

*Rural and Tribal Systems Development (RTSD)
5650 W. Quincy Avenue, #5
Denver, CO 80235*

DEPARTMENT OF COMMERCE: NTIA

DEPARTMENT OF AGRICULTURE: Rural Utilities Service

Docket No. 090309298-9299-01

Notice: American Recovery and Reinvestment Act of 2009 Broadband Initiatives

Action: Joint request for information and notice of public meetings.

SUBJECT: Response to RFI

We are pleased to provide our input to the NTIA and RUS concerning the American Recovery and Reinvestment Act of 2009 Broadband Initiatives and the Broadband Technology Opportunities Program (BTOP). Our input is provide at Enclosure 1.

We are a consortium of businesses, individuals, and Tribal entities focusing on bringing telecommunications services to previously underserved and unserved regions and to tribal entities. The Consortium consists of:

SDF Consortium LLC – a Project Management and Financial Management firm HQ in Denver CO. Experience or Management Team includes build out of NEXTEL, Sprint networks, and utility and government wireless networks across the USA. Significant experience in developing highly successful businesses for Native American organizations. Principals include:

- Danny Stroud, representing Veraz Ventures, Inc. Danny Stroud has 39 year of service to the country beginning as a graduate of West Point followed by service as an Army officer and then subsequently with a successful career in businessman in infrastructure-oriented companies. He is currently President of Veraz Ventures, Inc., a Denver-based capital advisory company.
 - Operations Management of major telecommunications networks in AT&T and Pacific Telesis.
 - Operations and Business management of wireless voice and data networks as the Network Director of the Bay Area Cellular Telephone Company (San Francisco).
 - SVP of Network Deployment and Operations for NEXTEL.
 - Founding member of Verio, an early business-oriented internet service provider, responsible for all global network operations. The company was eventually sold to NTT of Japan.
 - Multiple C-Level experiences in managed internet services company headquartered in New York City;
 - Consulting to fledgling technology companies in various Latin American countries develop modern data and voice wireless networks;

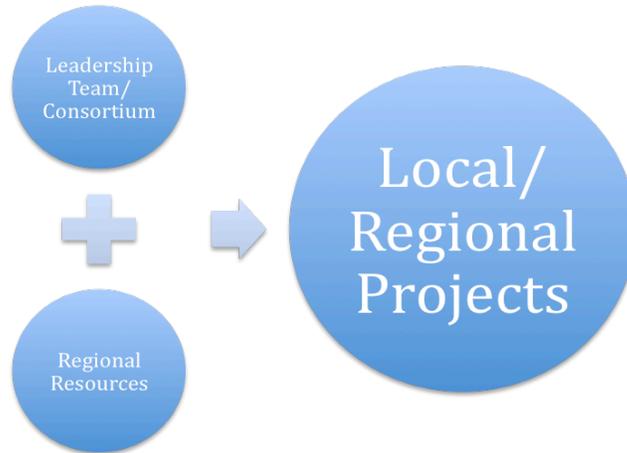
- Served as the Managing Director of a global software and services company providing services to many federal agencies as well as to aerospace companies such as Boeing, Airbus, and NASA.
- Most recently he helped grow Frontier Systems Integrators, a fast growing government contractor that provided post-9/11 integrated security services to highly sensitive federal facilities.
- Michael Dodson
 - Overall wireless network build plan program management and execution; all aspects of planning, design, staffing, financials, vendor selection, procurement, deployment, integration & testing, customer experience, and launch readiness.
 - Focused expertise in multi-tier backhaul architecture, planning, economic modeling, design, sourcing, deployment, and operations.
 - Product and technology development with a focus on commercializing products for scale and operability.
 - Performance management in terms of key service level performance metrics, exception analysis, resolution implementation, and ongoing service assurance.
- Peter Fiorey
 - 10 years of successful business development for Native American firms in the SBA 8a program
 - 30 years of successful telecommunications planning, design, implementation and operations.

Brainstorm – a telecommunications and internet service provider HQ in Durango, CO. Brainstorm is a leader in existing and developing technologies and has become an expert at providing custom communication solutions that others cannot provide. A facilities based CLEC with central office build outs in Durango, Grand Junction, Bayfield and Denver, Colorado as well as Farmington and Albuquerque New Mexico. Offer the largest supply of tier 1 provider Internet with redundant connections that put forward the most reliable service available in the region. We are experts in wired, fiber and wireless technologies in both licensed and unlicensed frequencies. We are the provider of choice by many municipalities, hospitals and multi national corporations in our service area.

Oweesta - Formed in 1982, Oweesta organized the first micro-lending company on Native Land (the Lakota Fund) which was very successful on what is arguably the most poverty-stricken location in the US. With a strategy of “Building Native Assets and Building Native Communities,” Oweesta has worked hard in providing financial education to individuals and tribal governments throughout the US. Today, there are approximately 75 Native-owned Community Development Financial Institutions (certified by the US Treasury) in the US that provide micro-lending and help Natives.

Working tirelessly in Indian country for 26 years, Oweesta has brought expertise, funding, education, and national attention to the challenges of bringing capital and businesses to Indian land.

The two driving forces are the Deployment/Finance Consortium (consisting of SDF Consortium and the key individuals identified below) and the Local/Regional Operating Entities (Brainstorm) come together to execute on defined Rural Telecom/Broadband Projects. Oweesta facilitates identifying the “high impact” opportunities through their association with tribal leadership councils.



Individuals:

- Gary Millhollon - Senior Vice President for BOK Financial, a \$22 billion bank-holding company with banks in MO, KS, OK, TX, NM, CO and Az. Formerly National Director of the Native American Lending Group for Compass Bank. He has been one of the largest producers of BIA loans throughout the US the past 20 years. He is the only lender to have closed an energy production loan transaction guaranteed by the BIA.has been in the commercial lending profession for more than 32 years and lending in Indian country for 20 years. Millhollon serves on the advisory board of Wall Street Without Walls, a national, non-profit agency based in NY. WSWW brings economic projects to impoverished communities utilizing the capital markets. The projects create jobs, provide housing and basic infrastructure to these communities. WSWW partners and investors include the Federal Reserve Bank, Fannie Mae Foundation, and the Kellogg Foundation. More than \$200 million of projects have been brought to impoverished communities

- Alan Young Chief Information Officer for the Southern Ute Indian Tribe Growth Fund Shared Services. 26 years of combined experience in accounting/finance and information technology with high tech, retail, hotel, casino, oil and gas, and supply chain companies. Main objectives are to consolidate IT for the Tribe and build a profitable shared services organization. Alan also serves as a technical advisor for GF Private Equity which manages over \$300 million in portfolio assets. Graduate of the University of North Texas. He has a BBA in Accounting and Information Systems.

- Alan Simon Co-founder of Simon Semenoff, a boutique legal and strategic advisory firm, specializing in energy, telecommunications and commercial property development. Extensive experience organizing private industry - tribal alliances involving economic development, infrastructure and technology projects in Indian Country. Alan has worked on telecommunications, energy and health projects with numerous Indian Tribes, First Nations Bands and tribal associations located in Colorado, New Mexico, Utah, Arizona, Nevada, California, Texas, Oklahoma, Idaho, Oregon, Washington, Montana, Wyoming, North Dakota, South Dakota, Florida, New York, British Columbia and Alberta, Canada.

Our Team (which we call the Rural and Tribal Systems Development (RTSD) Group) believes that the BTOP is best applied to rural and tribal populations that have been, to date, unserved or underserved by telecommunications and internet services. Our vision is to develop one or more projects that provide service at levels previously unavailable and to use that service to provide applications of critical import for medicine (ambulance telemetry), public safety (improved police and fire wireless communications and public alert systems), education (library access over wireless) and government access.

We believe that the BTOP grant process will allow us to bring wireless telecommunications and applications to underserved regions by maximizing currently and quickly implemented technologies. This implementation will be the seed and critical mass for the gradual and locally supported growth of network and service expansion, and enhancement of services through increased bandwidth and service. We strongly believe that without the BTOP, few of the initiatives we are planning will ever be fully funded or fully implemented. BTOP offers the “difference” and opportunity to provide service to populations and constituencies that are, and would continue to remain, on the poor side of the digital divide.

In this RFI response, we respectfully offer insights and suggestions to the NTIA and RUS that we feel will provide for a strong stimulus and critical mass for broadband projects of significance, and can provide a repeatable format for other projects throughout the rural USA and in underserved tribal areas throughout North America.

In summary:

- we have an experienced and proven planning, execution and deployment team.
- we have “shovel ready” projects that have been planned and are ready to deploy for want of capital
- our projects will stimulate job creation and economic development in the specifically identified regions
- we have strong tribal support from OWEESTA and others
- via direct coordination with local entities, we have strong rural community support
- we have obtained bank commitment for up to 20% of the projects costs as debt secured by the assets of the project

- through our regional operating company affiliation, we have access to modern and robust infrastructure that will be upgraded by this project
- distance education and telemedicine are built into the plan from day one.

Points of Contact:

- Danny Stroud at 303-973-9375 (stroud@verazventures.com)
- Gary Millhollon at 505-222-8474 (GMillhollon@bankofalbuquerque.com)
- Russ Elliott at 970-385-9680 (russ@brainstorminternet.net)

Respectfully submitted:

A handwritten signature in black ink that reads "Danny Stroud". The signature is written in a cursive style with a large, stylized initial "D".

Danny Stroud
SDF Consortium, LLC
President Veraz Ventures, Inc.
9 April 09

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ENCLOSURE 1 – BTOP RFI Input

DEPARTMENT OF COMMERCE: NTIA

DEPARTMENT OF AGRICULTURE: Rural Utilities Service

Docket No. 090309298-9299-01

Notice: American Recovery and Reinvestment Act of 2009 Broadband Initiatives

Action: Joint request for information and notice of public meetings.

Information is being sought on the following topics. Aspects of some of these topics will be discussed at the public meetings. Interested parties are invited to attend the meetings and to submit comments for the record on these topics to assist NTIA in establishing and administering BTOP and RUS in implementing its expanded authority. Comments addressing specific agency questions may be used by either agency in formulating its respective programs. Comments will be received through April 13, 2009.

The RFI solicits comments from interested parties on the following topics:

- the purposes of the BTOP program,
- the role of the States,
- eligible grant recipients,
- the establishment of selection criteria for grant awards,
- grant mechanics,
- grants for expanding public computer center capacity,
- grants for innovative programs to encourage sustainable adoption of broadband service,
- broadband mapping,
- financial contributions by grant applicants,
- timely completion of proposals,
- coordination between the BTOP and Department of Agriculture's RUS grant program,
- how terms set out in the relevant sections of the Recovery Act should be defined,
- how the success of the BTOP program should be measured,
- any other issues NTIA should consider in creating the BTOP,
- the most effective ways Department of Agriculture's RUS could offer broadband funds,
- how Department of Agriculture's RUS and NTIA can best align their Recovery Act activities
- how Department of Agriculture's RUS can evaluate whether a particular level of broadband access and service is needed to facilitate economic development,
- how Department of Agriculture's RUS should consider priorities set out in the Recovery Act in selecting applications, and
- what benchmarks should be used to determine the success of its Recovery Act broadband activities.

NTIA

1. The Purposes of the Grant Program: Section 6001 of the Recovery Act establishes five purposes for the BTOP grant program:

\2\ Section 6001(b) states that the purposes of the program are to--

(1) Provide access to broadband service to consumers residing in unserved areas of the United States;

(2) provide improved access to broadband service to consumers residing in underserved areas of the United States;

(3) provide broadband education, awareness, training, access, equipment, and support to--

(A) Schools, libraries, medical and healthcare providers, community colleges, and other institutions of higher education, and other community support organizations and entities to facilitate greater use of broadband service by or through these organizations;

(B) organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations; and

(C) job-creating strategic facilities located within a State- designated economic zone, Economic Development District designated by the Department of Commerce, Renewal Community or Empowerment Zone designated by the Department of Housing and Urban Development, or Enterprise Community designated by the Department of Agriculture;

(4) improve access to, and use, of broadband service by public safety agencies; and

(5) stimulate the demand for broadband, economic growth, and job creation.

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

Grant funds should be allocated IAW a published and coordinated graded scale that allows for maximum benefit or the “biggest bang for the buck”. The intent of the BTOP is to improve Broadband access to areas that are underserved today.

Projects that do that and provide jobs, add services to areas without services, improve the safety of the served public and provide seed for economic and other growth, should be considered for approval.

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

Applicants must be encouraged to provide maximum benefit for the utilization to taxpayer funds. Projects that cannot be accomplished without grant money should be given the highest of priorities. These projects must, however, be seed projects for long term stimulation and growth. Example – a project that provides 100MBS data service for \$X,000,000 may be compared with a similar cost project that provides 700KBS. At similar costs, the 100MBS service will provide services in a much smaller area than the 700 KBS services. The 100MBS project is most economical in a dense population area. The 700KBS project can be used economically in less populated areas. In dense population areas, there is a high probability that some level of broadband service already exists. In the less populated areas there is a lesser probability of existing broadband. The 700KBS service can provide service in a much wider area for the same cost, providing more access to more people.

c. 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?

Where possible, projects should be based upon standard protocols and implementations, with the ability to interconnect with other projects that make sense to interconnect. Smart grids do not necessarily provide new or enhanced “service” to underserved populations, and would not be applicable to bringing “broadband” to unserved areas.

2. The Role of the States: The Recovery Act states that NTIA may consult the States (including the District of Columbia, territories, and possessions) with respect to various aspects of the BTOP.³ The Recovery Act also requires that, to the extent practical, the BTOP award at least one grant to every State.⁴

³ *Section 6001(c) states that the Assistant Secretary may consult a State, the District of Columbia, or territory or possession of the United States with respect to--*

(1) The identification of areas described in subsection (b)(1) or (2) located in that State; and

(2) the allocation of grant funds within that State for projects in or affecting the State.

\4\ Section 6001(h)(1). NTIA to determine by rule whether it is in the public interest that entities other than those listed in Section 6001(e)(1)(A) and (B) should be eligible for grant awards. 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?

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

- Projects that receive funding should represent the optimal mix of capabilities and cost for the state or entity benefiting from the project
- The Agencies' application selection criteria should consider whether multiple purposes or product markets would be served by an application whether it is a State, Native American, or private entity applying.

States have priorities based upon their own constituencies and requirements. However, many rural or regional projects may cross state lines. In such cases, one cannot be certain that both states involved will have similar priorities and thus may not value the project in the same way. This is also true with projects that involved Tribal or Federal Lands.

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

Given the above, States should provide state-wide priorities to the Federal decision making authorities, and Tribal or Federal constituencies should also provide priorities and input to the Federal decision making authorities.

Projects that receive funding should represent the optimal mix of capabilities, cost, and price advantages – including affordability, subscribership, speed, mobility (or nomadicity), low service/subscription price, guaranteed initial pricing period, low equipment price, interoperable equipment, size of service footprint, and other societal goals (e.g., health care delivery, public safety, education, or Tribal development)

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

Priorities for funding must be based upon the BTOP definitions, time to completion, and consideration of maximum benefit (biggest bang for the buck).

It is important to realize that States have a set or worthy projects already prioritized and “ready to implement”. However, many of the most compelling BTOP projects will be newly proposed because of the funds made available by

the BTOP. Previous economics did not allow rural projects to be considered because the ROI was simply too poor. Given the new BTOP funds, these projects, once considered unworkable, now become quite interesting, and given the definitions and priorities in the BTOP, may become higher priority and more compelling than projects currently on State projects listings.

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

Telecommunications projects can be proposed with time tables and performance measures that are readily observed, reported and evaluated. The federal contracting system, while certainly not perfect, does have a history of generally achieving success in project management.

3. Eligible Grant Recipients: The Recovery Act establishes entities that are eligible for a grant under the program. \5\ The Recovery Act requires NTIA to determine by rule whether it is in the public interest that entities other than those listed in Section 6001(e)(1)(A) and (B) should be eligible for grant awards. 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?

\5\ *Section 6001(e) states that eligible applicants shall--*

(1)(A) Be a State or political subdivision thereof, the District of Columbia, a territory or possession of the United States, an Indian tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450(b)) or native Hawaiian organization;

(B) a nonprofit--
(i) foundation,
(ii) corporation,
(iii) institution, or
(iv) association; or

*(C) any other entity, including a broadband service or infrastructure provider, that the Assistant Secretary finds by rule to be in the public interest. In establishing such rule, the Assistant Secretary shall to the extent practicable promote the purposes of this section in a technologically neutral manner * * *.*

A project team applicable to BTOP may be a consortium of several constituencies including Tribal interests, infrastructure providers, application providers, and financial backing. The consortium project should be focused on the prudent and effective implementation of one or more projects that meet the requirements of the BTOP (maximum “bang for the bucks”, maximum impact to the most people,

greatest enhancement of services, and maximum impact for job creation). This consortium would be able to transcend political boundaries and provide BTOP projects to constituencies that might be disenfranchised by strict adherence to boundaries. Such a consortium is certainly “in the public interest” and should be considered eligible for Grant award.

4. Establishing Selection Criteria for Grant Awards: The Recovery Act establishes several considerations for awarding grants under the BTOP.\6\ In addition to these considerations, NTIA may consider other priorities in selecting competitive grants.

\6\ Section 6001(h) states that NTIA, in awarding grants, shall, to the extent practical--

(2) Consider whether an application to deploy infrastructure in an area--

a. Will, if approved, increase the affordability of, and subscribership to, service to the greatest population of users in the area;

b. will, if approved, provide the greatest broadband speed possible to the greatest population of users in the area;

c. will, if approved, enhance service for health care delivery, education, or children to the greatest population of users in the area; and

d. will, if approved, not result in unjust enrichment as a result of support for non-recurring costs through another Federal program for service in the area;

(3) consider whether the applicant is a socially and economically disadvantaged small business concern as defined under section 8(a) of the Small Business Act (15 U.S.C. 637).

a. 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?

If broadband projects were economically compelling, commercial carriers and other providers would have already designed and implemented these projects. There are reasons why the majority of wired and wireless broadband is first implemented in large population centers and not in rural areas. Economics of scale are the reason that even today, there are places in every state where only dial

up internet access is available, and where 3G wireless access is not possible. Private investment goes to the compelling ROI – that is almost always not in rural or Tribal areas.

A project team applicable to BTOP may be a consortium of several constituencies including State interests, Tribal interests, infrastructure providers, application providers, and financial backing. The investment initiatives provided by this consortium would be designed to meld private, tribal, and government investment into an equally compelling package. Government investment would most likely be the catalyst that allows the investment to reach critical economic mass – allowing the project to move forward.

Long term feasibility cannot be rated simply by ROI for rural or tribal projects. However, the projects must be sustainable. A mega- investment in 100MBS technology requires a large population to pay for the investment. For example, look at NYCWiN in New York City. The investment over 5 years is over \$500M. New York City has the tax base to pay for such an infrastructure. “Although allotted a \$500 million budget and implementation time frame of five years, it is believed that the project, which is being undertaken by homeland security giant Northrop Grumman, may eventually require up to 15 years and \$1.5 billion.” (<http://www.thecounterterroristmag.com/pdf/Issue3.NYCWIn.Morgenstern.Lo.pdf>)

This type of infrastructure would not be at all feasible for a rural area such as Western Virginia, middle Georgia, or 4 Corners in the Colorado – Arizona area. Nor would this type of infrastructure be feasible for implementation in rural areas in the time allowed by the BTOP. Instead of a WIMAX or other 5-10 MHz broadband infrastructure, it is much more prudent to use a 700KBs – 1000 KBs technology that would provide a lower bandwidth but extend service to a much larger area of operation and influence. This would extend the range of technology in a much more prudent and effective manner. Such projects can be linked with existing infrastructure and can provide the seed for growth to higher levels of service technologies as the economic impact of the stimulus and BTOP takes effect.

WIMAX certainly has its place, but the mix of technologies that best benefits that region and population served is the best solution.

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

Weighting should be involved in a formula that considers the following:

- would this project happen at all, or in the time period stated by the BTOP without government money and support?
- Is there a compelling need for the project in the area proposed?

- What is the economic stimulus of the project?
- What critical services can be provided to the broadest population that is currently underserved. This may not be measured in “headcount” but in quality of service improvements. Where there was no ability for an ambulance to send critical function data ahead to a hospital, even a small bandwidth wireless system properly implemented can send more than enough data from the ambulance to the hospital to make a huge difference in care once the ambulance arrives at the emergency facility.
- Can the project be accomplished in the 2-3 year time period described by the BTOP
- Can the economics of the served community support the project after government funds are used

c. 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?

Priorities should follow the intent of the BTOP program, and focus on service provided where little or none is provided today.

- would this project happen at all, or in the time period stated by the BTOP without government money and support?
- Is there a compelling need for the project in the area proposed?
- What is the economic stimulus of the project?
- What critical services can be provide to the broadest population that is currently underserved. This may not be measured in “headcount” but in quality of service improvements. Where there was no ability for an ambulance to send critical function data ahead to a hospital, even a small bandwidth wireless system properly implemented can send more than enough data from the ambulance to the hospital to make a huge difference in care once the ambulance arrives at the emergency facility.
- Can the project be accomplished in the 2-3 year time period described by the BTOP
- Can the economics of the served community support the project after government funds are used

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

Telecommunications – Broadband infrastructure is a key to economic and public safety service growth. Enhanced infrastructure will provide large stimulus to adding services in areas where none or few existed. Bundling proposals with other Recovery Act Projects in certain areas may be prudent and powerful. However, development of rural or tribal infrastructure will also allow for significant impact and “bang for the buck”.

e. 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?

Priority must be given to areas that have the most to gain from the stimulus of the BTOP. In general this means bringing the most enhanced “services” and potential for services to the least served areas. Bringing WIMAX to Atlanta or Denver does not have the same critical impact or stimulus on the underserved as bringing 700KBs infrastructure and critical services such as 3G phone and internet and ambulance data capability to a rural or tribal area.

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

- Require applicants to agree to follow a broadband pricing commitment that will be compelling to increase take rates in unserved areas. This initial pricing might be a multiple year commitment to ensure take. Any pricing increase should be in line with the general inflation rate.
- A business plan or summary showing high level sustainability through profitable operations might be part of the application process to ensure some thought around sustainability on the part of the carrier.

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

Open Standards and ability to interconnect with legacy or future systems should be a mandatory part of each BTOP approved project. Infrastructure that offers many services to be implemented and shared should have priority over infrastructure focused on a single service or capability.

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

Retail price plays a role in so much as pricing for the rural programs should not be substantially different than those offered in urban areas. History has shown that with delivery of initial services, competitive forces will come shortly there after ensuring competitive pricing. The beauty of broadband is once infrastructure is in place and given that infrastructure is open for all to use, competitive forces will ensure competitive price. Hence a reiteration of the need to allow open market forces across these publically funded networks.

5. Grant Mechanics: The Recovery Act requires all agencies to distribute funds efficiently and fund projects that would not receive investment otherwise.

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

There is inherent inertia in the Federal government in terms of allocating funds and defining “high need areas” We propose that States have a role in allocating priorities, but in areas where the projects cross state lines or are in potential conflict with state needs (such as on Tribal lands – in essence crossing political boundaries), the Federal Government will need to provide input into the priorities and grant process.

This BTOP is a program never before attempted by the Federal Government or the States. As such, new methods of prioritization and allocation will be needed. Projects that before would never be proposed can now be proposed, and found worthy of funding.

Our position would be that the state should have a significant role in determining high level projects through forming broadband panels to review specific programs and scoring them on a transparent system that still needs to be determined.

There are many grants and loans available. To make projects even more feasible, continued subsidy funds might be necessary in underserved or unserved areas.

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

See above.

6. Grants for Expanding Public Computer Center Capacity: The Recovery Act directs that not less than \$200,000,000 of the BTOP shall be awarded for grants that expand public computer center capacity, including at community colleges and public libraries.

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

Given that this is slated to be a capital infrastructure program, once the systems are in place, operational expenses are going to be the concern for sustainability. Once public monies have been distributed to build networks, those recipients of funds should ensure affordable pricing and competitive access to ensure pricing stays in check. To make projects even more feasible, continued subsidy funds might be necessary in underserved or unserved areas. RUS and ERATE will need to explore such sustainment finding to ensure the continued support to the Libraries and other such entities.

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

Given the push for alternative energy, we would suggest a similar offering to those carriers that are working to deliver services to companies developing alternative forms of energy. .

Further, Tribal libraries and culture centers would benefit from such an outreach.

7. Grants for Innovative Programs to Encourage Sustainable Adoption of Broadband Service: The Recovery Act directs that not less than \$250,000,000 of the BTOP shall be awarded for grants for innovative programs to encourage sustainable adoption of broadband services.

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

Sustainment means that once the initial installation and activation of broadband services is complete, there must be adequate utilization and revenue to allow for maintenance of infrastructure and applications. The higher the initial cost of the network and maintenance cost (such as that found in a high bandwidth network such as WIMAX – NYCWiN), the higher the revenue flow must be to maintain the network. A lesser capability network would allow for lower implementation costs and lower maintenance costs, thus requiring a lesser revenue flow to maintain the network and to grow the network.

Revenue will be a combination of user fees, local tax support (for ambulance telemetry and public safety applications of the network), and tribal – federal subsidies (as is provided today for rural telephone services). Further revenue will come from the growth of commercial users of the network because those commercial entities will desire to take advantage of the new infrastructure.

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

Revenue and costs measured over a multiple year period will tell if the projects become sustainable. Key will be to maximize the potential for sustainability by providing reasonable service and applications and not “reaching for the stars” and providing services that are only sustainable in large metropolitan areas.

8. Broadband Mapping: The Recovery Act directs NTIA to establish a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial provider or public provider throughout each State. (Section 6001(I)).

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

Firstly, there is a need for mapping capability at the start of projects and in fact should be part of the funding review and award criteria and process. In particular, NTIA, RUS, and the states need a standard means by which to evaluate whether in fact proposed projects deliver services to areas with none today. Likewise, entities submitting project applications need a means by which to determine where and what to build. So initially, the mapping system would serve the application, review, award, and kickoff of broadband services projects.

Then, the mapping system must become a means to validate before and after project metrics in terms of geographical and demographic areas served. As project deployment gets underway and as projects are ultimately completed, there would many uses of the mapping system, including:

- Businesses who wish to engage the workforce in new areas served by broadband services as a result of project deployment.
- Government agencies who wish to validate the success (or exceptions) based on funded projects as a means to validate initial goals were in fact achieved.
- Various entities (tribal, educational, private industry) who need on an ongoing basis to continually identify gaps in services which ultimately need to be served.

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

There should be no distinction between governmental entities, private industry, or consumers in terms of the level of information accessible via the mapping system. Certainly various data sets will be of more interest to one entity than another, however to ensure transparency and un-impeded access to necessary information, there should be no barriers.

Mapping capabilities should be able to show at a macro level, with “drill down” to local levels, the availability of current telecommunications services and infrastructure. In addition, the mapping capability must include census data, demographics, land features, political boundaries, etc, as found in most commercial mapping systems. Additionally, the system should also contain

specifics of the respective new project areas such as technology deployed, spectrum utilized, speeds available, etc.

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

Generally speaking more granularity is better.

Certainly it is useful to view the entire country, or “zoom” into regional or state level views. However the true story will require very granular views down to the census block level, for example. The base metric should be along the lines of particular interest groups served and at what approximate speeds are those groups served. For example, businesses, general population, specific demographic within the population, schools, hospitals, etc

- d. What other factors should NTIA take into consideration in fulfilling the requirements of the Broadband Data Improvement Act, Public Law 110-385 (2008)?

Likely the more challenging aspect of the mapping system will be that of compliance and accuracy of the data. For example, commercial operators today may not be forthcoming with the level of detail necessary. In many cases, service area claims and data speeds may overstate what is actually deployed and thus cause an area to appear served when in reality, may be under-served or not served at all. Certainly as new projects are deployed, there can be an “acceptance” testing process which measures delivered service and data speeds. Another consideration however would be a means to require operators of NTIA and RUS – funded projects to continually update the mapping system with measured speeds, to ensure services are not left to degrade after initial deployment is completed.

- e. Are there State or other mapping programs that provide models for the statewide inventory grants?

Mapping programs exist which are more than capable of meeting the requirements. However the key to rapid deployment will be to start with mapping systems which are in use today and contain at least some of the necessary data. One such system is called Fibersource from CFN Systems Inc. Fibersource contains an extensive inventory of fiber infrastructure, Local Exchange Carriers, and wireless infrastructure nationwide. Fibersource is based on a commercial mapping platform which supports terrain, land, demographic, and boundary layers typically found in full-featured mapping systems.

- f. Specifically what information should states collect as conditions of receiving statewide inventory grants?

State inventories must be granular enough to determine those areas where service in fact does not exist and will not exist without grant funding. Inventories must

include all existing service providers, wired and wireless, their coverage at the census block level of detail, and data rates provided within that coverage. Typically in a wireless network, particularly where mobile services are provided, data rates need to be expressed in terms of the “cell edge”. This will serve to minimize overstating service claims to areas which in fact have little to no data service today.

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

There are standards which define how mapping systems, aka GIS (geographical information systems) exchange data. Typically, data files can be exchanged between various systems however proprietary formats do exist. The simplest approach would be to first evaluate best in breed systems in use at the state level, standardize on the national platform, then ensure all other entities can comply with the technical requirements of the national system.

h. Should other conditions attach to statewide inventory grants?

i. What information, other than statewide inventory information, should populate the comprehensive nationwide map?

Ideally, the nationwide map contains all underlying data from the states and other sources, where the state level view is simply a subset of the overall national system. In this manner, the national system would contain the following as examples:

- availability of current telecommunications services and infrastructure.
- census data, demographics, land features, political boundaries.
- specifics of the respective new project areas such as technology deployed, spectrum utilized, speeds available, etc.

j. 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?

The FCC should have access to all telecommunications service providers in terms of geographical areas served, authorized to serve, etc. As such, the FCC can be a valuable source of data to NTIA for mapping purposes.

9. Financial Contributions by Grant Applicants: The Recovery Act requires that the Federal share of funding for any proposal may not exceed 80 percent of the total grant. (Section 6001(f)). The Recovery Act also requires that applicants demonstrate that their

proposals would not have been implemented during the grant period without Federal assistance. (Section 6001(e)(3).) The Recovery Act allows for an increase in the Federal share beyond 80 percent if the applicant petitions NTIA and demonstrates financial need.

a. 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?

Financial need may be established by many programs. The SBA 8a program has some proven processes for establishing "financial status and need". We feel that many of the projects we are planning will not move forward at all without federal support. With agencies such as Osweeta, we can make that case that we are focused on multiple sources of revenue – Federal, private, and tribal. We will use all sources of funding available.

b. What factors should the NTIA apply in deciding that a particular proposal should receive less than an 80 percent Federal share?

If a project already has published commitment levels, and the project is of a priority and quality to receive BTOP grant approval, then the government may choose to fund the project only to the level required to complete funding for the project.

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

An explanatory analysis of most projects will demonstrate that projects would or would not be feasible without Federal Assistance. By definition, unserved and underserved areas are commercially "unfeasible" projects and are not built out because the economics of the projects are unjustifiable without assistance.

10. Timely Completion of Proposals: The Recovery Act states that NTIA shall establish the BTOP as expeditiously as practicable, ensure that all awards are made before the end of fiscal year 2010, and seek assurances from grantees that projects supported by the programs will be substantially completed within two (2) years following an award.¹⁰ The Recovery Act also requires that grant recipients report quarterly on the recipient's use of grant funds and the grant recipient's progress in fulfilling the objectives of the grant proposal.¹¹ The Recovery Act permits NTIA to de-obligate awards to grant recipients that demonstrate an insufficient level of performance, or wasteful or fraudulent spending (as defined by NTIA in advance), and award these funds to new or existing applicants.¹²

¹⁰ Section 6001(d).

¹¹ Section 6001(i)(1).

¹² Section 6001(i)(4).

a. 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?

The grant process is difficult unless definable and defensible criteria is established. We suggest the following key points:

- An “unserved area” should be defined as an applicant area in which at least 50% of the households do not have access to a cable or DSL broadband service provider.
- An “underserved area” should be defined as an applicant area in which at least 50% of households do not subscribe to a cable or DSL broadband service provider, regardless of whether or not broadband service is available, or an applicant area in which at least 50% of households have access to no more than one broadband internet service provider.
- establish where decision on grant award will be placed (Federal, Agency, State levels) establish which are the proper entities that can request grants and implement projects

b. 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)?

We propose that a prudent application will include:

- Mission of the Project (what is the application designed to do?)
- Description of the project and evaluation of the impact of the project to explain “bang for the buck”.
- Time line of the Project
- Prime Requestor and Partnerships and Team members (designated by letters of agreement or Teaming agreements and internal funding agreements)
- Milestones, progress reports, agreements to inspections by appropriate government agencies
- Credentials of Team Members
- Market assessment for the project proposed, including local commitments in advance if possible

11. Reporting and Deobligation: The Recovery Act also requires that grant recipients report quarterly on the recipient's use of grant funds and progress in fulfilling the objectives of the grant proposal.\13\ Section 6001(i)(1). The Recovery Act permits NTIA to de-obligate funds for grant awards that demonstrate an insufficient level of performance, or wasteful or fraudulent spending (as defined by NTIA in advance), and award these funds to new or existing applicants.\14\ Section 6001(i)(4).

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

Inappropriate spending should be considered within the following:

- Proof of fraud or illegal activities involved win the project
- Unapproved delays in project development and implementation
- Falsification of documentation to the Government
- Unsustainability of the project post delivery
- Non delivery of services promised

b. How should NTIA determine that performance is at an "insufficient level?"

We think that the Performance of the implementation stage is measured in different manner than that of sustainment phase.

Performance must be defined. In the project development and implementation stage, Key Performance Indicators will include:

- Meeting Project Milestones
- Demonstrating key technologies
- Maintenance of Funding
- Implementation of services
- Reporting as required

In the project operations stage, KPI will include:

- Acquisition of users
- Cash flow
- Reporting as required
- Network performance (service quality)
- Network sustainability

Project implementation is well within the scope of BTOP to evaluate for sufficient levels of performance. The operations – sustainment phase is outside the scope of the BTOP unless follow on funding is part of the Grant.

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

Depending upon the percentage of network / project built out at the time of discovery of “wasteful or fraudulent spending”, there are a number of options:

- BTOP assuming the control of the project and making the evaluation to complete the original scope of the project or modify the scope.
- BTOP assigning the project to another Prime entity
- BTOP terminating the project

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

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

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

13. Definitions: The Conference Report on the Recovery Act states that NTIA should consult with the FCC on defining the terms “unserved area,” “underserved area,” and “broadband.”¹⁵ The Recovery Act also requires that NTIA shall, in coordination with the FCC, publish nondiscrimination and network interconnection obligations that shall be contractual conditions of grant awards, including, at a minimum, adherence to the principles contained in the FCC's broadband policy statement (FCC 05-15, adopted August 5, 2005).¹⁶

¹⁵ H.R. Rep. No. 111-16, at 776 (2009) (Conf. Rep.).

¹⁶ Section 6001(j).

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

In 10 above, we propose one definition of un-served and under-served:

- An “unserved area” should be defined as an applicant area in which at least 50% of the households do not have access to a cable or DSL broadband service provider.
- An “underserved area” should be defined as an applicant area in which at least 50% of households do not subscribe to a cable or DSL broadband service provider, regardless of whether or not broadband service is available, or an applicant area in which at least 50% of households have access to no more than one broadband internet service provider.

Another alternative set of definitions might also be:

- Unserved = areas with no telephone or cellular access, or areas with telephone access that is not of a quality to support dial up internet access
- Underserved = areas with dial up internet access and less than 3G cellular service (implies no wireless internet service or satellite only internet service).

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

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

Current broadband technologies provide a wide range of “speeds”. Thresholds of sufficiency are highly predicated on “what was there before”. If an area is unserved (areas with no telephone or cellular access, or areas with telephone access that is not of a quality to support dial up internet access), then providing wireless internet access at 100Kbps would be considered significant enhancement. If an area is underserved (areas with dial up internet access and less than 3G cellular service) then the addition of wireless internet or data services at 3G speeds (780Kbps) would also be considered a significant improvement.

Moving to LTE or extreme high speed WIMAX in an unserved or underserved areas may not be economically feasible. Rural areas – where the most underserved and unserved areas tend to be – are most difficult to

implement extreme high speed technologies. Mid – level speed technologies are more appropriate to serve rural areas. Further, mid-level technologies are mature technologies and would have a much better chance for rapid implementation as required by the BTOP.

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

Given the definitions proposed above, the speeds appropriate for each project should be established and justified on a per project basis. What is “proper” for Atlanta or Denver may not be “proper” for Gordon, GA (31031) or Durango, CO. There are unserved areas that will continue to suffer as long as this subject stalls deployment. Those areas would be ecstatic to have 768k today.

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

Mature technologies have established “speed” expectations. These are generally defined as “up to” speeds. All technologies have upper limits and in practice, the upper limits are seldom achieved. And in all applications, the performance of broadband will depend upon many variables such as tower height, terrain, receiving location, network error correction, maintenance, distance from network locations, etc. At close range, 10 Mbps may be sustainable to a user, but 2 miles from a site, the service may only be possible at 1Mbps or less. This is also true with sired technologies such as DSL.

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

Currently available commercial broadband technologies are generally asymmetrical. BTOP should not be held to a higher standard.

(5) How should the BTOP consider the impacts of the use of shared facilities by service providers and of network congestion?

Proper network design will minimize the impact and maximize the opportunities presented by shared facilities. We propose that all projects have the requirement to use standard protocols as much as possible, and to allow for interconnectivity with existing, legacy, and future networks as prudent.

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

(1) 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?

As these projects deliver service to new areas, particularly in the case of a wireless deployment, other carrier's customers may in fact "roam" into the new area. As a condition of grant, the grantee should be required to provide interconnecting carriers with a) fault and performance data such that the interconnecting carrier can measure the level of service carrier's customers receive while utilizing grantee's network, and b) billing detail data, such that carrier can determine it's customer's location and calling patterns while utilizing grantee's network.

(2) Should the network interconnection obligation be based on existing statutory schemes? If not, what should the interconnection obligation be?

Existing requirements may be sufficient, however there may be benefit in achieving more transparency to ensure the public need in the previously unserved area is met. As an example, providing call detail records in their entirety would be useful.

(3) Should there be different nondiscrimination and network interconnection standards for different technology platforms?

No. There should be no reason why one technology could or should require different standards. The exception may be in the case where a fixed (wired) solution is implemented rather than wireless, however in our view the intent is in fact geared to wireless solutions.

(4) Should failure to abide by whatever obligations are established result in de-obligation of fund awards?

Grantees should be given a reasonable grace period in which to become compliant, however abiding by obligations should be a requirement of fund awards.

(5) 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?

Rural telecommunications are now partially subsidized by Federal or other funds (either directly or through tax programs). The original funds used for project implementation may not be adequate to maintain networks as subscribers join the networks. Until the network subscriber base reaches a

level required for network sustainment, there may be a need to subsidize the rural networks.

A source for these funds could come from a restructuring of the USF Fund to include Broadband as a basic service. As well, many states have a subsidy program such as Colorado's High Cost Fund and to allow a portion of that fund to subsidize broadband would be a good source of ongoing funding.

d. 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?

Defining some "public good" sites is essential to the deployment of these funds. It will be more successful if private business can seek out these sites and partner with them to fully leverage these funds. These sites would include libraries, schools, community centers etc and the benefit of leveraging these sites is they already have access to ongoing funding through ERATE and the USF to ensure future sustainability.

d. What role, if any, should retail price play in these definitions?

Retail price will be determined by competitive pressures and economic demographics. There may be an initial price inflation based on costs and lack of competition, however, competitive pressures will ensure price is in line. Thus reiterating the need to make these networks allow for open competition if receiving public funds.

14. Measuring the Success of the BTOP: The Recovery Act permits NTIA to establish additional reporting and information requirements for any recipient of grant program funds.

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

b. 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?

15. 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.

RUS

The provisions regarding the RUS Recovery Act broadband grant and loan activities are found in Division A, title I under the heading Rural Utilities Service, Distance Learning, Telemedicine and Broadband Program of the Recovery Act.\17\

\17\ The text of this authority is as follows:

DISTANCE LEARNING, TELEMEDICINE, AND BROADBAND

PROGRAM For an additional amount for the cost of broadband loans and

loan guarantees, as authorized by the Rural Electrification Act of 1936 (7

U.S.C. 901 et seq.) and for grants (including for technical assistance),

\$2,500,000,000: Provided, That the cost of direct and guaranteed loans

shall be as defined in section 502 of the Congressional Budget Act of

1974: Provided further, That, notwithstanding title VI of the Rural

Electrification Act of 1936, this amount is available for grants, loans and

loan guarantees for broadband infrastructure in any area of the United

States: Provided further, That at least 75 percent of the area to be served

by a project receiving funds from such grants, loans or loan guarantees

shall be in a rural area without sufficient access to high speed broadband

service to facilitate rural economic development, as determined by the

Secretary of Agriculture: Provided further, That priority for awarding

such funds shall be given to project applications for broadband systems

that will deliver end users a choice of more than one service provider:

Provided further, That priority for awarding funds made available under

this paragraph shall be given to projects that provide service to the

highest proportion of rural residents that do not have access to broadband

service: Provided further, That priority shall be given for project

applications from borrowers or former borrowers under title II of the

Rural Electrification Act of 1936 and for project applications that include

such borrowers or former borrowers: Provided further, That priority for

awarding such funds shall be given to project applications that

demonstrate that, if the application is approved, all project elements will

be fully funded: Provided further, That priority for awarding such funds

shall be given to project applications for activities that can be completed if

the requested funds are provided: Provided further, That priority for

awarding such funds shall be given to activities that can commence

promptly following approval: Provided further, That no area of a project

funded with amounts made available under this paragraph may receive

funding to provide broadband service under the Broadband Technology

opportunities Program: Provided further, That the Secretary shall submit

a report on planned spending and actual obligations describing the use of

these funds not later than 90 days after the date of enactment of this Act, and quarterly thereafter until all funds are obligated, to the Committees on Appropriations of the House of Representatives and the Senate.

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

a. 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;

b. Promote leveraging of Recovery Act funding with private investment that ensures project viability and future sustainability; and

b. Ensure that Recovery Funding is targeted to unserved areas that stand to benefit the most from this funding opportunity.

It is our experience that the funding issues that have been a problem for the RUS for many years come from its attempt to fund all projects from the federal level not allowing the much needed state, tribal, or alternate, input. Each state and tribal area is unique and it is impossible for a person in Washington to know the needs of deep rural areas in all the states.

Much of the RUS funding was dependant on census information and many of the "unserved" areas are not represented in the latest census information thus disqualifying them automatically which is counterproductive for the programs intentions.

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?

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:

(a) 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?"

In our opinion, most areas of unserved and underserved will be rural or tribal lands.

(b) 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?

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

(a) 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?

Rural telecommunications are now partially subsidized by Federal or other funds (either directly or through tax programs). The original funds used for project implementation may not be adequate to maintain networks as subscribers join the networks. Until the network subscriber base reaches a level required for network sustainment, there may be a need to subsidize the rural networks.

Current broadband technologies provide a wide range of "speeds". Thresholds of sufficiency are highly predicated on "what was there before". If an area is unserved (areas with no telephone or cellular access, or areas with telephone access that is not of a quality to support dial up internet access), then providing wireless internet access at 100Kbps would be considered significant enhancement. If an area is underserved (areas with dial up internet access and less than 3G cellular service) then the addition of wireless internet or data services at 3G speeds (780Kbps) would also be considered a significant improvement.

Moving to LTE or extreme high speed WIMAX in an unserved or underserved areas may not be economically feasible. Rural areas – where the most underserved and unserved areas tend to be – are most difficult to implement extreme high speed technologies. Mid – level speed technologies are more appropriate to serve rural areas. Further, mid-level technologies are mature technologies and would have a much better chance for rapid implementation as required by the BTOP.

Given the definitions proposed above, the speeds appropriate for each project should be established and justified on a per project basis. What is "proper" for Atlanta or Denver may not be "proper" for Gordon, GA (31031) or Durango, CO.

Applicants must be encouraged to provide maximum benefit for the utilization to taxpayer funds. Projects that cannot be accomplished without grant money should be given the highest of priorities. These projects must, however, be seed projects for long term stimulation and growth. Example – a project that provides 100MBS data service for \$X,000,000 may be compared with a similar cost project that provides 700KBS. At similar costs, the 100MBS service will provide services in a much smaller area than the 700 KBS services. The 100MBS project is most economical in a dense population area. The 700KBS project can be used economically in less populated areas. In dense population areas, there is a high probability that some level of broadband service already exists. In the less populated areas there is a lesser probability of existing broadband. The 700KBS service can provide service in a much wider area for the same cost, providing more access to more people.

(b) What speeds are needed to facilitate "economic development?" What does "high speed broadband service" mean?

See above.

(c) 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)?

<Our business/competitive model would not really work in non-rural environment, so we should leave this alone.>

4. 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?

We have seen projects proposed to RUS on behalf of the regional hospitals and they were automatically disqualified due to the census issues and the economic need calculations. Current use of census information is a poor predictor of need or rural designation.

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.

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

- Maximum effect in changing unserved to underserved or served.
- Maximum effect in changing underserved to served.

The Recovery Act gives RUS new tools to expand the availability of broadband in rural America. RUS is seeking suggestions regarding how it can measure the effectiveness of its funding programs under the Recovery Act. Factors to consider include, but are not limited to:

- a. Businesses and residences with "first-time" access.
- b. Critical facilities provided new and/or improved service:
 - i. Educational institutions.
 - ii. Healthcare providers.
 - iii. Public service/safety.
- c. Businesses created or saved.
- d. Job retention and/or creation.
- e. Decline in unemployment rates.
- f. State, local, community support.