**Before the**
**National Telecommunications and Information Administration, U.S. Department of Commerce;**
**Rural Utilities Service, U.S. Department of Agriculture**
**Washington, D.C. 20230**

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| In the Matter of | ) | |
| | ) | |
| American Recovery and Reinvestment | ) | Docket No. 090309298–9299–01 |
| | ) | |
| Act of 2009 Broadband Initiatives | ) | |

# COMMENTS OF THE COMMONWEALTH OF PENNSYLVANIA

**Response to NTIA:**

**1. Purposes of the BTOP grant program**

**1aQ. Should a certain percentage of grant funds be apportioned to each category?**

**1a.** No. Demand for funds is expected to exceed supply but it is difficult to accurately predict the precise allocation of request by category. It is preferable not to be overly prescriptive. This will provide NTIA with much needed flexibility and discretion in terms of making awards.

**1bQ. Should applicants be encouraged to address more than one purpose?**

**1b.** Yes. Projects that deliver on several objectives at once will maximize NTIA's return on investment.

**1cQ. How should the BTOP leverage or respond to the other broadband-related portions of the Recovery Act, including the United States Department of Agriculture (USDA) grants and loans program as well as the portions of the recovery Act that address smart grids, health information technology, education, and transportation infrastructure?**

**1c.** Coordination across various broadband related portions of ARRA is essential in order to maximize the public investment. NTIA should encourage projects that are aimed at delivering complementary objectives to avoid funding parallel or competing projects. Project evaluation and scoring should take into account how NTIA funded projects would coordinate with or leverage other ARRA initiatives. Uniformity in definitions across ARRA program components is essential (eg. "speed", "broadband", "unserved", "underserved").

There should not be any barriers for the "mixed" funding of particular projects from both NTIA and USDA-RUS economic stimulus funding sources as long as the total amount of the "mixed" funding does not exceed 100% of the value of the project (where necessary, 100% of the project value should take into account the required state matching fund portion).

## 2. Role of the States:

**2aQ. How should the grant program consider State priorities in awarding grants?**

**2a.** States may be the only entity with broad interests; others may be looking at niche programs or potentially lucrative populations. States are important to balancing the interests and needs and they may be the only entity that has full knowledge of local conditions. States are uniquely positioned to assess how potential projects correlate and coordinate with local conditions (state, regional, local), state plan, mapping conditions, project partners, outreach and aggregation efforts, state or local resources, other potential ARRA initiatives, to name but a few.

NTIA should require states to develop a broadband plan as part of their grant submission. Projects would then have to be in furtherance of the state plan. A statewide plan would ensure thoughtful, comprehensive strategies to address all unserved and underserved areas in the state. Requiring a state broadband planwould follow the example set already in the public safety arena where states first developed their SCIP ( State Communications Interoperability Plan) and then the PSIC ( Public Safety Interoperability Communications) grants were scored based on how they adhered to the SCIP.

**2bQ. What is the appropriate role for States in selecting projects for funding?**

**2b.** The state is in the best position to view the broadband picture from a neutral perspective and thus the best entity to objectively evaluate projects based on the grant criteria. The final decision on any project should reside with the state. If NTIA/RUS desires that States assist in ranking and prioritizing projects based on NTIA/RUS criteria, Pennsylvania is prepared to assist in that capacity.

**2cQ. How should NTIA resolve differences among groups or constituencies within a State in establishing priorities for funding?**

**2c.** These types of issues would not surface if NTIA mandated that states are the final arbiter of any disputes. With the possibility of literally thousands of entities applying for funding, NTIA must delegate disputes to the appropriate states. Any other course is unworkable.

**2dQ. How should NTIA ensure that projects proposed by States are well-executed and produce worthwhile and measurable results?**

**2d.** Thorough reporting and accountability is essential. Similarly requiring states to report on consistent performance metrics would advance execution as well as measure results.

## 3. Eligible Grant Recipients

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

Applicable criteria might include:

a) Whether such entity under Section 6001(e)(1)(c) has previously received federal funding;
b) Whether such entity under Section 6001(e)(1)(c) is involving other organizations in the project, including State participation;
c) The extent to which private investment is brought to bear as part of the project;
d) Prior documented private network investment in broadband facilities, especially in rural areas.
e) If the applicant is a broadband service provider, the extent to which funded infrastructure will be shared or made available to other providers or other users under applicable federal and state law.

## 4. Establishing Selection Criteria for Grant Awards

**4aQ. What factors should NTIA consider in establishing selection criteria for grant awards? How can NTIA determine that a Federal funding need exists and that private investment is not displaced? How should the long-term feasibility of the investment be judged?**

**4a.** The Commonwealth of Pennsylvania has developed certain guiding principles that could evolve into NTIA selection criteria. These are:

1. Providing broadband service to those who are not served in Pennsylvania ("unserved"), including the identification of areas with preexisting and documented aggregate demand for broadband services, e.g., Pennsylvania's Chapter 30 law bona fide retail request program.
2. Providing enhanced broadband connectivity to those currently underserved ("underserved").
3. Providing affordable, adequate, and reliable (voice, data, video and wireless) services to citizens ("affordability").
4. Remaining technology neutral in mode of delivery to end users ("agnostic provisioning").
5. To the extent possible, encourage broadband connectivity via multiple providers ("competition and choice").
6. Encouraging local and public-private partnerships to maximize impact of investment and to extend reach and breadth of deployment effort ("fostering partnerships").
7. Providing funds to broadband recipients as opposed to providers (preference for "community champions" or "local project lead"), consistent with applicable federal and state law.
8. Using Commonwealth resources where possible to assist primary goals 1, 2 and 3 ("resource allocation").
9. Supporting secondary, expansive, substantive (public safety, education, health, energy, commercial grade broadband) goals where possible ("vertical integration").
10. Identifying policy and programmatic changes in state programs that could help accelerate deployment or encourage outside private or federal investment ("policy & programmatic considerations").

Additional specific selection criteria for NTIA to consider include the following:

- Prioritization of unserved and underserved regions, including areas with pre-existing and documented aggregate demand for broadband services.
- Documented need by virtue of mapping.
- State certification or state endorsement – consistency with state plan.
- Applicant's ability to perform.
- Sustainability and affordability.
- Market and community support.
- Identification of anchor tenants and public-private partnerships.
- The existence of a business plan to demonstrate sustainability.
- Scalability of network.
- Leverage of outside resources.
- Achievement of multiple objectives: connectivity, economic development, public safety, distance learning, delivery of health care, etc.
- State funds, including state utility ratepayer revenue sources, that are already dedicated to the deployment and promotion of broadband facilities and services pursuant to state-specific initiatives.

Perhaps projects with certain performance metrics could be eligible for future funds. And long-term feasibility of the investment might require a business case that demonstrates 5 years of sustainability, for instance.

**4bQ. What should the weighting of these criteria be in determining consideration for grant and loan awards?**

**4b.** Section 6001(h)(2) provides NTIA with the best guidance in its review of applications and in funding determinations. To paraphrase, it requires NTIA to consider whether an application will, if approved: increase the affordability of, subscribership to, and greatest broadband speed to the greatest population of users in the area; enhance service for health care delivery, education, or children; prevent unjust enrichment as a result of support for non-recurring costs.

Existing state initiatives and the committed state monetary resources for the ubiquitous deployment and promotion of broadband facilities and services should receive the appropriate degree of consideration in relevant state applications for the use of federal NTIA grants and loans.

**4cQ. How should the BTOP prioritize proposals that serve underserved or unserved areas? Should the BTOP consider USDA broadband grant awards and loans in establishing these priorities?**

**4c.** A primary objective of BTOP is to deploy broadband infrastructure as expeditiously as possible. As such, "shovel ready" projects should be afforded top priority. But these priority projects should also be sustainable with demonstrated near-term and longer-term demand ("pent-up demand"). Many attempts to solve the rural broadband dilemma have failed because they do not address the fundamental reality of higher costs of broadband facilities deployment in rural areas due to distance and lack of population density.

**4dQ. Should priority be given to proposals that leverage other Recovery Act projects?**

**4d.** Yes. This is a good way to ensure the efficient use of federal funding. There is much advantage to be gained in fostering projects that overlap in the areas of infrastructure, health care, education, energy and job creation.

**4eQ. Should priority be given to proposals that address several purposes, serve several of the populations identified in the Recovery Act, or provide service to different types of areas?**

**4e.** NTIA should seek to achieve a balance involving all of these desired outcomes.

**4fQ. What factors should be given priority in determining whether proposals will encourage sustainable adoption of broadband service?**

**4f.** Sustainability is influenced by many factors such as pricing, business model, cost of transport, competition, aggregated demand, technology choices, and presence of anchor tenants. Part of the grant applications should be an explanation of how the project will achieve sustainability over the long term.

**4gQ. Should the fact that different technologies can provide different service characteristics, such as speed and use of dedicated or shared links, be considered given the statute's direction that, to the extent practicable, the purposes of the statute should be promoted in a technologically neutral fashion?**

**4g.** This program should not expand the digital divide by providing funding to sub-standard delivery models. At the same time there are areas to which optimal delivery may be impossible due to location, terrain, cost, etc. The primary focus should be on sustainable delivery without undue focus on delivery model. In 2004, Pennsylvania created two programs that should be explored as a model for delivery of effective public policy. The first is the Broadband Outreach and Aggregation Fund (BOAF), which finances efforts to organize buyers into purchasing consortia (among other things). The second is

Pennsylvania's E-Fund program, which helps pay for the nonrecurring costs to build new broadband networks for schools. The E-Fund program earmarks have been a major reason why Pennsylvania's schools now have near ubiquitous broadband coverage. Neither of these programs is wedded to a particular provider or mode of delivery. However, ARRA funding can quickly address identified and documented areas with preexisting aggregate demand for broadband services because of Pennsylvania's BFRR program.

**4hQ. What role, if any, should retail price play in the grant program?**

**4h.** While retail pricing is an important consideration, we should be wary about placing too heavy emphasis on pricing. Several reasons:

1. The primary goal is to encourage deployment to those areas that are not served adequately or at all. A goal of any broadband project needs to inject as much competition into the market as possible with a minimum of two suppliers in any given area. If this is achieved, market forces will eventually set the appropriate price point.
2. Undue emphasis on pricing, and the resulting implied downward pressure on pricing, could ultimately impact the sustainability of a BTOP project.
3. Establishment of retail pricing is a local consideration. Retail pricing will vary from state to state, and will vary across different markets within each state.
4. The cost of broadband facilities deployment and the resulting pricing of broadband services can also be influenced for certain provider categories by the availability of federal and state-specific universal telephone service funding mechanisms. The federal universal service fund (USF) that operates under the auspices of the regulatory oversight of the Federal Communications Commission (FCC) is such a funding source for broadband deployment by rural incumbent local exchange telephone companies.

**5. Grant Mechanics**

**5aQ. What mechanisms for distributing stimulus funds should be used by NTIA and USDA in addition to traditional grant and loan program?**

**5a.** Consider the allocation of funding for "planning grants". States are distributed along a broad continuum in terms of their respective readiness for project deployment. States that currently do not have a broadband plan in place or states that do not have any broadband mapping efforts could receive a planning grant. The availability of preexisting and documented aggregate demand for broadband services, e.g., Pennsylvania's Bona Fide Retail Request (BFRR) program, can also play a role for the issuance of "planning grants." Proper planning and diagnosis of the extent of the digital divide will allow states to more judiciously expend their deployment funding at a later phase. Thus, during the first application window, anticipated to occur this Spring, States that have already undertaken planning and broadband mapping efforts can submit applications for deployment projects, whereas other jurisdictions can receive planning grants and apply for project funding during second and third cycles of consideration.

It might be worthwhile for NTIA to explore pilots that explore the feasibility of alternative or emerging technologies with potential to large customer bases in rural and remotes areas. Broadband over power lines, for example, is one illustration of a delivery mode that can leverage utility investments previously made in rural areas.

**5bQ. How would these mechanisms address shortcomings, if any, in traditional grant or loan mechanisms in the context of the Recovery Act.**

**5b.** This would allow for all states to participate in first tranche of BTOP funding regardless of where individual states are in the "cycle of readiness."

## 6. Grants for Expanding Public Computer Center Capacity

**6aQ. What mechanisms for distributing stimulus funds should be used by NTIA and USDA in addition to traditional grant and loan programs?**

**6a.** The best method would be to establish formula grants made directly to the states based on established criteria, e.g. population, percentage of unserved or underserved population, etc. These types of grants can be distributed very quickly and should actually precede the actual build-out of a state's broadband infrastructure.

**6bQ. What additional institutions other than community colleges and public libraries should be considered as eligible recipients under this program?**

**6b.** Community outreach centers, Community Action organizations; Assisted living centers and retirement communities; and local governments should all be considered. Also any accredited college or higher educational institution willing to open its institution and administer grants in furtherance of this program

## 7. Grants for Innovative Programs to Encourage Sustainable Adoption of Broadband Services

**7aQ. What selection criteria should be applied to ensure the success of this program?**

**7a.** Priority to unserved and underserved communities; documented and pre-existing aggregate demand for broadband services which leads to adoption; and business model which leads to sustainability.

**7bQ. What measures should be used to determine whether such innovative programs have succeeded in creating sustainable adoption of broadband services?**

**7b.** The program should include quantitative and qualitative measures such as: level of adoption, emergence of public/private partnerships, ease of replication, sustainability and examples of implementation of innovative uses. A good success measure would be to determine if the program achieves rates of adoption in unserved and underserved areas mirrors the adoption rates in more populous areas of the state.

## 8. Broadband Mapping

**8aQ. What uses should such a map be capable of serving?**

**8a.** First and foremost, it should serve as an aid to visually show the existence (or not) of broadband availability by depicting coverage as reported by various providers. It should be a tool to assist with the diagnosis of the existence and location of the digital divide. Secondarily, it could show broadband availability in relation to other attributes such as schools, hospitals, business parks, public safety and local government facilities, and so forth. Finally, it can and will play a regulatory monitoring and enforcement role in regard to the broadband facilities and services deployment commitments by regulated telecommunications carriers and other entities, and can be utilized in ascertaining the level of competition in distinct geographic regions between facilities-based broadband services providers.

Pennsylvania has launched its public mapping inventory which can be accessed at www.broadbandinpa.com The Commonwealth developed this tool as a result of the passage of state legislation in late 2004 which required a state agency, Department of Community & Economic

Development (DCED), to collect, compile and publish a web-based mapping inventory. All providers of broadband, regardless of technology used, are statutorily required to cooperate with the DCED agency. The Commonwealth has consequently deployed a public mapping tool which depicts reports broadband coverage statewide, at the county level, and at the zip code level. Some of the information was deemed by the providers to be proprietary in nature, so numerous data points have been collected pursuant to the terms of a Non Disclosure Agreement. Information displayed on the public portal is derived from the following:

- Cable – reported coverage by cable carriers at the federal census block level.
- Telephone (Local Exchange Carriers) – Digital subscriber line (xDSL) service availability coverage depicted by crop circle cut approximately 16,000 feet from deployed central office and remote terminal facilities.
- Wireless – wireless coverage depicted from crop circle cut from azimuth, beam radius, and reasonable projection of distance.

**8bQ. What specific information should the broadband map contain, and should the map provide different types of information to different users (e.g., consumers versus governmental entities)?**

**8b.** Public Information: The broadest objective, the map should report coverage by all broadband providers at a more granular level that incorporates the appropriate geographical coding (geocoding). Much narrower components could be mapped such as level of services (speed; residential vs commercial), take rates, names of providers with contact information, newly deployed locations, funded ARRA projects within each state, etc.

Private Information (governmental entities): Pennsylvania has entered into Non Disclosure Agreements (NDAs) with selected carriers. This has enabled the collection of certain data points which cannot be publicly displayed (tower locations, head ends, central offices and remote terminals). Some of these proprietary or non-public data points have served useful to state government, among other things, for public safety reasons and for economic development purposes (business location selection decisions).

**8cQ. At what level of geographic or other granularity should the broadband map provide information on broadband service?**

**8c.** Census block or nine number zip code with ability to zoom from broad view (statewide or county) to narrow view (street level display). There should be a clear depiction of the potential, available and subscribing broadband services customers within the adopted geographic disaggregation unit.

**8dQ. What other factors should NTIA take into consideration in fulfilling the requirements of the Broadband Data Improvement Act, Pub. L. No. 110-385 (2008)?**

**8d.** NTIA should specify the granularity of requested information and the frequency at which this information must be updated and to whom the information must be provided.

NTIA should give consideration to mapping efforts that are completed or underway at the state level. There is a risk of incongruity of mapping data across states. Funding should be made available to states that have not commenced mapping activities. Likewise, funding should be made available to states that have commenced or completed mapping efforts in order to ensure consistency in reporting.

FCC has custody of Form 477 data points (wireless coverage) which is not currently in the public domain. This data should immediately be made available to states so that they can undertake or improve their mapping efforts.

Congress (or FCC) should promulgate a law or regulation that compels all carriers to contribute this data, and the mandate should contain specific timelines and enforcement mechanisms (penalties) for non-compliance.
There is also a long-term concern. The broadband mapping effort will create a tool which will become a "living instrument". It will remain valuable only to the extent that resources are made available to States to keep it current after the expenditure of ARRA funds.

**8eQ. Are there State or other mapping programs that provide models for the statewide inventory grants?**

**8e.** Yes. Pennsylvania, California, North Carolina, Kentucky, among others.

**8fQ. Specifically what information should states collect as conditions of receiving statewide inventory grants?**

**8f.** Provided that resources are made available to States, the information could be comprised of data points representing current broadband coverage pertaining to all forms of broadband technology, speeds, tower locations, fiber routes, usage, subscribership, new locations as they are deployed, information indicating outreach organizations within specific States.

**8gQ. What technical specifications should be required of state grantees to ensure that statewide inventory maps can be efficiently rolled up into a searchable national broadband database to be made available on NTIA's website no later than February 2011?**

**8g.** Specific data intake forms and specific information formats must be specified in order to achieve consistency in collection and display (eg. GIS/ESRI/MapInfo compatible files: shp .tab. mif). This will bring more clarity and consistency to State data collection and mapping efforts such that the results can be easily transferred to the Federal agency.

**8hQ. Should other conditions attach to statewide inventory grants?**

**8h.** The federal government should specify in guidelines particular data that is required to be collected and mandate providers to cooperate thoroughly with State governments and other approved data collection entities.

**8iQ. What information, other than statewide inventory information, that should populate the comprehensive nationwide map?**

**8i.** Dependent on resources made available to states, information could potentially include: throughput and speed levels by provider, subscribership, and service pricing information on statewide broadband initiatives, job creation, usage, bandwidths, availability of Electronic Health Information, Electronic Medical Records, names of all broadband providers, programs awarded, type of funding and amount to project, project location.

**8jQ. The Recovery Act and the Broadband Data Improvement Act (BDIA) imposes duties on both NTIA and FCC concerning the collection of broadband data. Given the statutory requirements of the Recovery Act and the BDIA, how should NTIA and FCC best work together to meet these requirements?**

**8j.** The agencies should work cooperatively and collectively to impose requirements for data collection that are realistically attainable. The agencies need to accelerate the release and publication of data this is currently in the custody of the FCC (for example, Form 477 wireless data). To the extent possible, federal

agencies should coordinate with States to aggregate data and procure data. NTIA and FCC may consider the appropriate administrative delegation of federal authority to the States for the collection of relevant data under the appropriate confidentiality protections for commercially and security sensitive information.

**9. Financial Contributions by Grant Applicants:**

**9aQ. What factors should an applicant show to establish the "financial need" necessary to receive more than 80 percent of a project's cost in grant funds?**

**9a.** Certification that 20% matching capital resources have been sought and could not be obtained. Comparative analysis demonstrating that retail pricing would be substantially higher than other similar situations with increased federal allocation. Grants directly to government entities should automatically be excluded from the 20% match if the government applicant can certify that revenues are at least XX % lower than the year previous to the grant application.

**9bQ. What factors should the NTIA apply in deciding that a particular proposal should receive less than an 80 percent Federal Share?**

**9b.** Project lacks community support, lacks state endorsement, favors one provider, lowers anticipated outputs, there are concerns about the ability to achieve desired progress by end of fiscal year 2010.

**9cQ. What showing should be necessary to demonstrate that the proposal would not have been implemented without Federal assistance?**

**9c.** If the purpose of this program is to stimulate the economy, no such showing should be required from a government entity as long as the provisions for spending the grant funds are adhered to. Non government applicants should be required to document any and all capital projects planned for their last three fiscal years. This documentation should reveal whether the project was previously funded or not.

**10. Timely Completion of Proposals:**

**10aQ. What is the most efficient, effective, and fair way to carry out the requirement that the BTOP be established expeditiously and that awards be made before the end of fiscal year 2010?**

**10a.** Release NOFA and guidelines as quickly as possible, simple application forms, streamlined approval process, and development of a well-structured review process for applications.

**10bQ. What elements should be included in the application to ensure the projects can be completed within two (2) years (e.g., timelines, milestones, letters of agreement with partners)?**

**10b.** This could include: demonstration that concrete project steps have been undertaken or completed (eg. vendor solicitations, procurement), identification of provider of choice, identification of contractors and subcontractors, aggregation and identification of end users, specific timelines and milestones, partnership agreements, letters of support, "make-ready" steps (right of way, collocation, etc). Permitting the states to use existing vendor contracts to procure equipment and services as long as the extension or use of such contracts does not violate existing state policies. Require non-government recipients to complete the planned broadband deployment within two (2) years of approval for all preexisting and documented aggregate demand for broadband services, and any rural service area that would otherwise be availed of broadband as quickly.

**11. Reporting and Deobligation**

**11aQ. How should NTIA define wasteful or fraudulent spending for purposes of the grant program?**

**11a.** Ancillary costs that are not essential to project, duplicative costs, charges that cannot be documented. Limit non-direct administrative costs for relevant projects to a predetermined level.

**11bQ. How should NTIA determine that performance is at an "insufficient level?"**

**11b.** Periodic reporting, monitoring and benchmarking during the life of the project contract should reveal inadequacies. If concerns are expressed, NTIA should provide awardees with particulars of what it deems to inadequate performance or project delivery at an "insufficient level" and give grantee and opportunity to remedy situation.

**11cQ. If such spending is detected, what actions should NTIA take to ensure effective use of investments made and remaining funding?**

**11c.** Request intervention and inspection by Inspector General, meet with government officials to establish proper needs to put project back in line. Require the recipient to compensate NTIA – USDA/RUS for any imprudent use of the received federal funding support.

**12. Coordination with USDA Broadband Grant Program:**

**12aQ. What specific programmatic elements should both agencies adopt to ensure that grant funds are utilized in the most effective and efficient manner?**

**12a.** Consistency in the adopted definitions for related programs and in reporting both in terms of format and frequency.

**12bQ. In cases where proposals encompass both rural and non-rural areas, what programmatic elements should the agencies establish to ensure that worthy projects are funded by one or both programs in the most cost effective manner without unjustly enriching the applicant(s)?**

**12b.** Accurate and thorough application approval, ensure the consultation of the appropriate State agencies, direct the proposed projects to most appropriate agency for grant and/or loan, and providing the necessary accounting and audit assurances that the cost of the relevant project does not exceed the full value of the "funding mix" from NTIA, USDA-RUS, state and other funding sources if applicable, e.g., to the extent that the particular project qualifies and receives funding through mechanisms such as the federal universal service fund, such funding should be accounted in the total source "funding mix."

**13. Definitions**

**13aQ. For purposes of the BTOP, how should NTIA, in consultation with the FCC, define the terms "unserved area" and "underserved area?"**

**13a.** "Unserved" should be defined as no broadband service, or only dial up service and/or satellite communications availability.

"Underserved" should be defined as only available service is below 1.5 megabits per second (Mbps) downstream and 128 kilobits per second (kbps) upstream, and/or only one broadband provider in the

specific area. Underserved should also be defined as geographic areas identified by the state where broadband could act to stimulate relocation and job creation.

"Unserved" and "underserved" could also be defined in the non-geographic sense and interpreted to extend to unserved and underserved "populations" (populations or groups as opposed to geographic areas or physical locations). This could translate into better opportunities to extend funds for the *Public Computing Center Capacity* or for *Innovative Programs to Encourage Sustainable Adoptions* portions of BTOP.

**13bQ. How should the BTOP define "broadband service?"**

**13b.** "Broadband service" should be defined as bandwidth equal to or greater than 1.544 Mbps in the downstream direction and equal to or greater than 128 kbps in the upstream direction.

**13b1Q. Should the BTOP establish threshold transmission speeds for purposes of grant awards? Should thresholds be rigid or flexible?**

**13b1.** What prevails is the requirement to have a basic minimally agreed upon speed and scalability. Given the desire to quickly and nimbly deploy BTOP resources, it would be irresponsible to rigidly set goals or to impose limits or ceilings on speeds, with the exception of the establishment of a minimum downstream speed (1.54Mbps) and upstream speeds (128 Kbps), which speeds are also contained in Pennsylvania's broadband deployment law that applies to incumbent local exchange telephone companies.

This gives NTIA flexibility to achieve the fundamental requirement of deploying basic and much-needed broadband infrastructure to those who currently do not have such, while giving itself the flexibility at the same time to deploy resources for next-generation network projects if it feels that it is opportune to do so in select cases. In other words, this gives NTIA the opportunity to deploy resources along the continuum of possible needs and uses.

The deliberate decision not to establish a ceiling for broadband speeds allows for scalability and for the technological ability to achieve higher speeds which under any realistic forecast will grow by a significant multiple over the next decade.

**13b2Q. Should the BTOP establish different threshold speeds for different technology platforms?**

**13bQ.** No, as long as minimum speeds are attained.

**13b3Q. What should any such threshold speed(s) be, and how should they be measured and evaluated (e.g., advertised speed, average speed, typical speed, maximum speed)?**

**13b3.** Minimum broadband speeds of 1.544 Mbps downstream and 128 kbps upstream for **[?]** landline and wireless telecommunications services, 20 Mhz continuous throughput or 5 Mhz download for cable and fixed wireless. All speeds should be measurable at optimum usage/full network traffic

**13b4Q. Should the threshold speeds be symmetrical or asymmetrical?**

**13b4.** Asymmetrical, since this is the universal method of service provision

**13b5Q. How should the BTOP consider the impacts of the use of shared facilities by service providers and of network congestion?**

**13b5.** Shared facilities will provide for additional providers as well as services, reduced costs for providers, maximize the use of existing networks, and translate into reduced project costs. Under applicable federal and state law, communication network operators are afforded the opportunity to engage in competitively neutral and reasonable network management practices assuring operational reliability and the avoidance of congestion issues. The same legal parameters can and do govern the interconnection of competing networks for the exchange of traffic while congestion issues can be managed and avoided.

**13cQ. How should the BTOP define the nondiscrimination and network interconnection obligations that will be contractual conditions of grants awarded under Section 6001?**

**13c.** Keep the definition simple but thorough, and maintain a competitive program. Common carrier nondiscrimination and interconnection that are consistent with federal and state laws provide for useful utilization of existing network architecture and allow for faster deployments and enhancements. This also provides the opportunity to get the most out of existing infrastructure and additional revenues to create more competitive resources.

**13c1Q. In defining nondiscrimination obligations, what elements of network management techniques to be used by grantees, if any, should be described and permitted as a condition of any grant?**

**13c1.** Maintain open networking and prohibit any technique that will limit quality of services and provide any inequality of uses of networks while maintaining appropriate levels of reliability and security for interconnected networks consistent with applicable federal and state laws.

**13c2Q. Should the network interconnection obligation be based on existing statutory schemes? If not, what should the interconnection obligation be?**

**13c2.** Yes, existing statutory interconnection obligations are mostly adequate and satisfactory, but do not eliminate the possibility of abuse. The FCC may have to revisit certain of its administrative rulings regarding interconnection obligations of common carriers that utilize broadband facilities and services.

**13c3Q. Should there be different nondiscrimination and network interconnection standards for different technology platforms?**

**13c3.** There must be a unified and technology-agnostic base that governs access and interconnection between communications networks and carriers. This area is increasingly affected by past FCC decisions that relate to the treatment of services that utilize the Internet Protocol (IP), and the need for the promulgation of final rules by the FCC for the regulatory treatment of IP-enabled services and intercarrier compensation for the exchange of communications traffic of various types between networks and carriers.

**13c4Q. Should failure to abide by whatever obligations are established result in de-obligation of fund awards?**

**13c4.** Yes if the circumstances are warranted. It is ultimately the responsibility of NTIA and the Inspector General to ensure proper use of funds and compliance with program requirements.

**13c5Q. In the case of infrastructure paid for in whole or part by grant funds, should the obligations extend beyond the life of the grant and attach for the useable life of the infrastructure?**

**13c5.** Obligations should extend beyond the life of the grant. But for BTOP funding, the project would not have been deployed so it is a reasonable condition to attach.

**13dQ. Are there other terms in this section of the Recovery Act, such as "community anchor institutions," that NTIA should define to ensure the success of the grant program? If so, what are those terms and how should those terms be defined, given the stated purposes of the Recovery Act?**

**13d.** Clear definition of "broadband", "unserved", "underserved", "state consultation", " community anchor institutions"

**13eQ. What role, if any, should retail price play in these definitions?**

**13e.** What is important is that the service is "affordable". It should not be defined by legislation or regulation. Competition and market forces will dictate what retail price becomes.

## 14. Measuring the success of BTOP

**14aQ. What measurements can be used to determine whether an individual proposal has successfully complied with the statutory obligations and project timelines?**

**14a.** Compliance with guidelines. Specific outputs such as miles of new fiber, new tower locations, incorporation of legacy assets into the broadband plan, private investment level, new on-line customers, new providers now delivering broadband services to previously unserved or underserved regions.

**14bQ. Should applicants be required to report on a set of common data elements so that the relative success of individual proposals may be measured? If so, what should those elements be?**

**14b.** Yes, for tracking purposes and for consistency in reporting. Elements could include residential and business impacts, take rates, speeds of broadband facilities and services deployed, job creation/retention, method of deployment, type of architecture, pricing of services.

## 15. Other Comments

**15Q. Please provide comment on any other issues that NTIA should consider in creating BTOP within the confines of the statutory structure established by the Recovery Act.**

**15a.** The NTIA must establish broad interpretations for in-kind matches so that applicants for funds can use a wide variety of match criteria. It is reasonable to assume that capital funds for grantees will be scarce so either grant match waivers must be widely considered or innovative matches must be permitted.

Additionally, NTIA should work with the RUS to ensure that grant applications can address the achievable goals in both grant programs without the requirement of multiple grant applications.

**Response to RUS:**

**1Q. What are the most effective ways RUS could offer broadband funds to ensure that rural residents that lack access to broadband will receive it?**

Distribute most of the RUS funding in grants as opposed to loans or loan guarantees.
Better utilize rural development authorities, forbid award of RUS grants to broadband providers and provide that RUS grants can only go to state or other non-profit project partners.

**1aQ. For a number of years, RUS has struggled to find an effective way to use the Agency's current broadband loan program to provide broadband access to rural residents that lack such access. RUS believes that the authority to provide grants as well as loans will give it the tools necessary to achieve that goal. RUS is looking for suggestions as to the best ways to bundle loan and grant funding options to ensure such access is provided in the projects funded under the Recovery Act to areas that could not traditionally afford the investment.**

**1a.** Grants should be awarded to non-providers. Providers would qualify for loans only. The marriage of these two requirements should solidify public-private partnerships and lead to enhanced project success. In order to receive a grant, any current loan must be settled prior to distribution of grant funds.

**1bQ. For a number of years, RUS has struggled to find an effective way to use the Agency's current broadband loan program to provide broadband access to rural residents that lack such access. RUS believes that the authority to provide grants as well as loans will give it the tools necessary to achieve that goal. RUS is looking for suggestions as to the best ways to promote leveraging of Recovery Act funding with private investment that ensures project viability and future sustainability.**

**1b.** Provide adequate funding to private investment sector to ensure equal distribution of broadband activity. RUS should not exclude from its list of eligible loan recipients providers who customarily are not eligible applicants for traditional RUS loans. It should be noted that a number of these providers, e.g., Bell operating companies (BOCs) provide services to large numbers of rural communities while at the same time they cannot access RUS loan funds.

**1cQ. For a number of years, RUS has struggled to find an effective way to use the Agency's current broadband loan program to provide broadband access to rural residents that lack such access. RUS believes that the authority to provide grants as well as loans will give it the tools necessary to achieve that goal. RUS is looking for suggestions as to the best ways to ensure that Recovery Funding is targeted to unserved areas that stand to benefit the most from this funding opportunity.**

**1c.** Afford priority to "unserved" communities for receipt of RUS grants. Consider allowing RUS grants as a match to state programs.

**2. In what ways can RUS and NTIA best align their Recovery Act broadband activities to make the most efficient and effective use of the Recovery Act broadband funds?**

**2.** There should be efficient review of applications to ensure the best use of the programs. In part, utilizing the States and consult with health care, education and economic organizations. There should also be coordination, to the extent necessary, with funding sources that are available to certain providers of broadband services in rural areas. For example, many independent (non-BOC) rural incumbent local telephone companies are eligible for the receipt of federal USF support that is used for the deployment of broadband facilities and services.

**2aQ. In the Recovery Act, Congress provided funding and authorities to both RUS and the NTIA to expand the development of broadband throughout the country. Taking into account the authorities and limitations provided in the Recovery Act, RUS is looking for suggestions as to how both agencies can conduct their Recovery Act broadband activities so as to foster effective broadband development. For instance: RUS is charged with ensuring that 75 percent of the area is rural and without sufficient access needed for economic development. How should this definition be reconciled with the NTIA definitions of "unserved" and "underserved?"**

**2a.** RUS and NTIA definitions should be the identical. "Unserved" should be defined as no broadband service, or only dial up service and/or satellite availability. "Underserved" should be defined as only available service is below 1.5 Mbps downstream and 128 kbps upstream, and/or only one broadband provider in the specific area

**2bQ. In the Recovery Act, Congress provided funding and authorities to both RUS and the NTIA to expand the development of broadband throughout the country. Taking into account the authorities and limitations provided in the Recovery Act, RUS is looking for suggestions as to how both agencies can conduct their Recovery Act broadband activities so as to foster effective broadband development. For instance: How should the agencies structure their eligibility requirements and other programmatic elements to ensure that applicants that desire to seek funding from both agencies (i) do not receive duplicate resources and (ii) are not hampered in their ability to apply for funds from both agencies?**

**2b.** Scoring by NTIA and RUS should both consider an applicants plans to integrate funds from both sources into a broadband plan that meets the objectives of both entities under ARRA.

**3Q. How should RUS evaluate whether a particular level of broadband access and service is needed to facilitate economic development?**

3. Consultation with state entities who are primarily engaged in economic development efforts.

**3aQ. Seventy-five percent of an area to be funded under the Recovery Act must be in an area that USDA determines lacks sufficient "high speed broadband service to facilitate rural economic development." RUS is seeking suggestions as to the factors it should use to make such determinations. How should RUS define "rural economic development?" What factors should be considered, in terms of job growth, sustainability, and other economic and socio-economic benefits?**

**3a.** "Rural economic development" includes agriculture, farming and agricultural processing industries, tourism and hospitality industry, e-commerce, manufacturing,, small and home-based businesses, and educational and health care facilities and services. RUS can and should examine whether the availability of broadband facilities and services facilitate job retention and attraction and the welfare of rural communities. For example, do broadband facilities and services facilitate the exchange of engineering schematics and documentation in response to a governmental or private industry contract bid for a small scale manufacturing facility? Similarly, can a rural health care facility exchange medical diagnostic data with an urban hospital or major medical educational facility?

**3bQ. What speeds are needed to facilitate "economic development?" What does "high speed broadband service" mean?**

3b. An important driver of economic development in rural America is the presence and many small business and home business enterprises. "High Speed Broadband Service" should be defined as a retail telecommunications service that, regardless of transmission medium or technology, is capable of

supporting a minimum speed of 1.54Mbps in at least one direction at the network demarcation point of the customer's premises.

**3cQ. What factors should be considered, when creating economic development incentives, in constructing facilities in areas outside the seventy-five percent area that is rural (i.e., within an area that is less than 25 percent rural)?**

**3c.** Labor and unemployment rates that are below national or statewide averages. States should provide input whether RUS investment outside the 75% area would serve as a catalyst to particular areas or particular industry clusters.

**4Q. In further evaluating projects, RUS must consider the priorities listed below*. What value should be assigned to those factors in selecting applications? What additional priorities should be considered by RUS?**

4. While the list priorities are important, there are additional criteria that should be considered by RUS. Additional specific selection criteria for RUS to consider include the following:

- Documented need by virtue of mapping
- State certification or state endorsement – consistency with state plan
- Applicant's ability to perform
- Sustainability and affordability
- Market and community support
- Identification of anchor tenants and public-private partnerships
- The existence of a business plan to demonstrate sustainability
- Scalability of network
- Leverage of outside resources
- Achievement of multiple objectives: connectivity, economic development, public safety, distance learning, delivery of health care, etc

* Priorities have been assigned to projects that will: (1) Give end-users a choice of Internet service providers, (2) serve the highest proportion of rural residents that lack access to broadband service, (3) be projects of current and former RUS borrowers, and (4) be fully funded and ready to start once they receive funding under the Recovery Act.

**5Q. What benchmarks should RUS use to determine the success of its Recovery Act broadband activities?**

5. By its own admission, RUS acknowledges that it has struggled to find an effective way to use the Agency's current broadband loan program to provide broadband access to rural residents that lack such access. One benchmark would be the performance of a comparative analysis of funding under previous RUS mechanism versus ARRA deployment. This will assist RUS in determining whether provider interest has increasing, whether more rural communities have been served, whether end-user growth has increased as a result of RUS investment.

Respectfully submitted,

Naomi Wyatt

Naomi Wyatt, Secretary of Administration
Commonwealth of Pennsylvania

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