



East-Central Vermont Community Fiber-Optic Network
Box 8, White River Junction, VT 05001

**TO: ASSISTANT SECRETARY OF COMMERCE, NATIONAL
TELECOMMUNICATIONS AND INFORMATION AGENCY**

FROM: EAST CENTRAL VERMONT COMMUNITY FIBER NETWORK

DATE: April 13, 2009

RE: Response to request for Comments on Broadband Opportunities Program

Background

East Central Vermont Community Fiber Network is a joint venture of 22 small towns and villages. We very much appreciate the opportunity to submit comments to NTIA as to how best to interpret and implement the sections of the American Recovery and Reinvestment Act of 2009 that has created the Broadband Technology Opportunities Program..

Purposes

Do Not Limit Funding by Purpose Served, Nor Limit Grant Applications by Funding Round

NTIA should not establish a certain percentage of grant funds be apportioned to each purpose established in Section 6001 of the Act nor should NTIA limit the type of application it considers in the three proposed rounds of funding. To do so could result in a worthy application in one category going unfunded, while a lesser grant application in another category being funded. This becomes an even greater likelihood since NTIA has indicated that it plans to offer funding in three separate funding rounds. Rather, NTIA should apply screening criteria that more closely reflect the priorities set by the legislation. We offer some suggestions to this effect, below.

Multiple Purpose Applications Should be Encouraged and Rewarded

NTIA should encourage applicants to address more than one purpose in their application, but failure to address more than one purpose should not be a fatal flaw. NTIA can provide applicants guidance on the benefit of meeting additional purposes by outlining the scoring advantages of meeting multiple purposes.



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Leveraging Funds

1. NTIA can best leverage its grant funds by using such funds as complements to non-federal sources of financing, but also explicitly permitting NTIA grant funds to be used to provide the equity component required for RUS broadband loans and loan guarantees. In so doing, NTIA grant money will fund many multiples of investment beyond what could be achieved by simple grants alone. Another way in which NTIA could leverage grant money beyond the 20% match required in the legislation, would be to give priority to grant applications that have a source of funds greater than the 20% minimum. NTIA should also examine the legality or acceptability of applications that propose to use NTIA grant funds to establish state and/or local revolving loan funds for telecom projects.

Projects that do not necessarily tap other ARRA sources of funds should not be excluded from consideration on that ground. If BTOP established a priority for projects using other sources of funds (eg., from education, transportation, etc.), it could result in only a handful of very large projects absorbing a disproportionate share of available funds. This could unduly concentrate the geographical dispersion of available funds, potentially compromising the economic stimulus intent of the legislation. Further, such a priority could slow down distribution of grant funds, given the cumbersome process of coordinating grant programs amongst several federal agencies, whereas the intent of the ARRA legislation is to distribute funds quickly, in order to effect stimulus to the economy while private activity remains sluggish. Other project criteria (see below) should have at least equal, if not more, weight in BTOP's "scoring" process.

4. NTIA should consider acceptable the use of a grant award to fund a partial loan guarantee or debt service reserve fund, for projects that would otherwise be able to raise money from private sources, but for the current adverse credit market environment. In particular, NTIA should accept use of grant funds to provide loan guarantees or debt service reserve up to a maximum of 60% of an individual project's total financing. Since such a provision would have a large non-federal component, NTIA could use expedited procedures for approval, i.e., within 60 days of receiving such an application, since significant due diligence would have already been done by the parties providing the other 40% of project financing. Such an award should require that the project must raise its financing within 120 days of receiving the Secretary's guarantee approval. Further, such a project must be designed to offer broadband connectivity to every business and institutional location and every residence within the project territory, and provide open access connectivity on a non-discriminatory basis, i.e., to serve the public interest intent of the legislation.



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The Role of the States

NTIA, not the States, Was Designated to Run Program

Congress made clear that NTIA, not the states were to administer the BTOP program. As NTIA itself notes in its NOI, the Act makes clear consultation with the states is not mandatory for the awarding of grants. Still, NTIA can craft its scoring criteria to recognize state priorities, but not weight such status to the point that it overturns NTIA scoring of the project such that the states would have veto authority.

State Role, While Limited to Consulting at Option of NTIA is Valuable

The Act makes clear that the appropriate role for States in selecting projects for funding is in a consulting role at the discretion of NTIA. NTIA was not authorized to surrender management of the program to the states.

BTOP is a National Program Funded with Federal Dollars the Should be Guided by Federal Broadband Policy

BTOP should be governed by a national broadband policy and funded with federal dollars. Therefore NTIA should resolve differences among groups or constituencies within a State by scoring all such applications against a federal scale for judging applications. In so doing, NTIA will be acting in support of a national broadband policy.

State Applications Should Be Subject to Identical Scrutiny as Non State Applications

The statute provides no separate classifications for grants based upon the credentials of the applicant. Therefore NTIA must examine projects proposed by States under the same terms and conditions as those filed by local governments and non-governmental entities. All grants should have the burden of providing well-executed, worthwhile and measurable results. The only exception to this rule can be found in the statute's direction that private sector funding requests must meet a separate public purpose test.



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Eligible Grant Recipients:

Local Governments and other not burdened by profit motive are Protected Class of Applicants

The statute makes clear that certain grant applicants, i.e., those listed in Section 6001(e)(1)(A) and (B) such as local governments and nonprofits are deemed automatically eligible as their only reason for existence is to meet a public good. Their lack of profit motive will facilitate terms such as interoperability, interconnection and open network management as the interconnecting party serves as the grant recipient's partner in bringing broadband to the nation. BTOP should set a high priority on funding projects that are willing to embrace interoperability, interconnection and non-discriminatory access to the network. Congress did also recognize the partnerships with for-profit entities may also serve the statute's goal of increasing employment and enhancing broadband deployment, but such applicants should be required to show willingness to adhere to specific interconnection and open access obligations. Even if NTIA is not able to establish a defined public interest test in time for the first round of grant awards, the grant process can move forward since subsequent grant NOFAs should offer sufficient opportunity for for-profit partnerships willing to adhere to those standards. The public interest standard should be that the infrastructure made possible by federal funds serve a federal goal, not a profit motive and that private investment is not displaced. Moreover, the statute requires "open access," which is nothing more than "common carriage" by a modern name. An applicant that refuses to make such a commitment should be disqualified.

Establishing Selection Criteria for Grant Awards:

A. NTIA should employ the following network selection criteria and scoring (100 possible points) for grant awards:

1. **Universal Deployment** – No application should be considered that does not provide for universal availability within the proposed area to be served. Applicants cannot be permitted to "cherry pick" "pockets" within a community and leave the remainder in an even greater peril of ever being served. Universal coverage is one of the most important components of determining whether an area is currently "unserved/underserved." It must be mandatory obligation for any funded project. **(No points awarded – but no grant can be issued without including a universal deployment commitment.)**
2. **Affordability** – mere presence of broadband is meaningless if the local population cannot afford to purchase the connection. Grant applications should provide some forecast of pricing policy. **(35 points)**
3. **Speed in BOTH directions:** Fast upload is also important--and rapidly becoming JUST as important as download; **(20 points)**



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4. **Latency:** Latency comes in two flavors: a) the average delay per packet; and, b) variability in the amount of delay (known as "jitter"). High latency (i.e. lengthy and/or irregular delay in delivering packets) is death on many applications (e.g. video---which includes such things as real time transmission of medical data like MRIs, XRays etc). Bad latency and jitter are very common in many wireless applications. **(10 points)**
5. **Reliability:** Traditional telephone networks are engineered to the famous "5-nines" standard (i.e. each element is engineered to work 99.999% of the time). Applicant's networks should be engineered to the same standard. In systems where constrained bandwidth is shared between many customers, the reliability of advertised speed is very low. Almost every DSL, cable modem or wireless subscriber is familiar with the fact that their networks work pretty well at 3:00 AM--but slow to a crawl at 6:00 PM. Reliability--both of the connection itself and of its characteristics is, obviously, fundamental to a bedrock, foundation infrastructure. **(10 points)**
6. **Upgradeability:** Demand for bandwidth (and low latency, reliability etc) is growing rapidly. Any technology which meets today's standard but is difficult/expensive to upgrade over time is should not be eligible for funding or at least should be scored lower. The rationale for such demerits is clear. The taxpayer should be entitled to rely upon the network elements (s)he pays for with the stimulus money for as long as possible. **(10 points)**
7. **Sustainability:** grant applicants should provide evidence of a continuing source of revenue and adequate business plan that can assure continuing availability of service beyond the term of the grant. (10 points)
8. **State endorsement.** If a Governor of a state, or the Governor's designee, officially endorses the project set forth in an application. **(5 points)**

B. Principles

- Priority should be given to proposals that address several purposes, and/or serve several of the populations identified in the Recovery Act, and/or provide service to different types of areas.
- While the statute calls on NTIA to promote broadband in a technologically neutral manner, NTIA should nevertheless weigh the characteristics of different technologies. As referenced above, not all technologies can offer the same services, but then again, the price point for access is also not the same for all technologies. Speed, affordability, latency, upgradability and the use of dedicated or shared links should be considered given the statute's direction that, to the extent practicable, the purposes of the statute.
- **Retail price is a vital element in determining if the service is accessible.**



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V. Grant Mechanics

A. NTIA , in addition to traditional grant and loan programs, should develop a check list of minimum required characteristics that reflect priorities established in the legislation. Applicants would need to describe in detail how their project addresses those priorities and/or requirements, particularly Sec. 6001(b (3d, e, g, h (2) and h(3). To facilitate rapid decision-making for grant wards, the agency should rank applications by the number of elements satisfied.

B. NTIA should establish a timetable that would, for example, require that a preliminary decision be made and communicated to applicants satisfying some target ranking as described in the above paragraph, within 60-90 days of the application being filed, with an additional 60 days for detailed review and final issuance of funds. To qualify for such a fast-track process, projects should be required to comply with our paragraph IV above.

Grants for Expanding Public Computer Center Capacity

Local Governments and their affiliates have rich histories in offering Public Computer Centers and Should be Eligible

In addition to community colleges and public libraries, local governments are established in the statute as eligible institutions for public computer center funding. Other local government entities or partnerships such as PEG studios and PEG corporations would also serve as logical partners in meeting congressional intent in crafting the legislation.

Grants for Innovative Programs to Encourage Sustainable Adoption of Broadband Service:

A. Sustainable adoption of broadband service requires that the service be available on a continuing basis long after the grant period has ended. Thus, all programs reviewed under this heading should provide evidence of a sustainable revenue source sufficient to support the proposed service after grant funds have been expended.

B. Proposals that coordinate efforts across multiple local governments or other eligible joint venture partners would represent an innovation in spreading broadband adoption across wider geographical areas.



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Financial Contributions by Grant Applicants:

NTIA is correct that the statute requires applicants to demonstrate that their proposals would not have been implemented during the grant period without Federal assistance and that absent a showing a financial need, no grant shall be for more than 80 percent of the cost identified in the application.

Private Funding Requests Should Receive non more than 50% funding.

As a general rule, NTIA should consider establishing a 50% funding cap on any private for-profit application that is found to meet the Agency's public interest test, but is not a partnership in which a government or non-profit is the managing entity. Limiting the percentage of funding that a private for-profit enterprise may seek will serve a dual purpose. It will double the number of grants that NTIA could make available to this unprotected class of applicants and reduce the incentive for private enterprises to seek to supplant private financing with BTOP funds.

History is best indicator of Federal Funding reliance

Grant applicants that can show previous efforts to achieve the purposes of their applications for lack of funding can most easily demonstrate that the proposal would not have been implemented without Federal assistance. Those that are seeking to achieve approved goals for the first time could seek legal and financing opinions that but for the Federal Assistance they would not participate in funding the non-Federal sources of funding.

C. Waivers of the 20% funding match requirement should be used sparingly and only upon a well-documented showing of the financial sustainability of the proposals.

Timely Completion of Proposals

NTIA through its grant application process can act proactively to ensure that projects are completed not only within 2 years of the grant, but also consistent with the applications timetable.



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Coordination with USDA's Broadband Grant Program:

NTIA and RUS should accept proposals that segment part of a project for NTIA grants and part of a project for RUS loans, as these are specifically targeted at broadband development.

B. Please see our comments in Paragraph I-C above.

Definitions

Underserved Area

Underserved Area means: (1) (i) a geographic area that is not an unserved area where at least 75% of the customers to be served by the project lack affordable access to more than one provider of Current Generation Broadband Transmission Service¹ or (ii) a geographic area that is not an unserved area where at least 75% of the customers to be served by the project lack affordable access to a provider of Advanced Broadband Transmission Service² (which is to be determined separately for wireline/fixed wireless or mobile wireless providers); (2) a geographic area where at least 75% of the Community Anchor Institutions to be served by the project lack access to a provider of wireline/fixed wireless Advanced Broadband Transmission Service at an affordable price or (3) any census tract which is located in (i) an empowerment zone or

¹ Information transfer rate equivalent to at least 5 megabits/second from the provider to the customer (downstream) and at least 1 megabit/second from the customer to the provider (upstream), and, (ii) for a mobile wireless provider, providing on an advertised and reliably available basis at least 90% of the time, to each customer an information transfer rate equivalent to at least 1.5 megabits/ second from the provider to the customer (downstream) and at least 768 kilobits/second from the customer to the provider (upstream) at least 90% of the time,.

² An asymmetrical information transfer rate equivalent to at least 20 megabits/second from the provider to the customer (downstream) and at least 5 megabits/second from the customer to the provider (upstream) or a symmetrical information transfer rate equivalent to at least 10 megabits/second between the provider and the customer at least 90% of the time, and, (ii) for a mobile wireless provider, providing on an advertised and generally available basis to each customer an information transfer rate equivalent to at least 6 megabits/second from the provider to the customer (downstream) and at least 1.5 megabits/second from the customer to the provider (upstream at least 90% of the time,).



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enterprise community designated under section 26 USC Section 1391³, (ii) the District of Columbia Enterprise Zone.

B. Unserved Area

Unserved Area means a geographic area where at least 75% of the customers to be served by the project lack affordable access to a provider of Current Generation Broadband Transmission Service.

C. Answers to Specific Questions

Speed should be a vital element to be considered, but a uniform rate across all platforms may not best serve the nation.

- BTOP should establish rigid threshold transmission speeds for purposes of analyzing whether an area is “unserved” or “underserved” and prioritizing grant awards. These rates may differ given the technology employed, i.e. wired vs. wireless because while wireless minimum are lower, so too may the score achieved based on the reliability score NTIA provides the technology.
- While there are arguments to be made that the statute directs the FCC/NTIA and RUS to be agnostic as to technology platform included in an application, it is not realistic to believe that wired and wireless platforms will offer the same speed. For instance to establish a speed worthy of federal support for a wireline service, NTIA would have to establish a speed that is not realistic for a wireless platform. On the other hand, should NTIA choose an aggressive speed for the wireless platform, such a speed would be relatively pedestrian for a wireline platform.
- At least 20 megabits/second from the provider to the customer (downstream) and at least 5 megabits/second from the customer to the provider (upstream) or a symmetrical information transfer rate equivalent to at least 10 megabits/ second between the provider and the customer, and, (ii) for a mobile wireless provider, providing on an advertised and generally available basis to each customer an information transfer rate equivalent to at least 6 megabits/second from the provider to the customer (downstream) and at least 1.5 megabits/second from the customer to the provider (upstream).

³ Empowerment zone means an area designated by HUD as an Empowerment Zone under 26 U.S.C. 1391–1393. Enterprise community means an area designated by HUD as an Enterprise Community under 26 U.S.C. 1391–1393



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- Threshold speed(s) should be measured and evaluated on average speed during peak usage times of day (eg., evenings between 5 pm and 10 pm for residences and 8 am and 6 pm for businesses.)
- Threshold speeds can be characterized in both symmetrical and asymmetrical standards.

Shared Facilities/Nondiscrimination

- Because tax payers dollars are making the investment in BTOP networks possible, taxpayers have the right to demand that the networks funded have as their mission not only providing affordable access to the greatest number of potential users, taxpayers have a further right to demand that the networks offer choice based on “level playing field” terms of service on facilities funded by BTOP. the BTOP therefore should consider the impact the use of shared facilities by service providers will have.
- The BTOP should define the nondiscrimination and network interconnection obligations to mean that as a condition of receiving a grant, an applicant under penalty of deobligation and additional penalties will make all of its facilities, including those not funded with BTOP funds, available to :

Provide interconnection with any other provider or service providing access to the internet;

Not discriminate in charges, practices, classifications, regulations, facilities, or services in connection with the provision of services, and

Allow customers access to any lawful Internet content.

Nondiscrimination and Network Interconnection Standards

- BTOP network interconnection obligation could be based on existing statutory schemes such as 47 U.S.C. §§ 251 and 252 and the corresponding sections of Title 17 of the Code of Federal Regulations. Still, imposing the obligations as a grant condition avoids the potential for any grant recipient to game the system by referencing statute in its application only to then turn around and challenge the legality of the statute as not applying to their service under recent pronouncements of the legal characterization of broadband service as potentially not being subject to Title II. If not, what should the interconnection obligation be?
- There should be a single nondiscrimination and network interconnection standard across all technology platforms employed.



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Consequences of Failure to Comply

- Failure to abide by whatever obligations are established in the BTOP should result in deobligation of fund awards, the repayment of all funds employed plus interest or judicially imposed specific performance of the terms plus penalty at the option of NTIA.

Obligations Should Survive Length of Grant

- The obligation to comply with nondiscrimination and network interconnection standards should extend no less than the life of the grant and no more than useable life of any infrastructure purchased with BTOP grant funds.

Terms requiring definition

Community Anchor Institutions means schools, libraries, city halls, municipal community centers, public or non-profit health care and/or social service facilities, “first responder” locations such as fire stations, police stations, etc.

14. Measuring the Success of the BTOP:

BTOP success should be measured by:

- a) number of telecom connections with increased bandwidth put in place by close of grant term. These should be identified by type of technology (eg., cable, wireless, fiber optic) and delivered speeds, compared to status quo ante
- b) volume of traffic on BTOP-funded projects at close of grant term, and rate of growth over prior 6 months
- c) financial performance of grant recipient compared to plan
- d) projections of customer count, revenue and income for next 12 months
- e) number of new jobs created by project and total payroll supported by project

Other Issues

Where is the public interest test for private application

The NOI appears to be improperly establishing a single standard for all applications. The statute made clear that there is to be one standard for the protected class of applicants and an additional obligation on all other entities that they must meet a “Public Interest” standard.



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