all of its available funds no later than the end of the 2010 fiscal year, this proposed timetable for obligating funds seems more than capable of meeting the statutory deadline.

Applicants should be required to demonstrate that a proposed project can be completed on a reasonable timeline within two years of the award of grant funding in an effort to avoid waste or fraudulent spending. NTIA should require any project that falls two months or more behind to provide a revised project timetable that demonstrates a genuine effort to catch up to the originally proposed schedule. Where, at the next reporting interval, a project has failed to meet these new deadlines, NTIA should de-obligate funds and re-award the remaining funds to a previously unsuccessful applicant or new applicant, depending on where NTIA is in the awards process. Any evidence of fraudulent spending of grant funding should be met with immediate deobligation of funds and, where possible, restitution of those funds spent fraudulently.

For the purposes of NTIA's Broadband TOPS grant program, an area should be considered "unserved" by broadband where no wireline or wireless broadband connectivity is reasonably commercially available. This means consumers cannot purchase broadband service at rates comparable to those customers that are served or underserved. We propose that "underserved" is a function of five key considerations: Speed and capacity, affordability, accessibility, operator networks limitations, and last mile service over copper infrastructure.

We suggest it is more appropriate to define broadband in the context of supported applications. Within that framework, broadband is a connection that is sufficient in speed and capacity such that it does not limit a user's desired application. Thus, as users become more and more sophisticated, and applications become more and more bandwidth-intensive, the required speed and capacity of a given connection will need to continually increase to be considered broadband. This should also be framed aspirationally, in order to consistently provide for emerging uses and applications of broadband networks. The FCC broadband principles should serve as the absolute floor for non-discrimination and network interconnection obligations imposed on grant recipients, and should favor the deployment of open networks.

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**I. INTRODUCTION**

The National Association of Telecommunications Officers and Advisors, (“NATOA”), submits these comments in response to the Request for Information (RFI) in the above referenced Matter. The entities filing in response to the RFI are comprised of local governments, consortia of local governments, and national, regional and state level associations representing local governments, all of whom have a vested and long-standing interest in the deployment and

availability of broadband services throughout their communities. Joining in these comments are the National Association of Counties (NACo), the National League of Cities (NLC), the United States Conference of Mayors (USCM), the cities of Charlotte, NC, Philadelphia, PA, Portland, OR, Eugene, OR, Seattle, WA, Tacoma, WA, West Allis, WI, Williamstown, KY, Rockville, MD, Takoma Park, MD, Montgomery County, MD, King County, WA, the Greater Metro Telecommunications Consortium, CO,<sup>1</sup> the League of Oregon Cities, the Metropolitan Area Communications Commission, OR,<sup>2</sup> the North Suburban Communications Commission, MN,<sup>3</sup> the Florida Chapter of the National Association of Telecommunications Officers and Advisors, the Ohio Chapter of the National Association of Telecommunications Officers and Advisors, the Southeast Association of Telecommunications Officers and Advisors, the National Capital Association of Telecommunications Officers and Advisors, and the Washington Association of Telecommunications Officers and Advisors. Others, while lacking resources to join in these comments, have expressed their desire to be listed as filing in support. Those entities are listed in the Appendix affixed hereto.

## **II. INTERESTED PARTICIPANTS**

Respondents are representatives of the American people in the most fundamental and immediate sense. We are local governments and agencies, all of which work directly with our

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<sup>1</sup> The Greater Metro Telecommunications Consortium includes the 34 following communities: Adams County, Arapahoe County, City & County of Denver, City of Arvada, City of Aurora, City of Brighton, City of Broomfield, City of Centennial, City of Cherry Hills Village, City of Commerce City, City of Dacono, City of Durango, City of Edgewater, City of Englewood, City of Federal Heights, City of Glendale, City of Golden, City of Greenwood Village, City of Lakewood, City of Littleton, City of Lone Tree, City of Louisville, City of Northglenn, City of Sheridan, City of Thornton, City of Westminster, City of Wheatridge, Douglas County, Jefferson County, Town of Castle Rock, Town of Columbine Valley, Town of Erie, Town of Frederick, and the Town of Parker.

<sup>2</sup> The Metropolitan Area Communications Commission is comprised of the 15 following communities: Banks, Beaverton, Cornelius, Durham, Forest Grove, Gaston, Hillsboro, King City, Lake Oswego, Milwaukie, North Plains, Rivergrove, Tigard, Tualatin, and Washington County.

<sup>3</sup> The North Suburban Communications Commission includes the following 10 communities: Arden Hills, Falcon Heights, Lauderdale, Little Canada, Mounds View, New Brighton, North Oaks, Roseville, St. Anthony, and Shoreview.

respective communities to provide services, meet needs, build livable communities and improve citizens' quality of life. We are in a unique position to understand what true broadband access might mean for our citizens and our communities, and we urge the National Telecommunications and Information Administration ("NTIA") and the Rural Utilities Service ("RUS") to distribute the American Recovery and Reinvestment Act of 2009 ("ARRA") grants in a way that, true to the law's vision, will bring the most benefit to the most people.

NATOA's membership includes local government officials and staff members from across the nation whose responsibility is to develop and administer communications policy and the provision of communications services for their respective communities. NATOA's membership includes communities that have constructed, or are in the course of constructing broadband infrastructure, or are offering broadband services within their jurisdictions. These members manage networks in urban, suburban and rural areas across America.

Local governments stand ready to participate in the provision of broadband infrastructure or services, but are in need of financing to see their communities' aspirations come to fruition. In the course of supporting the passage of ARRA, NATOA collected information on many of these communities with "shovel ready" projects. These are areas that are ready to break ground within the limited time frames proposed, and whose projects will have immediate and beneficial effects to spur the economy through immediate and long-term employment opportunities, as well as improving the long-term success of their citizens through uptake and use of broadband. A listing of these projects is provided as an Appendix to these Comments.

### **III. GRANT ROUNDS SHOULD MAKE FUNDING WIDELY AVAILABLE**

In its RFI, NTIA asks whether “a certain percentage of grant funds [should] be apportioned to each category” of purpose listed in Section 6001 of the Act.<sup>4</sup> Commenters believe that, subject only to the “not less than” provisions of the Act, NTIA should not apportion any specific amount of funding to any one purpose of Section 6001 of the Act. Doing so could limit the reach and level of innovation that could otherwise be seen through the awarding of NTIA grant funds, which would be specifically inapposite to the purposes of Section 6001 and the Act as a whole. By keeping funds unencumbered to the extent allowed by the Act, NTIA will encourage the widest spectrum of applicants to participate in each grant round. Further, any encumbrance could effectively preclude NTIA from funding the types of innovative approaches and programs that are specifically sought by Congress through the Act.

Commenters acknowledge that Title II of the Act requires NTIA to award not less than \$200 million in grants to support expansion of computer center capacity, and not less than \$250 million in grants for innovative programs to encourage sustainable adoption of broadband service.<sup>5</sup> To the extent that NTIA deems it necessary to specifically set aside these funds to meet the requirements set by Congress, Commenters support such an approach. This manner of set aside was specifically contemplated in the Act, and to the extent necessary requires separate treatment.

That is not to say, however, that applicants should craft their applications to fit within one of the five silos listed under the purposes of Section 6001. To the contrary, applicants should be encouraged and rewarded for encompassing as many of the goals of the Act as possible so that areas that stand to benefit from a grant award will not only see an increase in network availability, but also see an increase in available resources for making use of the network,

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<sup>4</sup> 74 Fed. Reg. 10717 (March 12, 2009) *citing* Pub. L. 111-5 § 6001(b) (Feb. 17, 2009).

<sup>5</sup> Pub. L. 111-5, Title II (Feb. 17, 2009).

improved public safety communications, and an overall uptick in economic growth and job creation. Where applicants encompass several of the purposes of the Act in their application, they should be rewarded for taking such a comprehensive view.

#### **IV. INTERAGENCY COORDINATION IS ESSENTIAL TO LEVERAGING FUNDS EFFECTIVELY**

In comments to the Federal Communications Commission relating to the implementation of a rural broadband strategy, several Commenters here stressed the need for widespread coordination of broadband deployment efforts to meet the needs of rural Americans in a timely and efficient manner.<sup>6</sup> This need for coordination across all levels of government is only increased given the magnitude of task given to NTIA and RUS by Congress.

NTIA rightly identifies a number of additional funding programs that can augment the effectiveness of NTIA and RUS funding, involving health IT, smart grid technology, education, and transportation infrastructure before asking how best to leverage these additional programs.<sup>7</sup> In order to leverage these assets, however, a level of interagency coordination beyond just NTIA and RUS will be necessary. A number of possible approaches exist for creating the requisite level of coordination:

- Designation of interagency liaisons to conduct outreach and program monitoring with sister agencies
- Creation of centralized data collection mechanisms, to the extent possible, to track what areas are receiving funding under complementary programs
- Implementation of streamlined application processes that allow applicants to “check the box” and indicate, at a minimum, complementary programs under which an applicant has also sought federal funds

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<sup>6</sup> See Comments of the National Association of Telecommunications Officers and Advisors, the National Association of Counties, the National League of Cities, and the United States Conference of Mayors, *In the Matter of Implementation of Section 6112 of the Food, Conservation, and Energy Act of 2008*, p. 4-6, Docket No. GN 09-29, filed March 25, 2009.

<sup>7</sup> 74 Fed. Reg. 10717 (March 12, 2009).

In any event, leveraging complementary programs will require awareness on the part of NTIA and RUS regarding the reach of these other programs. By working now to create a level of cooperation and coordination with sister agencies, NTIA and RUS can work to ensure that, to the best of their abilities, funding is not awarded in an area or manner that would be duplicative of other federal programs, but would instead work in concert to increase the level of benefits realized with an award of NTIA or RUS funding.

As expressed by Jeff Arnold of NACo on the second day of NTIA's public meetings, coordination may very well require a level of standardization of application procedures and databases to ensure the purposes of the Act are met. At a minimum, NTIA and RUS need to coordinate their efforts in awarding grants and, in the case of RUS where it elects to, loans and loan guarantees so that the funding allocated by Congress goes as far as is possible. And where NTIA and RUS can identify and fund projects that are well situated to leverage other Recovery Act programs by coordinating with other interested agencies, the application and award process can make the most efficient use of funds possible.

## **V. STATES SHOULD NOT BE TASKED WITH PRIORITIZING PROJECTS**

NTIA asks what the "appropriate role for States in selecting projects for funding" should be in awarding grants.<sup>8</sup> In asking this question, NTIA points to the language of the Act which specifically permits NTIA to consult with states regarding unserved and underserved areas, and the allocation of grant funding within a state.<sup>9</sup> While NTIA is correct to point out this explicit grant of permission to consult with the states, Commenters caution against giving the states too broad a role in determining what projects are ultimately funded.

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<sup>8</sup> *Id.*

<sup>9</sup> 74 Fed. Reg. 10717 (March 12, 2009) *citing* Pub. L. 111-5, § 6001(c) (Feb. 17, 2009).

It is critical to first point out the inherent conflict that exists when a state is asked to prioritize applications received from that state by NTIA. States themselves may apply for funding in the same manner as local governments within that state, thus competing for the same exact funds. This arrangement would place states in the enviable position of being able to “prioritize” projects it deems less likely to receive funding, making the state’s chances for receiving funds better. States may also have a preexisting broadband connectivity plan that overlooks the needs that individual communities have identified where improved connectivity is required, and give preference to state priorities over local communities that have bona fide needs.

By delegating to the states the task of project prioritization, NTIA also runs the risk of projects from different states not being considered on a level playing field. Different states may treat selection criteria in a different manner, an outcome Congress specifically chose to avoid when it tasked NTIA with administering this grant program. Every application, regardless of applicant, deserves equal treatment and consideration for funding – whether that application comes from a state, local, or tribal government.

Where NTIA asks states to provide some input into what projects within a state are of highest priority, these designations should not be given so much weight as to be outcome determinative. At most, these priority determinations should add only a few points to an applicant’s total score and leave the greatest weight to those elements most vital to the success of a proposed project. Affording state determinations too much weight could give states an unintended “veto power” over the process, and deny otherwise deserving applicants a chance to receive NTIA funds.

Where discrepancies arise between a local applicant and a state regarding the level of priority or preference a project should receive, that project should be scored independently by

NTIA. Only where the absence or presence of state preference or priority designation would be outcome determinative should NTIA step in and act to moderate between the parties. The level of formality and process utilized to bear out these disagreements is something that NTIA can and should address in relation to existing resources, balancing the interests of the affected parties with the interests of administering the program as a whole.

Commenters would lastly point out that a number of states have acted to bar or effectively bar the participation of local governments in the NTIA broadband grant program. In fifteen different states, local governments are prohibited from owning network infrastructure, offering broadband service, or face significant financing barriers that make applying for and receiving NTIA funds for residential and business infrastructure provision a fruitless endeavor. Commenters urge NTIA to be aware these state prohibitions and barriers should not disqualify local government projects that conform to the state laws and still achieve the goals of the NTIA and RUS programs. Commenters would urge NTIA to take these prohibitions and barriers into consideration when weighing an application received from a state that prohibits local government participation. Ultimately, NTIA should make clear that they alone will make the final determination as to what applicants will receive grant funding.

## **VI. LOCAL GOVERNMENTS ARE EXPLICITLY PERMITTED TO APPLY FOR AND RECEIVE GRANT FUNDING**

Section 6001(e) of the Act makes clear that local governments are expressly permitted to apply for and receive NTIA broadband grant funding, something that NTIA acknowledges in the RFI.<sup>10</sup> NTIA should work to ensure that no barriers are laid before local governments as they work to participate in and benefit from this program. As noted above, several states have already acted in a manner that prevents local governments within these states from participating, and

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<sup>10</sup> 74 Fed. Reg. 10717 (March 12, 2009) *citing* Pub. L. 111-5, § 6001(e) (Feb. 17, 2009).

Congress' intent in having as wide a participant base as possible among governments and non-profit entities evinces a desire to not see any additional barriers erected.

Not only should this apply to local government applicants generally, but NTIA should avoid limiting any one round of grant applications to a narrow category of applicants who may participate. Much as Commenters stated in relation to appropriating a certain level of funding to meet each of the five purposes of Section 6001, placing limitations on the kinds of applicants who can apply for grant funds in any round would limit the reach and innovative nature of the broadband grant program. The grant application and award process should be as inclusive as possible to the extent allowed under the Act, and must ensure that local governments can participate in every round as a step in that direction.

**VII. ANY PUBLIC INTEREST TEST USED TO DETERMINE PRIVATE ENTITY ELIGIBILITY MUST KEEP THE PUBLIC ASPECTS OF THE ACT PARAMOUNT**

While the Act is clear in its goal of serving the public interest by specifically allowing government and non-profit entities to participate in the broadband grant program, the Act gives NTIA discretion to allow a private entity to participate where it can demonstrate that such participation would be in the public interest.<sup>11</sup> To this end, NTIA has asked what standard should be applied in a public interest test.<sup>12</sup> As an initial matter, Commenters would ask NTIA that no matter what standard is adopted, where a government or non-profit organization and a private enterprise apply for grant funding to serve a similar area, that the private enterprise application be deemed insufficient under the public interest test. No matter how well intentioned, no private entity has the capacity to act in the public interest to the extent that governments and non-profit organizations can and do on a daily basis.

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<sup>11</sup> Pub. L. 111-5, § 6001(e)(1)(C) (Feb. 17, 2009).

<sup>12</sup> 74 Fed. Reg. 10718 (March 12, 2009).

The public interest test for private participation in BTOP grants should be rigorous and meaningful. Commenters disagree with industry's claims that a certificate of public convenience or cable franchise is a sufficient showing of "public interest" thereby bypassing any need to partner with a state/local government or a not-for-profit. In the case of a cable franchise or certificate of public convenience, these are limited-term licenses that are regularly reviewed and revised to ensure an ongoing commitment to the public interest on the part of the private entity. These are also instruments that result in most instances from long-term negotiations with local governments, so that while the private entity is allowed to enter and provide services the community as a whole is protected by a thorough process and benefits in numerous ways, such as institutional networks, the provision of free or discounted service to government and educational buildings and libraries, or community outlets such as public access television channels.

We strongly urge NTIA to keep “the public” in public-private partnerships. While other industrialized nations have developed strategies for next-generation broadband infrastructure, the United States’ lack of a national broadband strategy to-date has effectively ceded control of our broadband destiny solely to the private market—without sufficient regard for the public interest or the unique needs of local communities. And the private market has failed to operate either efficiently or dynamically, leaving the nation without adequate broadband and with the need for programs such as this.

It would be a mistake to consider all public-private partnerships equal. In the simplest terms, public-private partnerships must always benefit the public. NTIA and RUS should beware of public-private partnerships that just benefit private companies—where public funds serve to build a network to be owned by the private entity, which then requires government and non-

profit entities to purchase services at retail prices. Public-private partnerships should be evaluated, in part, on the direct benefits that accrue to the government or non-profit entities (and the citizens they represent) that partnered with the private company.

Institutional networks are a perfect illustration of this type of public-private partnership. One of the most successful business models in the history of communications in the U.S., these cable-based “I-Nets” are partnerships between local governments and cable companies. They represent a payment—in the form of fiber optic capacity—by the cable companies for their local franchise agreements and for the use of the public rights-of-way. I-Nets make great financial sense for local governments; they facilitate crucial educational, public safety, and other essential public services; and they foster strong relationships between municipalities and cable operators. The cable operator gains access to the rights-of-way and a cost-effective way to pay for that access, while the local community gains dedicated fiber optics on which to operate a network for its schools, libraries, first responders, and utilities.

NTIA should scrutinize each private entity application to ensure that public interest concerns are addressed and sufficiently met. Whether this occurs in the manner of institutional networks, discounted or free service to community anchors, the provision of enhanced public computing capacity, or provision of equipment and literacy training in disadvantaged or underserved community segments, NTIA must ensure that where private entities wish to apply that they do so in a manner consistent with the public interest goals of the Act.

## **VIII. SELECTION CRITERIA SHOULD FAVOR PROJECTS THAT DO THE MOST FOR THE MOST PEOPLE**

The Act specifically identifies five considerations that NTIA must address with every application to deploy infrastructure in an area.<sup>13</sup> Three of these considerations deal directly with

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<sup>13</sup> Pub. L. 111-5, § 6001(h) (Feb. 17, 2009).

the very nature of the network infrastructure deployment: Affordability and subscribership to the greatest population, greatest speed possible to the greatest population, and enhanced service to health care, education, or children to the greatest population.<sup>14</sup> Thus, in crafting specific selection criteria for the awarding of broadband grants, it seems apparent that Congress wants each grant recipient to bring networks to the community that do the most good for the most people.

While five factors toward creating selection criteria are specifically laid out in the Act (the other two regarding unjust enrichment and whether an applicant is a socially or economically disadvantaged small business concern), NTIA asks what other factors should be considered among the selection criteria.<sup>15</sup> Up front, NTIA should make it clear that any application it receives must offer universal service to even qualify for consideration. This prerequisite would prevent projects from imposing economic, social, or political considerations on the areas that are served, and further the goal of serving the greatest population of users. As Rep. Rick Boucher, Chairman of the Subcommittee on Communications, Technology, and the Internet stated in his statement before the first broadband grant program oversight hearing: “We want to ensure that everyone has access to broadband, and we also want to ensure that everyone has access to broadband at meaningful speeds and affordable prices and can benefit from competition among service providers.”<sup>16</sup>

*A. Network Capabilities and Characteristics Should Carry the Greatest Weight*

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<sup>14</sup> *Id.* at §§ (2)(a-c).

<sup>15</sup> 74 Fed. Reg. 10718 (March 12, 2009).

<sup>16</sup> See Statement of Congressman Rick Boucher, Subcommittee on Communications, Technology, and the Internet, Oversight of the American Recovery and Reinvestment Act: Broadband, April 2, 2009, [http://energycommerce.house.gov/Press\\_111/20090402/boucher\\_open.pdf](http://energycommerce.house.gov/Press_111/20090402/boucher_open.pdf), p. 1-2.

Of the five explicit considerations spelled out in the Act, Congress included two that speak directly to the ability of a network to provide truly high speed, high capacity service. Both the consideration of speed explicitly, and the consideration of service for health care, education, and children require that the networks built using NTIA grant funding provide, to the extent possible, the fastest, highest capacity, most reliable network. To that end, several factors should be considered and scored as part of the grant process:

1. **Speed:** The actual speed of a proposed network at peak usage times should be given the greatest weight in the application process. This includes both download and upload speeds, since many of the applications involved in telemedicine, telework and distance learning require high symmetrical speeds.
2. **Reliability:** To achieve the purpose of increasing public safety use of networks built using NTIA grant funding, proposed networks will require a level of redundancy and consistency that public safety users can rely upon. Reliability also has a positive impact on the end user experience for regular consumers as well, and can improve both adoption and usage levels.
3. **Scalability:** Networks built using NTIA grant funding should be as future-proof as possible. If this program is truly a down payment on our broadband future, the networks built today should not become outdated in only a couple of years. Scalability can be achieved through a variety of means, and is achievable for a number of service platforms.

*B. Affordability and Accessibility of the Network Should be Given Consideration Comparable to The Nature of the Network to be Deployed*

The impact of available broadband services on the economic life of a community is determined as much by price, affordability to the average resident, and the related rate of penetration, as by the speed and capacity subscribers may be offered. Price and penetration rates of existing services are therefore key factors to be assessed in evaluating the need for additional infrastructure. Building a far-reaching, high speed, high capacity network with outstanding reliability and scalability is a necessary first step, but if the users within reach of the network cannot afford or access the services offered then the only accomplishment will have been the construction of a digital “bridge to nowhere.” Similarly, projects that promise to bring

broadband service to consumers and local businesses at lower costs than available from incumbent suppliers should receive priority. Keeping price points within a range that is affordable to consumers and small businesses is vitally important, as is offering resources to ensure that consumers can fully leverage the network that is built.

Equally important is the availability of high speed internet access to low income consumers, who increasingly are shut out of job opportunities, healthcare information, and education by lack of affordable broadband service. Too often, incumbent providers have left small business, isolated pockets of economic activity, and consumers with no alternative except high priced, traditional copper based services. If a proposal offers better, cheaper broadband service that will stimulate economic activity, create information sector jobs, and allow consumers and small businesses to escape being unwilling captives to incumbent providers who won't provide state of the art broadband, the project request should receive priority. Two factors NTIA should keep in mind include:

1. **Affordability:** Prices should strike a balance between making a deployed network economically tenable and keeping a service affordable for the consumers who are reached by the network, including low income consumers who do not have broadband internet access because they can't afford it. Projects that are most likely to succeed will require affordability to be a key focus. Affordability should be considered both from the perspective of the total cost to deploy the proposed network, as well as the proposed retail cost of service that will be passed on to consumers and whether that cost of service will bring meaningful broadband within reach of more consumers. Where a project achieves parity between these two costs, that project should receive additional weight. Where a project both achieves this parity and supports broadband service to low income consumers, it should receive even more weight.
2. **Accessibility:** This factor covers a range of issues. Do community members have the necessary skills to make effective use of the network? Is hardware readily available and affordable? Is enough public computing capacity offered so that those who may not initially bring service into their homes can experience the value of the network first hand? While these and other considerations will have significant overlap with specifically targeted funding priorities within the Act, it is important to realize that network deployment absent efforts to drive consumer

demand will result in low adoption rates and a higher possibility that a project might not be financially feasible.

*C. Unserved Areas Should be Afforded No Preference over Underserved Areas*

During the NTIA's public meetings, Daniel Mitchell of the National Telecommunications Cooperative Association suggested that as much funding as possible should be directed at bringing broadband connectivity to as yet unserved rural areas. While Commenters agree that parts of our nation remain in the digital dark and desperately need broadband connectivity, the funds made available through NTIA and RUS simply are not enough to bring broadband to every unserved American. Instead of spending solely in unserved areas, NTIA should award funding to projects in underserved areas of our country where innovative programs can be tried and tested, so that going forward there is a better understanding of what approaches are most likely to succeed. Congress also made clear through its construction of Section 6001's purposes section that each of the five listed goals of this portion of the Act are intended to be coequal in importance, with no one cause warranting special attention.<sup>17</sup>

NTIA needs to be aware that we "are all Americans," a point that was poignantly driven home by Allen Hammond of Santa Clara University School of Law. Our competitor nations have deployed networks tens to hundreds of times faster than those currently available in America, including into rural areas, at prices that are lower than American consumers pay for inferior connectivity. By spreading funds to both unserved and underserved areas on the merits of each project's capabilities, a baseline of information will be cultivated about what kinds of deployments, applications and consumer uptake efforts are most successful. Coupled with the FCC's national broadband strategy, this information will help communities plan, deploy, and

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<sup>17</sup> Pub. L. 111-5, § 6001(b) (Feb. 17, 2009).

manage networks and consumer needs more effectively, and help America catch up to its competitor nations more readily.

This point was emphasized most recently by Rep. Henry Waxman, Chairman of the House Energy and Commerce Committee: “There are some who may hope to re-characterize the statute to mandate that ‘unserved’ areas be given prioritization over ‘underserved’ areas. In fact, this Committee rejected an amendment at mark-up that would have done exactly that, so I expect that NTIA will not be distracted by these efforts.”<sup>18</sup> In short, no preference should be given to a project based on whether its service would be provided to unserved areas or to underserved areas, given the clear language of the Act and the need to spread funding across a wide array of projects and programs.

*D. Projects that Leverage other Recovery Act Resources, Address Multiple Purposes, or Serve Multiple Identified Populations, or Demonstrate Collaborative Linkages Between Local Agencies, Schools, and Community Organizations Should be Given Preference*

A recurring theme before several public meeting sessions was Bob Atkinson’s reminder that grant funds should achieve the “biggest bang for the taxpayer buck.” This mantra is especially true given the numerous complementary programs that came out of the Recovery Act, incorporating broadband elements into the areas of healthcare, energy, and infrastructure. Even Section 6001 itself addresses multiple aims, covering a diverse section of the population and multiple areas of public interest need.

Project coordination and comprehensiveness should be encouraged and rewarded as part of the NTIA grant program. Where an applicant demonstrates that their project would make complementary use of other Recovery Act programs in a way that is consistent with the

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<sup>18</sup> See Opening Statement of Rep. Henry A. Waxman, Chairman, Committee on Energy and Commerce Oversight of the American Recovery and Reinvestment Act: Broadband, Subcommittee on Communications, Technology, and the Internet, April 2, 2009, [http://energycommerce.house.gov/Press\\_111/20090402/haw\\_open\\_ti.pdf](http://energycommerce.house.gov/Press_111/20090402/haw_open_ti.pdf), p. 1.

prohibition on unjust enrichment found in Section 6001(h)(2)(d), that application should be given additional weight. Additionally, where an application addresses more than one of the five purposes listed in Section 6001(b) of the Act, or addresses the economic development, job creation, public safety, or sustainability goals of the Act, that application should be given greater weight. To the extent a proposed project leverages existing assets, such as utilizing resources of educational institutions, libraries, or recreation centers to provide services, or develops collaborative linkages between local government, schools and community organizations, that application should be given greater weight. Finally, where an application would serve a cross section of unserved, underserved, and/or vulnerable populations with one network, that project should be given greater weight. With only so much funding to go around, projects that accomplish as many of the goals of the Act and make efficient complimentary use of other Recovery Act programs should be given an added level of priority.

*E. Technological Neutrality Should be Maintained to the Extent Practicable*

Another major concern that has been voiced throughout the public meeting process is how different technologies will be compared against one another during the grant application process, especially where technological limits place ceilings on how fast a network may operate. While Commenters here place an emphasis on the speed and capacity of a network, it remains clear that different platforms may be better suited to meet the purposes of the Act in different areas of the country. As such, to the extent practicable, NTIA should remain technologically neutral in its evaluation of grant applications.

Where certain technologies have advantages regarding speed, capacity, and scalability, other technologies will be inherently less expensive to install and have the potential to provide accessibility beyond the scope of a different solution. It is through making these advantages

clear that potential applicants can ensure their project is given as good a chance to prevail in the application process as someone who might opt for a more robust option. By clearly identifying the needs of the area to be served, tailoring the technological solution to meet those needs, and ensuring that the project covers a wide range of purposes and populations, these applicants have as good a chance of success as any other.

No one technology should be outcome determinative on its face, and NTIA should make clear that each application will be considered in light of the totality of its proposed offerings and solutions not just related to the proposed network, but in the way the network will help to serve the community.

*F. Projects that Receive State Endorsement Should Receive Only Slight Additional Weight*

As discussed supra in section IV, state priority determinations should not be outcome determinative, nor give states the ability to favor projects that more neatly fit within a state's own broadband scheme. However, where a state has been asked by NTIA to provide a list of preferred projects based on its understanding of actual needs and current local realities, those determinations of preference should entitle an application to receive some slight additional weight. It follows that where both a local government and state government identify the immediate need for deployment that level of concern should be taken into consideration.

NTIA, where it chooses to consult with individual states, should give only slightly more weight to those projects identified by a state government as priority projects – striking a balance between acknowledging the real needs of a community and maintaining a wide open application process that allows every applicant to participate on a level playing field.

*G. NTIA Should Consider an Applicant's Track Record when Receiving Federal Funds*

For some communities, this application process will mark the first time they have had an opportunity to apply for and receive federal grant funding. As such, these communities and their proposed projects should be considered on their merits. Where an applicant has previously been a federal funding recipient, and has met the obligations imposed upon receipt of those funds, NTIA should take such outcomes into consideration but not to the detriment of first-time federal funding applicants. Instead, where two applicants are otherwise identical, and one has previously failed to meet the obligations imposed by a federal funding program or otherwise had funds deobligated, NTIA should be wary of awarding funds to the applicant who has shown past difficulty in fulfilling federally imposed obligations. Where the choice is between a new applicant and one with previous negative history, NTIA should give preference to new applicants whose inexperience is preferable to an applicant who has failed to meet requirements in the past.

#### **IX. USDA/RUS SHOULD NOT RULE OUT MAKING USE OF LOAN GUARANTEES WITH RECOVERY ACT FUNDING**

In an effort to streamline and centralize the application process between NTIA and RUS as much as possible, there has been a suggestion that RUS should rely exclusively on grant funding and not offer loans or loan guarantees, financing options that have traditionally been offered through the RUS program. While this approach might make the most sense from a streamlined application perspective, it bears noting that some communities that will be eligible for RUS funds might be better positioned to use loan guarantees. Further still, loan guarantees allow federal funding to go further, since no outlay of funds occurs unless a guaranteed loan enters default.

Where an applicant for RUS funding can demonstrate that it would be able to secure bond financing for deployment of a broadband network but for the availability of a federal loan guarantee, RUS should be willing to consider this application in the same manner that a grant

applicant would be given consideration. This may hold especially true for applicants who plan to seek financing from smaller local financial institutions, where the current state of credit markets may not have as dampening an effect on the availability of bond financing. If nothing else, RUS should not outright abandon the loan guarantee funding mechanism given its established track record as part of the RUS program.

**X. SELECTION CRITERIA FOR PUBLIC COMPUTING SITES SHOULD BE INCLUSIVE OF EXISTING AND NEWLY PROPOSED SITES**

NTIA has been tasked by Congress with seeing that at least \$200 million of the broadband grant program funding goes to expanding public computing center capacity.<sup>19</sup> To help expand existing centers and to drive the creation of new public computing facilities, NTIA should ensure that selection criteria for these kinds of projects are treated as equally as possible.

Existing public computing sites should be able to provide documentation of existing programs and a plan for programs to be provided, including training and time available for general public access to essential services (open lab time for employment searches, resume writing, research on health, etc). Criteria should also include a staffing plan (which could include volunteers), a demonstrated capacity for financial management and technology support, capacity for marketing services, a plan for impact evaluation, appropriate facilities, and community participation in program design. As stated earlier in Section VIII.D, where an application leverages other Recovery Act resources, addresses multiple purposes of the Recovery Act, serves multiple identified populations, or demonstrates collaborative linkages between local agencies, schools, or community organizations, it should be given an added level of priority.

Newly established public computing sites should be able to provide a plan for programs to be provided, including training and time available for general public access to essential

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<sup>19</sup> Pub. L. 111-5, Title II (Feb. 17, 2009).

services (open lab time for employment searches, resume writing, research on health, etc). Criteria should also include a technical plan, staffing plan (which could include volunteers), demonstrated capacity for financial management and technology support, capacity for marketing services, and a plan for impact evaluation, appropriate facilities, and community participation in program design. To help reduce the likelihood of redundant services, new public computing sites should be given points for or required to provide letters of support from a government entity, United Way, or other recognized regional services oversight body.

All of these programs should provide documentation of community need and plans to address documented technology underserved residents, as defined by research on adoption of technology and broadband. Services should be provided on a non-discriminatory basis.

Additional points should be awarded for programs which actively enable access for people with disabilities.

NTIA should also be sure to allow as many qualified entities to apply for computing center capacity funds as possible, especially where the proposed site would reach an underserved or vulnerable population. Community technology centers in non-profit service organizations, immigrant/refugee organizations, affordable housing complexes, and municipal community centers offering public computing and training should also be eligible. In addition, where community technology centers do not exist in close proximity, schools providing public computing after school hours should also be eligible. Mobile public computing programs provided by recognized institutions and non-profits should also be eligible in locations where a need can be justified or other facilities do not exist.

**XI. A NUMBER OF FACTORS SHOULD BE CONSIDERED WHEN AWARDING GRANT FUNDING FOR PROGRAMS THAT ENCOURAGE SUSTAINABLE BROADBAND ADOPTION**

Many new, innovative programs will take rise from the at least \$250 million in Broadband TOPS funding specifically set aside to develop sustainable broadband adoption programs.<sup>20</sup> While some programs to meet this emerging need exist, many others are just beginning to take shape. It will be important for NTIA to consider as many factors as possible so that otherwise deserving applicants are not precluded from participating in the process.

Factors could include:

- Increased rate of adoption in population served, with distinct tracking for connections for low-income and other historically low-technology adopting residents and businesses, non-profits and disadvantaged businesses.
- Sustainable end user costs for connectivity, hardware, training and technical support.
- Increased technology literacy, increased awareness of and use of broadband services by program participants. This would include the number served as a measure, though there needs to be some allowance for challenging populations, such as those with disabilities or limited English speakers, who require additional equipment or training time in order to use broadband services.
- Increased community capacity to provide broadband adoption and technology literacy programs.
- Increased sustainability of local community technology centers.
- Additional project specific measures may include number of refurbished computers provided to families, sustainable technical support capacity
- Ongoing commitment from providers or other partners of a method to make Internet connections affordable to low income residents, community technology learning centers and non-profit organizations.

## **XII. BROADBAND DATA COLLECTION AND MAPPING IS ESSENTIAL TO CRAFTING AND IMPLEMENTING A NATIONAL BROADBAND STRATEGY**

Congress acknowledged the pressing need for detailed, current broadband deployment data in the 110<sup>th</sup> Congress when Senator Inouye's Broadband Data Improvement Act was passed and signed into law.<sup>21</sup> Now, as part of the Recovery Act, Congress has provided the Commerce Department with the necessary funding to issue State Broadband Data and Development grants to the tune of \$350 million dollars.<sup>22</sup> In its RFI, NTIA has asked a number of questions relating

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<sup>20</sup> Pub. L. 111-5, Title II (Feb. 17, 2009).

<sup>21</sup> Pub. L. 110-385 (Oct. 10, 2008).

<sup>22</sup> Pub. L. 111-5, Title II (Feb. 17, 2009).

to the type of information that should be collected and incorporated into a publicly accessible broadband inventory map.<sup>23</sup>

The need to improve our nation's understanding of current broadband deployments has been acknowledged and discussed previously, starting with the FCC's efforts to improve carrier data submitted using Commission form 477.<sup>24</sup> Since the Commission's NPRM on broadband data collection, a host of activity has taken place, culminating with Senator Inouye's bill that spells out several new requirements that the FCC must comply with under Section 706 of the Telecommunications Act of 1996. This bill also created the State Broadband Data and Development Grant program, which is to be administered by the Commerce Department.<sup>25</sup> With the necessary funding now in place, NTIA must now implement this additional grant program while working simultaneously to implement the Broadband TOPS grants while the FCC works to implement a national broadband strategy. All three of these programs are interrelated and require the same level of coordination that is needed between agencies that have a broadband element stemming from the Recovery Act.

*A. Any Recipient of Broadband TOPS or RUS Recovery Act Funding Should, as a Condition of Receipt, be Required to Disclose All Necessary Data for Broadband Mapping Purposes*

The networks that stand to be constructed under the Recovery Act are making use of taxpayer dollars. Section 6001 of the Act also incorporates numerous public interest provisions and purposes, evincing Congress' intent that the public interest come first when it applies to these networks. The public has an important interest in ascertaining the reach of broadband

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<sup>23</sup> 74 Fed. Reg. 10718 (March 12, 2009).

<sup>24</sup> See *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*, WC Docket No. 07-38.

<sup>25</sup> Pub. L. 110-385, § 106 (Oct. 10, 2008).

throughout our nation, so that any strategy or initiative going forward can be based on sound information on a community by community basis.

NTIA should therefore require, as a condition of receipt of Broadband TOPS grant funding, that information sought pursuant to Section 6001(l) of the Act be disclosed as it applies to networks built using federal grant funding. This requirement should also be extended to networks built using RUS funds that were received as part of the Recovery Act. It only makes sense to require that publicly funded networks disclose the reach, capacity, speed, price, and other important information to fulfill another requirement imposed on NTIA under Section 6001.

*B. Broadband Mapping Should Allow Consumers to Discover What Connectivity Options are Available, and Provide Pricing and Speed Information*

Any map is only as good as the information it contains. A map of Washington, D.C.'s Metro rail system would not be as informative if station names or line colors were omitted. A trail map in a national park is not useful to hikers unless it provides information on how far a trail goes and how difficult the trail can be. A road map does not help drivers reach their destination quickly unless it contains every available highway and surface street, allowing the driver to choose the most efficient route. Within that context, broadband mapping should illustrate the broadband service options, network topologies, and prices available in all communities of a state. Such data can be used to begin to direct public and private investment.

A consumer, at a minimum, should be able to see what providers offer broadband services to their home. This should include the kind of connectivity provided (fiber optic, cable, WiMax, etc.) and the relevant differences between them, so that a consumer appreciates the various delivery options available. Speed should be included as part of a broadband map, so long as that speed is a measured actual speed during peak usage hours. Consumers should not be lured in by the glow of "as advertised" speeds, but instead have a reasonable understanding of

what kind of connectivity they can expect – in both directions – at times when they, too, are most likely to be online. The cost of service is essential information a consumer should expect to find listed on a broadband map. Cost should indicate not only the monthly service charge, but also inform the consumer of additional taxes, fees, and installation or termination charges that may be involved. Armed with this information, consumers will be well situated to select a broadband connectivity option that meets their anticipated needs and price point, while knowing that other alternatives exist should they decide their current connectivity option isn't working out as planned.

*C. Mapping Information Should be Available to All Interested Parties for Any Lawful Reason*

Just like consumers need broadband mapping information to decide what options best meet their individual needs, local governments need broadband data to better understand what areas of their community are not having their connectivity needs fully met. While the ends achieved using broadband deployment and availability data might differ, the means by which either party can make an informed decision remain the same – how far does service reach, and at what speeds and prices can access be gained? Local governments should have access to broadband deployment and mapping data equal to that afforded to consumers.

*D. Data Granularity Should be the Same as Currently Required by FCC Form 477*

While the greatest possible granularity is always desirable, Commenters here acknowledge that any data collection and disclosure effort will place additional burdens on broadband service providers. The FCC already collects broadband data at the census tract level of granularity, and to ask providers to offer information with any greater granularity might prove to be too onerous a requirement. While the kinds of information collected might differ, NTIA

should require providers to disclose its broadband data on the census tract level consistent with the current requirements of FCC Form 477.

*E. NTIA Should Keep the Public Interest Elements of Broadband Mapping as its Primary Focus*

Since the beginning of the transition process for the Obama administration, there has been a concerted effort to make the work of government as open and transparent as possible. Whether it takes the form of the Recovery Act's website, [www.recovery.gov](http://www.recovery.gov), where taxpayers can follow the spending of their dollars, or is evinced through the inclusive and public nature of NTIA's grant program implementation process to date, a new emphasis on open government spending and action has washed over our nation. Broadband mapping is vitally important to America's economic future, and given that funding for this endeavor comes from the taxpayers themselves, it only stands to reason that the spirit of openness in government should extend to broadband data collection.

Because of the overriding public interest considerations involved with broadband mapping, mapping funds should not be appropriated to mapping agencies that have on their board members of the private telecommunications industry or who receive significant funding from private telecom companies. These entities are the same companies that, to date, have failed to bring broadband to every corner of our country with speeds and capacity that even compare to our competitor nations. Instead, they have acted in a manner to maximize profits and returns to shareholders, which, as profit seeking entities, is their right and mission. NTIA should not allow these same profit seeking entities to drive a data collection process that was designed to serve the American public both by providing comprehensive connectivity information and aiding the development and continued implementation of a national broadband strategy.

Broadband mapping grant funding should therefore only be awarded and disbursed to those applications which include the participation of non-industry board members and are focused mainly on the public interest, and not funded in part or whole by private telecommunications concerns.

*F. NTIA Should Collect and Regularly Update Adoption Data*

As was discussed in the context of selection criteria, simply tracking the reach, availability, and affordability of broadband connectivity is not enough. Understanding where adoption still lags behind the national average can help inform NTIA, the FCC, and federal legislators as to what additional steps are needed to make sure that all Americans not only have access to broadband, but are adopting and using it as part of their everyday life. To provide lawmakers and policymakers with the other piece of the puzzle, NTIA should also require broadband mapping grant recipients to collect data on adoption rates, and periodically update their information so that areas with slower adoption rates can be identified and receive more targeted efforts to drive up adoption.

**XIII. NTIA SHOULD FOLLOW EXISTING FEDERAL REGULATIONS WHERE IT APPLIES TO AN APPLICANT'S 20% MATCHING NON-FEDERAL CONTRIBUTION**

Under the terms of Section 6001 of the Act, grant applicants to NTIA are required to provide 20% matching funds from non-federal sources.<sup>26</sup> This same requirement is also included as part of the State Broadband Data and Development grant program.<sup>27</sup> Given the current state of credit markets and the overall difficulties many potential applicants face in these tough economic times, Commenters would urge NTIA to follow the currently existing regulations at

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<sup>26</sup> Pub. L. 111-5, § 6001(e)(5) (Feb. 17, 2009).

<sup>27</sup> Pub. L. 110-385 § 106(c)(2) (Oct. 10, 2008).

15 CFR § 24.24 and allow applicants to apply in-kind contributions toward their overall 20% matching requirement. Many local governments can readily access the kinds of in-kind contributions considered under the current regulation, whereas bond financing or other credit-based cash approaches might not be as available.

NTIA should make clear that applicants can meet their required 20% match through the use of in-kind contributions as spelled out at 15 CFR § 24.24.

#### **XIV. NTIA SHOULD CONSIDER THE NATURE OF AN APPLICANT WHEN DECIDING TO PROVIDE LESS THAN THE MAXIMUM FUNDING LEVEL**

Where an applicant is a governmental entity or other non-profit otherwise qualified to apply for Broadband TOPS grant funding, NTIA should make best efforts to see that these applicants receive as close to full funding as possible, since these applicants are best suited to achieve the public interest goals included in the Act. Where, however, an applicant is primarily or entirely a private for-profit entity, NTIA should fund these projects only to the level necessary to meet the public interest goals of the Act. For-profit entities are more likely to have ready access to cash, credit, or debt financing options than governments or non-profits, and as such should be encouraged to maximize the level of private financing and investment in a project before turning to NTIA for the remaining necessary funds. In the case of a public-private partnership, for example, the private entity should be required to provide half of the necessary funding that would be expected under a traditional partnership.

#### **XV. NTIA SHOULD NOT MAKE THE REQUIRED DEMONSTRATION OF “BUT FOR” NEED TOO ONEROUS**

Section 6001 is clear that every applicant must be able to demonstrate to NTIA that, “but for” the award of a Broadband TOPS grant, the project contained within the application would

not have been implemented.<sup>28</sup> Since one of the purposes of the Act is to stimulate “economic growth and job creation”,<sup>29</sup> it makes sense to fund only those projects that would otherwise not have gotten off the ground and provided jobs and economic stimulus to the affected area. While key to meeting a purpose of the Act, NTIA should make sure that the required showing is not prohibitively onerous or requires evidence that could preclude applicants from participating in the grant program. Simple evidentiary showings, such as decreasing tax revenues, a demonstration of unavailability of bond financing, or other comparable numerical showing should suffice to prove to NTIA that a project would not have commenced without federal funds.

**XVI. NTIA SHOULD REQUIRE A MORE SUBSTANTIAL SHOWING OF NEED FROM AN APPLICANT REQUESTING A WAIVER OF THE 20% MATCHING REQUIREMENT**

There are bound to be projects that meet the purposes of the Act and would otherwise be qualified to receive a grant award, but require funding above and beyond the statutory limit of 80%. Certainly, in this economic climate, it is understandable that an applicant or group of applicants may have difficulty in coming up with the required 20% matching funds under the Act. Where these applicants apply for a waiver of match requirements,<sup>30</sup> NTIA should require a more substantial showing of financial need than is necessary under the “but for” test required to qualify for the receipt of grant funds. While these additional requirements should be tailored in a manner that does not preclude applicants from pursuing a waiver by being too burdensome, applicants should be asked to demonstrate serious financial need. Evidence of rapidly shrinking tax revenues, high unemployment, low median household income, or other additional indicators of need may be required to meet NTIA’s requirements.

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<sup>28</sup> Pub. L. 111-5 § 6001(e)(3).

<sup>29</sup> *Id.* at §§ (b)(5).

<sup>30</sup> Pub. L. 111-5, § 6001(f) (Feb. 17, 2009).

**XVII. NTIA’S PROPOSED THREE ROUND GRANT APPLICATION PROCESS IS FEASIBLE FOR AWARDING ALL GRANTS BY THE END OF THE 2010 FISCAL YEAR**

At the first public meeting held to start the implementation comment process, Mark Seifert of NTIA announced that NTIA was considering the creation of three grant application and award rounds, to be completed no later than June of 2010. Given that the Act requires NTIA to obligate all of its available funds no later than the end of the 2010 fiscal year,<sup>31</sup> this proposed timetable for obligating funds seems more than capable of meeting the statutory deadline.

**XVIII. APPLICANTS SHOULD BE REQUIRED TO DEMONSTRATE THAT A PROPOSED PROJECT CAN BE COMPLETED ON A REASONABLE TIMELINE WITHIN TWO YEARS**

Recipients of Broadband TOPS grant funding must substantially complete the funded project within two years after winning a grant award.<sup>32</sup> As part of seeing this goal met under the Act, NTIA should require applicants to demonstrate that some planning has been completed for a project, such as a cost-study estimate or rendering of preliminary engineering plans. This showing of preliminary plans should not be confused with projects that could have proceeded without Broadband TOPS grant funding, which cannot receive funds under the Act, but show that an applicant has done more than simply ask for funding without having done due diligence to make bona fide estimates as to project scope and expense. A showing of due diligence on the preliminary stages of a project should also be coupled with the inclusion of a proposed project completion timeline that reasonable mirrors the work already completed by an applicant. Where both of these elements exist, an applicant should be deemed capable of complying with §§ (d)(3) of Section 6001 of the Act, and still qualify for grant award consideration.

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<sup>31</sup> *Id.* at §§ (d)(2).

<sup>32</sup> Pub. L. 111-5, § 6001(d)(3) (Feb. 17, 2009).

**XIX. NTIA SHOULD NOT TOLERATE WASTEFUL OR FRAUDULENT SPENDING OF TAXPAYER MONEY, AND SHOULD HOLD RECIPIENTS ACCOUNTABLE FOR SIGNIFICANT PERFORMANCE DELAYS**

The recent outrage over the awarding of bonuses to executives at American Insurance Group should prove a cautionary tale for anyone who provides or receives federal funding in this current economic climate. Taxpayers will not tolerate wasteful or fraudulent spending of tax dollars, and neither should NTIA. Congress was clear when it spelled out the five distinct categories of items where Broadband TOPS grant funding can be spent,<sup>33</sup> and while NTIA was provided some discretion to approve spending that otherwise fails to fit into these categories, NTIA should remain as steadfast as possible to the list provided by Congress. Where a grant recipient uses funds in a manner inconsistent with the Act, NTIA should immediately deobligated the remaining funds and, where possible, compel restitution of those funds that were spent in a manner inconsistent with the Act. While such swift repercussions are harsh, current realities illustrate that wasting taxpayer dollars must not be tolerated.

Another type of abuse of taxpayer funds could also occur during the course of performance under a grant award: A risk exists that projects may fall significantly behind their proposed schedule, or suffer from cost overruns. While slight delays are to be expected whenever a major infrastructure build takes place, major delays can lead to federal grant dollars being spent away well before a project is complete, while other, equally as deserving projects are left wanting for federal funds.

Should the application process fail to eliminate those projects most at risk for these kinds of protracted delays, NTIA should require any project that falls two months or more behind to provide a revised project timetable that demonstrates a genuine effort to catch up to the

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<sup>33</sup> *Id.* at §§ (g)(1-6).

originally proposed schedule. Where, at the next reporting interval, a project has failed to meet these new deadlines, NTIA should de-obligate funds and re-award the remaining funds to a previously unsuccessful applicant or new applicant, depending on where NTIA is in the awards process.

## **XX. DEFINITIONAL ISSUES**

Perhaps no set of questions will be more integral to the outcome of the Broadband TOPS program than the definitions of key terms such as “unserved”, “underserved”, and “broadband”, or how the network interconnection and non-discrimination requirements are spelled out in grant recipient contracts. NTIA should craft these definitions in a manner that preserves the public interest elements of the Act while providing terms that are good not just today, but years from now as networks deployed using NTIA funds age and are periodically scaled to meet the evolving connectivity needs of our nation.

### *A. “Unserved” Areas Are Those Without Terrestrial Broadband Connectivity*

For the purposes of NTIA’s Broadband TOPS grant program, an area should be considered “unserved” by broadband where no wireline or wireless broadband connectivity is reasonably commercially available. This means consumers cannot purchase broadband service at rates comparable to those customers that are served or underserved. While this definition leaves out satellite broadband service, it is important to note that satellite does not offer the same speed, capacity or scalability of terrestrial networks, and therefore should not be included for definitional purposes.

### *B. “Underserved” Should Take Into Account Five Key Considerations*

Defining “underserved” to include service at very low speeds or capacity has significant adverse consequences for the driving purpose of the ARRA—to create American jobs as soon as

possible. Implementation of low-bandwidth services, particularly those that utilize existing wireline infrastructure such as copper, will result in purchases of large amounts of equipment that is manufactured abroad. Such an approach will create many manufacturing jobs in China and few installation jobs in the United States. In contrast, high-bandwidth networks require installation and construction of new facilities, as well as development of new applications and services and equipment enabled by those facilities; as a result, such networks create many construction, research, and development jobs right here in the United States.

We propose that “underserved” is a function of five key considerations:

1. Speed and Capacity. Anything less than the international standard is underserved and represents a national concession to be satisfied with our ranking as 17<sup>th</sup> in broadband internationally. As Rep. Boucher noted in his recent testimony, competition that provides no real speed is just as emblematic of an underserved community: “Underserved can also refer to communities with inadequate broadband speeds. A community should not be disqualified from the program because there are multiple providers offering broadband with a download speed of just 256 or 512 kbps.”<sup>34</sup>

Even by setting the definition of underserved below the peak that cable claims DOCSIS 3.0 will deliver, we will be setting it near only the median level for some Asian countries. We urge FCC, NTIA, and RUS to establish as its target the highest technically available speed and capacity, not a minimum standard that is not really “broadband” as it now exists in European and Asian countries.

Consider an example: as of this writing, the highest available residential speed in San Francisco (arguably, one of the most desirable markets in the world) is 10 Mbps downstream and 1.5 Mbps up—and these speeds are only available in one tenth of the city. For the rest of the city as of last fall, the highest residential speeds available from AT&T was its “Elite” Internet product—offering 6 Mbps downstream and 768 Kbps upstream. Comcast offered 8 Mbps down and 768 Kbps up, but only if the consumer purchased a bundle—other services as well as the Internet service. For an unbundled Internet product, Comcast would sell only 6 Mbps down and 384 up. These were the *best* services offered—and the priciest, affordable only for a few fortunate San Franciscans.

Compare these speeds to San Francisco’s competitor city Tokyo, where residents can buy approximately *100 times those downstream speeds and 1,000 times those upstream speeds*—for a lower price. And in China, massive attempts are underway to build

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<sup>34</sup> See Statement of Congressman Rick Boucher, Subcommittee on Communications, Technology, and the Internet, Oversight of the American Recovery and Reinvestment Act: Broadband, April 2, 2009, [http://energycommerce.house.gov/Press\\_111/20090402/boucher\\_open.pdf](http://energycommerce.house.gov/Press_111/20090402/boucher_open.pdf), p. 2.

networks with speeds of 10 GIGABITS per second—10,000 times the FCC’s definition of “broadband” and thousands of times the speeds available in the best “served” American cities.

2. Affordability. Even where high-speed, high-capacity service is available, communities are underserved if it is not easily affordable by low-income and middle-class consumers and small businesses. It may be that a carrier offers service of “up to” 20 Mbps upstream and 10 Mbps downstream, but at a price of \$140 per month to a residence and even more to a small business, with a minimum commitment of two years of payments, those services effectively do not exist for most Americans, even those in “served” areas. This increasingly standard price is a bar to service, and to broadband adoption, anywhere in the country.

Three large member communities of Respondents conducted extensive, statistically accurate research of their residents and businesses in the summer of 2008. The economists who analyzed the resulting data determined that high bandwidth services would see their greatest uptake at \$40, and that interest in high speeds drops off at higher prices. This figure is based on a cross-section of the community and is not indicative of willingness to pay for a digital inclusion product among low-income consumers. The 2008 market research suggested that the willingness of low-income consumers (defined as a household of four with less than \$ \$33,075 per year in income)<sup>35</sup> to purchase high-bandwidth broadband would peak at \$20 and then decline at prices above that amount.

From a digital-inclusion perspective, affordable broadband must be a service that all households can afford regardless of income. Consider that consumers in various Asian and European countries enjoy 100 Mbps symmetrical service for \$40 per month. In contrast, in most American cities, counties, and towns, \$40 buys speeds that are 94 percent slower in the downstream direction and 99.3 percent slower in the upstream direction.

Affordable rates and the resulting greater adoption of broadband services have importance beyond social equity. They will also lead to enhanced network performance and innovation. Robert Metcalfe posited the widely-accepted notion that the value of a network increases as the square of the number of its users. In other words, for each new user who joins a network, the total number of interconnections in the network—and therefore its overall communicative potential—increases by the number of current users. This is another reason why it is important that we develop a network that is accessible, affordable, open and ubiquitous: so that it will appeal to the maximal number of users.

We strongly urge that affordability be a major factor not only for determining the merits of each grant application, but also for determining whether or not a particular community is underserved.

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<sup>35</sup> The poverty guidelines were published by the U.S. Department of Health and Human Services in the [Federal Register](#), Vol. 72, No. 15, January 24, 2007, pp. 3147-3148.

3. Accessibility. Even where service is available, communities are underserved if it is not readily accessible. For example, even where it appears that technologies have been deployed, consumers may not be able to acquire it, even if they can pay. Residential and business consumers, even in major urban areas are often unable to obtain DSL at their premises even though their neighbors can. The situation is caused by three key conditions. First, a given area may be DSL-capable but all circuits configured to support DSL in the area are used. Second, a given area may be DSL-capable but all the DSL capacity is used. Third, circuits configured to support DSL may be available but the copper plant extending to a given premises is not capable of supporting the DSL. Cable modem coverage also has accessibility issues. Cable-television plant was originally installed to serve residential customers and cable's traditional footprint thus does not stretch into business areas. Businesses not near residential neighborhoods are often not equipped with the infrastructure to support cable modem service.
4. Use not limited by network operators. Even where service is available, communities are underserved if use of the service is limited or manipulated, by network operators or providers, for political or commercial factors. For example, a consumer is underserved if the operator offers only an asymmetrical service that precludes operation of a home-based business, degrades full-motion video, or precludes distributed, collaborative development of media or software code. Similarly, a consumer is underserved if an operator has built a network capable of high, symmetrical speeds, but chooses not to sell services at those symmetrical speeds.
5. Communities served by copper based last mile landline networks should be included within the definition of underserved for the following reasons:
  - i. We are concerned that communities where DSL or cable modem service is available not be automatically considered "served." The assumption that these networks deliver adequate broadband service is grossly incorrect. Cable's Hybrid Fiber/Coaxial (HFC) networks and the phone companies' DSL counterparts are unable to keep pace with growing bandwidth demand. They offer theoretical maximum speeds, which are always subject to network congestion and distance limitations and often not in fact available to subscribers.

Many communities around the country served by these networks, including several major metropolitan areas, are very concerned that their residents and businesses will fall behind other areas of the country and communities in Asia and Europe that are building next-generation fiber-to-the-home networks. They fear that their residents and businesses will be unable to take advantage of new and emerging applications made possible by next generation networks. For this reason, they already have plans in place to build fiber projects in their communities but lack the financial resources. These communities should be given the opportunity to meet their communications needs and make the strategic investments necessary to ensure their competitive status in the global economy.

The cable and telco networks were designed as single purpose networks for video and voice, respectively. They were not designed for the high capacity symmetrical applications that are emerging—and that have already become the lifeblood of American commerce, community life, and democratic participation. While cable and telco engineers have taken incremental steps to prolong the life of these networks, they will eventually become “tomorrow’s bottlenecks,” as a 2002 study by the Department of Commerce predicted.<sup>36</sup>

ii. The speeds advertised by carriers are theoretical and are seldom achieved. For example, in the case of cable, despite the improvements of DOCSIS 3.0, which cable operators are touting as capable of providing 100 Mbps and more, the fact remains that users must share that available bandwidth to each node. The actual speeds realized by each user will be a fraction of that speed particularly during peak usage times. To put this in perspective, a 2008 technical audit of the Comcast cable system in Seattle revealed that on average 900 homes are passed per node. Assuming a penetration rate of 50 percent, 500 users would share the available bandwidth at each node. The more users log on simultaneously, the slower the Internet connection. This is why cable companies must always qualify quoted speeds as “up to”.

In the case of phone company networks, DSL and ADSL2+ networks can reach theoretical maximum speeds of “up to” 24 Mbps downstream under ideal conditions (and after substantial monthly payments by subscribers). However, speeds decrease the farther a residence is located from the Central Office or a multiplexer in the field. Actual speeds are a fraction of the advertised speeds, particularly as one gets further from the CO, and upstream speeds are usually below 1 Mbps at best.

iii. The services offered over DSL and cable lack symmetry or robust upstream bandwidth. Cable’s HFC technology is almost all downstream. The cable operators still dedicate only about five percent of their available spectrum to upstream transmissions. Their network configuration has been likened to an alligator: big mouth and small ears. By design, in order to deal with the limited capabilities of copper wiring, DSL, ADSL2+ and other variants are high asymmetrical. They are based on the copper transmission technology of the 19<sup>th</sup> Century and are simply unable to scale to provide the high symmetrical speeds required by businesses and consumers today. Indeed, much of the old copper plant used by phone companies for last mile connections will not support high bandwidth because the twisted pair copper connections to the home are aged.

### *C. Broadband Should be Defined Aspirationally*

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<sup>36</sup> “Understanding Broadband Demand: A Review of Critical Issues.” Office of Technology Policy, U.S. Department of Commerce, September 23, 2002.

America's local governments recognize broadband as critical infrastructure – a utility that is essential to economic and community development. And we recognize that greater speeds and capacity are required than the American private sector has been willing to deliver. In 2006, YouTube alone consumed more bandwidth than did the entire Internet in 2000. According to John Chambers, CEO of Cisco Systems, video and online collaboration will drive network traffic to an annual growth rate of between 300 and 500 percent over the next several years. Our definition of broadband must keep pace with the current extraordinary growth of Internet use, must account for (and enable) future growth and innovation, and must enable the United States to compete with nations abroad that have far outpaced us in their deployment of high capacity broadband.

The Federal Communications Commission (FCC) has increased the speed at which a given Internet service is considered to be broadband. The new definition includes a service that delivers a burstable speed of at least 788 Kbps in at least one direction. Although this is a substantial increase over the FCC's previous definition (200 Kbps) it is still not adequate, and cannot be considered even close to "broadband" as defined by European and Asian standards. This definition does not recognize the need for symmetry of data rates (i.e., download and upload speeds) and the substantial requirements of many current applications.

We suggest it is more appropriate to define broadband in the context of supported applications. Within that framework, broadband is a connection that is sufficient in speed and capacity such that it does not limit a user's desired application. Thus, as users become more and more sophisticated, and applications become more and more bandwidth-intensive, the required speed and capacity of a given connection will need to continually increase to be considered broadband. Supporting telework and other bandwidth-intensive initiatives for residential and

small businesses customers currently requires a connection of at least 10 Mbps symmetrical and, realistically, 20 to 35 Mbps symmetrical in order to use today's applications. For enterprise and other power users a 1 Gbps service is required. This approach also provides a level of technological neutrality that allows for the deployment of wired or wireless networks depending on the real and evolving needs of a community. For example, this approach gives an underserved inner-city community the ability to deploy ad hoc wireless networks as a means of leveraging existing community resources while concurrently working on adoption and computer literacy programs that help drive demand for the kinds of applications discussed above. In essence, you allow for the provision of a broadband gateway while users begin to understand the power of broadband connectivity.

The term "broadband" was popularized in the late nineties with the introduction of cable modem and telco DSL service. It was used primarily to distinguish these services from dial-up Internet access over telephone lines. So in reality "broadband" has come to mean a communications service that has only two distinguishing elements: always on (as opposed to dial up), and any speed greater than that of dial-up modems (56 kbps).

The problem with this understanding is that almost any level of current connectivity can be advertised as broadband regardless of the applications that are enabled. There is no distinction between connecting over a public Wi-Fi network to download a web page or engaging in video conferencing in High Definition over a fiber-to-the-home network. The former application requires about 200 kbps but the latter requires about 20 Mbps symmetrical. However, both are said to be using broadband.

To arrive at any useful definition of broadband we must link the speeds offered to the applications enabled. In our view, to be considered broadband a service should:

- Aspire toward and be scalable to the international standard for data communications: 100 Mbps to 1Gbps symmetrical, with scalability in the next decade to 10 Gbps, also an emerging international standard.
- Have high speeds capable of supporting integrated voice, video and data applications.
- Be measured by speeds actually experienced by the end users during peak times -- not the theoretical “up to” speeds advertised by most providers.
- Have symmetrical connections or at least robust upstream speeds to facilitate interactivity. Every person is not only a receiver of information but potentially a producer. If Americans are to be developers and creators as well as consumers, symmetrical service is imperative.
- Ensure high reliability and low latency.
- Enable innovation and transformative breakthrough interactive applications such as full motion HD video conferencing, real video-on demand, "virtual" education and healthcare.

Top quality interactive video – the kind that enables educational applications, aging-in-place, rural telemedicine, and carbon-reduction through telework -- requires 22 to 25 Mbps in both directions. Broadband technologies should be scalable from those levels. Services not meeting that standard provide high speed Internet access but lack the bandwidth to enable the distributed development, collaborative innovation, and data-intensive interaction that are hallmarks of the global economy – and that are necessary for the United States to compete with our competitor nations in Europe and the Pacific Rim.

High-bandwidth broadband is widely-recognized as a key driver of future economic competitiveness, and is also regarded as a facilitator of political discourse and activity—the most important medium for communication and expression of political ideas since the advent of television. High-bandwidth broadband can:

- Facilitate democratic and free market values, by facilitating an open, standards-based Internet platform for all who wish to innovate, compete, and serve the public over the network.

- Enhance digital inclusion by facilitating affordable access to this incomparable enabling resource for community groups, students, the elderly, and vulnerable populations.
- Facilitate economic development by
  - Creating jobs and the enhanced, multiplied economic activity that accompany jobs
  - Enabling small business creation and growth
  - Enabling “in-sourcing,” in which local businesses hire local workers to provide broadband-based services from home—rather than outsourcing to foreign countries
  - Supporting businesses with very high bandwidth needs, such as digital media and software development
  - Enabling workforce education
  - Enabling telework and distributed work
  - Promoting development and revitalization zones
  - Facilitate on line collaboration and organization
- Enhance education and technology education by creating communications among schools and between schools and other institutions such as Universities, programmers, and social service agencies.
- Provide a highly reliable, resilient backbone for wireless services—improving performance and capacity through fiber “backhaul.”
- Support current and future public safety and government communications systems—saving communities the enormous, unending cost of leasing circuits, and simultaneously providing a higher-quality, higher-capacity, more reliable, more secure transport for key City users such as law enforcement, fire, emergency management, and public health.
- Facilitate interoperable communications among neighboring jurisdictions.
- Promote private sector competition, by providing a platform for numerous competitors to quickly and inexpensively enter markets (without having to build their own, duplicative networks) and offer competing, differentiated broadband services and access.

*D. The FCC’s Broadband Policy Statement Should be a Definitional Floor, and NTIA Should Favor Open Networks*

The FCC broadband principles should serve as the absolute floor. Adherence to these principles should be a requirement but we must do more. The principles are not currently enforceable and do not bar network owners from discriminating in favor of their proprietary or affiliated content applications and services. Non-discrimination is vital to the future of the Internet. Network owners should not be allowed to discriminate in terms of content transport or unnecessarily interfere in communications between end points on the network. Where packet prioritization is deemed necessary to optimize certain applications network owners must provide

similar transport terms to all providers of like services. We note that many current network management practices that lead to the throttling of some communications are a function of inadequate bandwidth. Simply put, many existing networks that rely on copper connections lack the capacity to support today's Internet, where the growth of two-way video communications is exploding and users are becoming creators and distributors of content, applications and services.

Many of these services will compete with services offered by the network owner. In this context, without strong guarantees of neutral treatment for all users and content providers, network owners have every economic incentive to favor their own content and services. We have recently witnessed such behavior in a number of circumstances. The mere threat that a new service could be thwarted by the network owner will have a chilling effect on innovation and inhibit research and development. This is another reason why we urge the NTIA to direct grant monies to projects that aim to expand the capacity of networks and that allow service provision by independent entities on non-discriminatory terms.

Despite protestations from certain quarters, non-discrimination and openness are not new concepts and without them the Internet would not have been possible. In the early days of ARPANET researchers were able to use the underlying connectivity available through the phone network to transport data packets among connected computers. They had access to the phone networks because the networks were regulated as common carriers and subject to open access rules. In essence you had network neutrality. The Internet became so successful because anyone could use the network to communicate with other network endpoints, unfettered by any unnecessary mediation from the network owner. This is what is referred to as the end-to-end principle of the Internet. Cable and phone networks were originally designed as single purpose networks to provide respectively: one way video distribution and voice service. If you wanted

cable or voice service you needed to buy it from one of the network providers since the service and the network were parts of an integrated whole. Their network architectures were predicated on the provision of these services. A rough analogy is a grandfather clock where the arms, weights, pendulum, gears and pulleys work together to provide a single application: the time.

The introduction of Internet Protocol changed that. IP decoupled the application from the transmission medium. Today's Internet applications and services are determined by the software and hardware of the users residing at the network edge.. Because its design is not predicated on any specific service the Internet will give rise to many new services as users experiment with the available bandwidth and create new services and applications and solutions to address their individual, community or business needs. The potential uses of the Internet are limited only by the imagination. Some opposition to network neutrality is really about putting the Internet genie back in the bottle. NTIA should favor open networks

It is expensive – perhaps prohibitively so - to build multiple networks in one community. Thus the owner of the first and therefore dominant network can set unfair terms and prices for others to use it. On the other hand, multiple service providers who can compete over a common platform will fuel innovation in broadband services, which will benefit local communities and society. Thus structural or regulatory measures must be employed to protect the right to non-discriminatory access to networks for all competing service providers and to forestall unfair business practices by network owners. We recognize that private networks developers must be able to seek a realistic return on investment. This is consistent, however, with providing access on non-discriminatory terms. We urge the NTIA to focus on projects that allow service competition over a common infrastructure. We will never know what is possible with the Internet or be able to fully exploit its potential until we have active competition at the service

layer. Vertical integration of transport and content does not make sense in the Internet age and is a barrier to competition and innovation.

## **XXI. CONCLUSION**

Commenters and supporters of these comments urge NTIA and RUS to implement Section 6001 of the American Recovery and Reinvestment Act of 2009 in a manner consistent with the intent of the Act and that preserves the Act's public interest principles.

Respectfully submitted,

Libby Beaty  
John D. Russell  
NATOA

April 10, 2009

## **Appendix A Communities Expressing Support of Comments**

City of Ashland, OR, City of Corinth, KY, City of Granger, WA, City of Hillsboro, OR, City of Indianapolis, IN, City of Madison, WI, City of Rialto, CA, City of Sherwood, OR, City of St. Paul, MN, City of Toppenish, WA, City of Wapato, WA, City of Zillah, WA, City of Austin, TX, Howard County, MD, Access Humboldt: County of Humboldt and Cities of Eureka, Arcata, Fortuna, Rio Dell, Ferndale and Blue Lake, CA, TeleCommUnity, Rainier Communications Commission: Representing Bonney Lake, Carbonado, DuPont, Fife, Milton, Orting, Pierce County, Puyallup, Ruston, Steilacoom, Sumner, University Place and Wilkeson, WA; Marin Telecommunications Agency: Representing the County of Marin and the cities of Tiburon, Belvedere, Sausalito, Mill Valley, Corte Madera, Larkspur, San Anselmo, Ross, Fairfax and San Rafael, California, National Public Lightpath, Bay Area Video Coalition (BAVC), Center for Asian American Media, Independent Television Service (ITVS), Institute for Next Generation Internet at San Francisco State University, Ninth Street Media Consortium, Public Radio Exchange (PRX), San Francisco Jewish Film Festival

## **Appendix B Shovel Ready Projects**

<http://www.natoa.org/documents/NATOA%20CBB%20examples%20Most%20Recent.pdf>

## **Appendix C Abstracts of Communities Interested in Broadband Funding**

In the process of offering local communities the opportunity to join in these comments, we also offered communities the opportunity to tell their own story with respect to their needs and interests in broadband. Below are those stories which were provided, separate from those gathered as “Shovel-Ready Projects” which we’ve attached to these comments.

### **City of Ashland, OR**

The City of Ashland, Oregon owns and operates the Ashland Fiber Network, a municipally owned broadband network consisting of HFC, FTTP, and wireless broadband services.

Ashland is a tourist based economy with the Oregon Shakespeare Festival. Unemployment in Jackson County has doubled since last year and is now at 13%.

President Obama visited our area during his campaign.

We’re seeking federal stimulus money to extend our plant to reach into rural areas which are currently under served by broadband. We already have some wireless reach into adjacent rural homes immediately outside of our urban growth boundaries, but have plans to extend network reach considerably further out.

Charter is a provider in this area, but they are on the verge of filing for bankruptcy. I doubt it'll happen in our area, but here's what happened this week about 80 miles away. [http://www.illinois-valley-news.com/archive/2009/03/25/story-cable\\_unplugged.html](http://www.illinois-valley-news.com/archive/2009/03/25/story-cable_unplugged.html)

### **City of Cornith and City of Williamstown, KY**

The City of Williamstown, which has offered High Speed Broadband Internet throughout its city limits for the last three years, is seeking funds to expand its service to the un-served and underserved central and southern area of Grant County, KY, including the City of Corinth, KY.

The goal of this project is to build approximately 18 to 20 miles of fiber optic plant, connecting to our existing fiber plant, and offering broadband connectivity via fiber to the home (FTTH). The build would run along US 25, a main corridor of traffic for the area, which runs parallel to Interstate 75. The service would immediately pass approximately 500 homes, 28 businesses and 7 churches, most of which lie in an un-served area by broadband services. These numbers do not reflect the homes and businesses that would then be reachable by various roads branching off of US 25 and KY 330. Larger service providers from Cincinnati, OH, and Lexington, KY have historically overlooked this area because of its rural nature, low density and location.

Because of the small size of the City of Williamstown's, Broadband operation, it can adjust and move quickly on projects. Upon funding, the City of Williamstown can immediately launch the project and begin engineering, development and then construction of the expansion. And, because of the City's small size, all of these services mentioned will be contracted out placing funds directly into the economy. Additionally, this expansion of our fiber system will create the need for additional permanent personnel by the City of Williamstown to maintain and operate the additional growth of the Broadband system.

The City of Corinth, as well as the rural area of Grant County between Williamstown and Corinth, needs this broadband deployment. The City of Corinth has recently annexed 1800 acres into its city limits. Mayor of Corinth has stated that there is a proposed development for the 1800 acres annexed, which includes a major retail center, Research and Development Park, as well as housing and recreational features. The development proposes to create over 10,000 jobs for the area and more than six thousand homes being built. An equestrian area is also a possibility in this development as well as lakes for the recreation areas. This land development is planned over a three to five year build out from the start date, however a start date cannot be set until all utilities requirements can be met. Broadband availability is one of these requirements. Currently, Broadband is not available in area that is proposed for development. This land development, as well as the overall growth and development of all of central and southern Grant County rest on the availability of Broadband, and the City of Williamstown can act immediately on getting Broadband to the area with if it receives the much needed assistance from federal funding.

### **City of Mentor, OH (a member community of OH-NATOA)**

“The lack of adequate, affordable broadband in Mentor, has caused small businesses to relocate elsewhere. In this economy, we need every advantage possible. In addition, broadband is essential for public safety.”

## **Cities of Toppenish, Wapato, Granger and Zillah, WA**

The City of Toppenish, WA has an Intranet/Internet infrastructure in place that could be expanded to include the downtown area and businesses for Internet “hot spot” access. Increased server capacity, dual firewalls, partnership with wireless technology company, and a new job position could make that happen. Currently there is no funding to provide for the expansion.

The City of Wapato, WA is struggling to connect their buildings to incorporate an Intranet environment. Currently they are seeking proposals

The City of Granger and Zillah, WA are desperately in need of Intranet/Internet services. The four cities would be ready to put these services in place and include their businesses for economic development in their downtowns. The cities are already entered into an Interlocal agreement and could work through the Community Access Manager to develop these services and jobs.

## **Martin County, FL**

Martin County is a county in the state of Florida. As of 2000, the population was 126,731. The U.S. Census Bureau 2005 estimate for the county is 139,728. Its county seat is Stuart, Florida. Martin County was created in 1925 with the northern portion coming from St. Lucie County and southern portion coming from Palm Beach County. It was named for John W. Martin, Governor of Florida from 1925 to 1929. According to the U.S. Census Bureau, the county has a total area of 753 square miles (1,950 km<sup>2</sup>), of which, 556 square miles (1,439 km<sup>2</sup>) of it is land and 197 square miles (511 km<sup>2</sup>) of it is water, much of it in the Atlantic Ocean and Lake Okeechobee. The total area is 26.19% water.

### **Mobile Data Plan**

Martin County is looking to upgrade existing Martin County Sheriff’s Office mobile data system for law enforcement vehicles, and expand system for all Fire Rescue vehicles. The current system does not take advantage of the latest technologies, not compatible with planned consolidated dispatch and computer aided dispatch system, and does not allow interoperability between agencies. New system improves on ease of use, expanded capability, and operator efficiency. Fully integrated with all public safety data systems. Regional compatibility and interoperability will also be possible as this is the system used by Palm Beach County. New technologies make possible connecting dissimilar systems from other counties.

### **Strategic Communications Network**

This involves a high-level construction design plan regarding the construction of a 10 Gigabit fiber optic backbone network planned to serve the current and future telecommunications needs of Martin County. This network is referred to as the Strategic Communications Network. The need for such a network is premised on several factors. These include the expiration of the current Comcast Institutional Network/Dark Fiber Lease in 2009, the passage of the Florida Consumer Choice Act, which removed local franchising authority over cable television, the County's existing telecommunications services such as frame relay, Ethernet, DSL and VPN, along with new data services such as video, wireless, VOIP and the expansion of data traffic in the future with added end users and new applications. The plan is based upon a three year build.

**Appendix D**  
**Broadband Policy Statements of National Associations**

NATOA: <http://www.natoa.org/Documents/BroadbandPreamble%26Principles.pdf>

USCM: [http://usmayors.org/resolutions/76th\\_conference/tc\\_02.asp](http://usmayors.org/resolutions/76th_conference/tc_02.asp)

NACO (see p. 4, resolution 11):

[http://www.naco.org/Template.cfm?Section=telecommunications\\_and\\_technology&template=/ContentManagement/ContentDisplay.cfm&ContentID=28741](http://www.naco.org/Template.cfm?Section=telecommunications_and_technology&template=/ContentManagement/ContentDisplay.cfm&ContentID=28741)

NLC:

<http://www.nlc.org/ASSETS/570062A76DB4411C873E7FAA08FEC231/2009%20Broadband%20Resolutions.pdf>