

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

American Recovery and Reinvestment Act of 2009
Broadband Technology Opportunities Program and
Broadband Initiatives Program

Docket No. 0907141137-91375-05

**COMMENTS OF THE CITY OF NEW YORK
NOVEMBER 30, 2009**

The City of New York welcomes this opportunity to submit comments to NTIA and RUS on both the design of the BTOP/BIP application process, and the optimal scope and emphases of ARRA funded broadband programs for the second and final funding round. With regard to the former task, the City submits here several recommendations based on its experience filing two applications in BTOP's first round, one each in the Public Computer Centers and Sustainable Broadband Adoption categories. These recommendations relate to how NTIA and RUS might streamline the application process to eliminate redundancies, and most effectively provide information to applicants in Round Two. With regard to the latter, more complex task, the City submits a number of recommendations based on the experience and knowledge it gained conducting a comprehensive Broadband Needs Assessment Study ("Study") of its own population.¹

On the one hand, the City makes a set of recommendations based on the need it identified in the Study to address the problem of adoption, and makes several suggestions with regard to the best methods for addressing the adoption problem. Specifically, the City recommends that NTIA: 1) adequately emphasize the adoption side of the broadband "equation" by allocating significantly more funds to the Public Computer Center and Sustainable Broadband Adoption categories in Round Two, 2) prioritize those Infrastructure applications that link to adoption-focused projects in the effort to address both sides of the broadband problem, and ensure maximal economic impact, 3) in evaluating adoption-focused programs, prioritize projects that seek to address the adoption problem in a holistic fashion, confronting the multiple obstacles to adoption in concert, and 4) regard low-income consumers as a particularly vulnerable population, and prioritize those applications that serve them specifically.

The City's Study also provided useful information on both the optimal methodologies for identifying broadband needs in densely populated urban areas, and on the ways in which any remaining infrastructure needs in such areas could best be addressed. Therefore, the City also submits here several recommendations based on this experience with regard to BTOP's guidelines and emphases for Infrastructure projects in Round Two. In particular, the City suggests: 1) that census blocks are not a feasible unit for gathering data to demonstrate need in urban areas, 2) that, therefore, applicants should be allowed to individually define a feasible unit in demonstrating the need for service, 3) that within these units, the standards for demonstrating that a geographical area is "underserved" be modified, increasing availability and adoption thresholds to allow a greater number of urban projects to qualify, 4) that broadband speed thresholds be flexible, based on the demonstrated needs of the proposed service area, and 5) that, across all areas, and in keeping with the statutory requirements of BTOP, Infrastructure projects serving community anchor institutions or organizations and agencies serving vulnerable populations be eligible *on their own merits*, without being required to demonstrate need based on geographical data.

In addition, based on its extensive experience in the public safety communications area, the City recognizes the difficulty public safety faces in obtaining adequate funding to maintain and develop broadband systems, particularly in these difficult economic times. In this regard, we urge NTIA to reconsider its previous decision to link public safety funding under BTOP to "unserved" and "underserved" areas, and, rather, establish a separate funding category specifically targeted to public safety broadband projects.

¹ As has been noted in several previous filings related to the BTOP and BIP programs, New York City rigorously analyzed broadband deployment and adoption across its population, and within specific segments of the population, in 2006/7. This Study included four major components: (1) an inventory of existing and planned broadband infrastructure; (2) mapping of broadband availability at the residential address level; (3) detailed analyses of adoption trends and patterns; and (4) gathering of input from residents citywide as well as representatives of hundreds of institutional stakeholders in the public, private and nonprofit sectors. As the City has emphasized throughout its filings, the major conclusion of this Study was that broadband is widely available in New York City, and that the capacity and speed of New York's networks are on par with best-in-class residential networks nationwide, but that *adoption* citywide is highly inconsistent. Specifically, adoption among low-income residents was found to be dramatically lower than that of residents in other income groups. And this gap was not projected to narrow significantly, through at least 2012, in the absence of programs specifically targeted toward increasing adoption rates among low-income households. The Study further found that obstacles to adoption within this particular population were various, and that individual low-income residents typically faced several obstacles simultaneously. These obstacles included (1) the cost of broadband service, (2) the lack of computer ownership, (3) a lack of digital literacy skills, and (4) the failure to perceive value in broadband adoption, such as a clear impact on a child's education or a demonstrated opportunity to advance employment or to address a major health problem. For more information, see *New York City Broadband Landscape and Recommendations*, July 2008, available at http://www.nyc.gov/html/doiit/downloads/pdf/bac_presentation_7_30_2008.pdf

I. The Application and Review Process

A. Streamlining the Applications

The City has not found the application process to be overly burdensome overall in Round One. However, we suggest that the following steps might be taken in the effort to streamline the process for Round Two:

- 1) Applicants in the BTOP Public Computer Center and/or Sustainable Broadband Adoption categories should be provided with the detailed budget template that will be required in the Due Diligence stage at the beginning of the application process. By using this detailed budget template to generate the summary SF 424 forms required in the application itself, applicants would avoid spending time adapting their individual budgets to the detailed template in the Due Diligence stage, and would likely reduce errors in the summary forms.
- 2) The online application system should allow multiple applications from the same entity to share certain types of application information and/or documentation. NTIA/RUS might, for example, allow applicants to enter basic identifying information in one place for all applications, and allow the sharing of certain attachments between multiple applications from a single entity (e.g., historical financial statements).
- 3) The City found that in Round One, character limits listed in the application materials were not always strictly consistent with the number of characters the applicant could actually input into the online application form. As a result, last-minute editing of essay question responses was required. A more precise design of the online form in this regard would alleviate this extra work.
- 4) In Round One, the City found it difficult to represent its project timelines in a text-only format. We felt that graphic representations would have been easier to read, and create, and we recommend that NTIA/RUS allow applicants to submit project timelines as attachments in Round Two in order to enable use of this format.

3. Specification of Service Areas for Infrastructure Projects

While census blocks may be a feasible unit for broadband data collection and documentation in areas with relatively low population density, New York City's experience conducting a comprehensive study of broadband availability and adoption indicates that the census block unit is highly problematic for urban areas.

It is by now widely recognized that the United States broadly faces significant difficulty gathering reliable data on broadband availability and adoption. In conducting its 2006/7 Study, New York City found that it was not exempt from this difficulty. While the City had access to broadband provider data, as well as information from major third party market research studies, it found that detailed, census block-level data about broadband availability and adoption was not readily available. Furthermore, it found that creating this data anew would be prohibitively costly, and time consuming due to the City's high population density. In New York City, there are 36,880 census blocks, each with an average population of approximately 217. A statistically significant survey of the City at the census block level would therefore require an extraordinarily large sample size, making this task quite onerous for densely populated urban areas such as New York City.

Due to the difficulty of garnering data at this detailed level in urban areas, the City submits that the requirement of census block-level data *virtually disqualified* cities from applying for funds under the Infrastructure category in Round One. And because this category represented the largest funding allocation available through BTOP, the census block limitation unduly discriminated against prospective urban projects. In order to allow urban areas fair access to these funds, New York City recommends that NTIA allow urban areas to use other verifiable methods to demonstrate low availability and/or adoption of broadband service, and substantiate the need for an Infrastructure project.

The City recommends that NTIA allow applicants to define their own geographical units in order to demonstrate need here, so long as they can provide compelling, verifiable data about availability and adoption levels in the target area. We further recommend that the standards for identifying “underserved” areas be generally lifted slightly, and made more flexible with regard to minimum speeds. Please see section II (B) below for the City’s recommendations on standards for identifying “underserved” areas in this regard.

In addition, the City recommends that NTIA allow applicants to propose discrete, high-need facilities, such as public housing buildings, or unique community anchor institutions, such as schools or libraries, as service areas. And in these cases, the City recommends that such projects be *entirely exempt* from the demonstration of need based on geographical data. By their mandates, these facilities and institutions serve the kinds of vulnerable populations the Recovery Act specifies in BTOP, and there is moreover no statutory requirement that projects serving these entities be located in “unserved” or “underserved” geographical areas. Please see section II(A)(1) below for the City’s full set of recommendations in this regard.

B. *Outreach and Support*

While useful information was provided through all outlets available in the first round, the City found the guidance manual, online Frequently Asked Questions and the telephone help desk most effective. The City experienced difficulty in getting questions answered via email.

It would be useful in Round Two if a greater number of terms/definitions were provided as part of the FAQ, guidance manual, or via another online resource. For example, rather than providing references to OMB circulars with regard to budget-related terms and categories, it would be useful to have such items clearly defined within NTIA/RUS’s own materials, such as in the FAQ or guidance manual.

II. Policy Issues Addressed in the NOFA

A. *Funding Priorities and Objectives*

1. *Middle Mile “Comprehensive Community” Projects*

The City agrees that “ensuring that anchor institutions, such as community colleges, schools, libraries, health care facilities, and public safety organizations, have high-speed connectivity to the Internet can contribute to sustainable community growth and prosperity.” We believe that broadband infrastructure projects which positively impact community anchor institutions or organizations and agencies serving vulnerable populations should be fundable projects under BTOP. And we support the prioritization of these institutions that is suggested by the RFI’s proposed emphasis of Middle Mile “Comprehensive Community” Projects. However, we feel that the needs of these institutions cannot be adequately addressed if Infrastructure funding to them is limited to these Middle Mile projects.

On the one hand, the City recognizes the importance of last mile projects to ensuring any middle mile facilities – existing or proposed – actually produce the “transformative impact on community development and...economic growth” the RFI acknowledges they can have. In New York City, for example, there are a number of community anchor institutions that lack adequate bandwidth capacity to serve their target populations, and require significant last mile investments, despite the availability of middle mile infrastructure. For example, in New York City’s approximately 1,200 public school buildings, which together serve over 1.1 million students, bandwidth demand far exceeds capacity. Without significant last mile investment in bandwidth, the City’s public schools cannot support the use of ubiquitous computing, or effectively deliver the educational resources and opportunities we view as vital to preparing students for a competitive world economy. Similarly, in New York City public libraries, demand nearly exceeds capacity on a daily basis during peak usage times, and last mile

bandwidth upgrades are needed across the City's three library systems to support an ever-increasing use of digital resources, and technology-dependent programs.

Furthermore, the City believes that, if a community anchor institution or an organization or agency serving vulnerable populations can demonstrate a compelling need from significant numbers of users for higher speeds, increased capacity or improved connections, then it should be allowed to seek Infrastructure funding *on its own merits*, without being required to demonstrate that it is geographically located in an "unserved" or "underserved" area. These organizations serve the populations BTOP is intended to serve by their own mandates. Indeed, section 6001(b)(3) of the Recovery Act explicitly specifies that BTOP is intended to, among other things, "provide broadband access, education, awareness, training, equipment and support to" community anchor institutions or organizations and agencies serving vulnerable populations, and makes *no statutory requirement* that the "unserved" and "underserved" criteria be applied to such projects.

Related specifically to schools, the City believes that priority should be given to high-capacity "future-proof" infrastructure – mostly notably (1) the broadband pipes that connect schools to the Internet (2) the MDF (main distribution frame) rooms that distribute the bandwidth throughout the school buildings (3) next-generation wireless access points which enable schools to take advantage of inexpensive netbooks and increasingly powerful handheld computing devices and (4) redundant broadband lines that would serve as a backup connection in case the main one into the school does down.

2. *Economic Development*

The City would not recommend an exclusive emphasis of programs that are part of broad, "regional" economic development plans. Such plans may or may not fully or accurately represent the needs of individual communities. And this approach might exclude high quality projects that are part of robust local strategies for economic development, but have simply not been integrated into larger-scale, regional planning.

The City does, however, see great value in the more general prioritization of projects that can both demonstrate a clear economic need for the proposed action, and account for the full scope of the broadband "equation," including not only making services available, but taking steps to ensure that those services are adopted by the target population, and ultimately have a meaningful impact on their economic well-being. In this sense, the City would support both the ability to demonstrate a clear need, and the integration of these kinds of "complementary economic actions" as evaluative priorities.

3. *Targeted Populations*

As noted in our response to the March 2009 RFI issued by NTIA/RUS, and in our first round applications, the major underserved population in New York City is its low-income residents. Results from the City's 2006/7 Study demonstrated that broadband is almost universally available to City residents in their neighborhoods, with nearly all of its residents being passed by at least one provider, and 89% being passed by at least two. However, a major disparity was identified in the *adoption* of these available services. Specifically, only 26% of low-income residents subscribed to available broadband at the time of the Study, as compared to 54% of moderate- and higher-income residents. The Study further projected that this gap would persist well into the future, absent targeted, large-scale programs designed to address it.

In reflecting on the Study's results in the broader context of American cities, it became apparent that urban areas generally suffer more acutely from a problem of adoption than one of deployment. With widespread deployment largely achieved, urban centers are likely to face significant *demand-side* obstacles to adoption, including issues of affordability, computer literacy and value perception. Low-income and other vulnerable populations, in particular, are more likely to face these obstacles. Given

that nearly 60 percent of the US population lives in highly urbanized areas, overcoming these demand-side obstacles represents a critical challenge toward driving nationwide broadband adoption on a sustained basis.² At the same time, as broadband becomes increasingly ubiquitous, whether via free market forces or government subsidized initiatives, the primary challenge nationwide will increasingly become one of adoption rather than availability. In this respect, urban areas such as New York City are harbingers of the challenges the nation will face if both supply- and demand-side obstacles are not simultaneously addressed.

In light of this fact, and given the clear statutory prioritization of adoption issues in the Recovery Act itself, the City recommends that the NTIA and RUS adequately address the issue of adoption broadly. In this interest, we recommend that NTIA shift a significantly greater amount of BTOP funds into *both* the Public Computer Centers and Sustainable Broadband Adoption categories. We submit that such programs must be prioritized if broader efforts to spur global competitiveness and economic revitalization through broadband are to be effective.

We also recommend that NTIA give particular weight to applications that propose to effectively serve low-income populations. BTOP explicitly prioritizes boosting the economic opportunities of this population through broadband, and the City's data clearly demonstrates the extent to which the broadband adoption problem disproportionately affects this group.

Furthermore, the City would recommend that NTIA prioritize applications that address the issue of broadband adoption in a *holistic* manner. As has been noted, the City's data demonstrates that low-income residents typically face multiple obstacles to broadband adoption simultaneously, including the cost of broadband service, the lack of computer ownership, the absence of digital literacy skills, or a failure to perceive value in broadband adoption. Based on these findings, the City feels that any effective, sustainable solution to lagging adoption must take a holistic approach that addresses these various obstacles in concert.

In the RFI, NTIA and RUS ask whether certain types of institutions should be prioritized for funding over others in Round Two. Low-income residents are served by a wide array of agencies and organizations in New York City. Public housing, schools and libraries all represent key institutions in the City's vision for addressing the technology needs of this population. Other institutions are vitally important as well, however. The City believes that NTIA and RUS should rely on the knowledge of individual communities in establishing standards to ensure that these populations are effectively served through BTOP or BIP funding. Rather than establishing objective priorities emphasizing one type of institution or another, NTIA and RUS should rely on the expertise of local governments, and the already identified needs of individual institutions here.

4. *Other Changes*

There was no allocation in the first BTOP round that specifically targeted public safety broadband projects. Rather, such projects were treated as adjuncts to broadband Infrastructure projects that serve the general public. As laid out in the ARRA, the BTOP has several explicitly stated "purposes," including "improv[ing] access to, and use of, broadband service by public safety agencies." We urge NTIA to allocate a portion of the remaining funds *specifically* to public safety broadband infrastructure projects. The urgent public safety broadband needs of many applicants will not necessarily fall squarely within the "unserved" and "underserved" area definitions established in the NTIA's previous NOFA.

B. *Program Definitions*

² According to the 2000 Census 58.7% of US citizens reside in urban areas with a population greater than 200,000.

In addition to the use of census blocks as a unit for demonstrating need, the definition of “underserved” in the Round One NOFA made it difficult for urban areas to qualify for funding in the Infrastructure category. As New York City’s own data indicates, the 50% threshold for availability, and the 3 Mbps threshold for speed are low relative to services generally available in urban areas. The required 40% threshold for subscribership is also low as an indication of whether an area is underserved. Indeed, a nationwide study by the Pew Internet & American Life Project found that broadband adoption stood at 63% of American adults as of April 2009; and at 53% among households with annual incomes of between \$20,000 and \$30,000. In light of this data, a 40% adoption rate may not be the appropriate eligibility “cutoff” point for Infrastructure funding. In the subsequent NOFA, NTIA should raise the definitional thresholds for availability and adoption levels in order to allow a greater number of urban projects to qualify for Infrastructure funding, and to conform more closely to the adoption rates found in credible, independent studies, such as the Pew report.

Additionally, the City urges NTIA to recognize that with regard to available speeds, needs depend significantly upon the types of institutions located within a given area, and the particular uses to which broadband service will be put. For example, the City’s 2006/7 Study found that in some industrial areas of New York City, there was an unmet need for very high-speed Internet service, based on the unique activities engaged by the type of businesses located therein. While available service in such areas may exceed a 3 Mbps threshold, it may not meet the predominant needs of the organizations located there. In light of this, we urge the use of a standard for speed availability that is flexible to the demonstrated needs of the proposed service area.