

EXECUTIVE SUMMARY

The WiMAX Forum appreciates the opportunity to provide comments in response to questions raised regarding the Broadband Technology Opportunities Program (BTOP) to be administered by the National Telecommunications and Information Administration (NTIA) and the broadband stimulus programs to be administered by the Rural Utilities Service (RUS), pursuant to the American Recovery and Reinvestment Act of 2009 (ARRA). These ARRA broadband initiatives give the United States an important opportunity to further promote broadband deployment and adoption. The WiMAX Forum wishes to emphasize the following points to the NTIA and RUS (collectively the “Agencies”) and the FCC regarding to the ARRA Broadband Initiative:

- To take full advantage of this opportunity, the Agencies should allow for-profit entities to be eligible for grant awards and award grants in a cost-effective and technologically neutral manner.
- The terms “broadband,” “unserved” and “underserved” should be defined expansively to ensure that ARRA funding reaches all unserved and underserved Americans. For example, the adoption of one universal “broadband” transmission speed for all technologies would ill serve the needs of many unserved and underserved Americans and be contrary to Congressional intent.
- Similarly, many “unserved” and “underserved” Americans reside in areas served by only one broadband provider. Also, broadband service providers are often hampered by having only a single, high-priced provider of “middle mile” facilities that connect them to the Internet backbone. The Agencies should promote additional competition in these areas.
- The Agencies also should be cognizant of the differences in capabilities between fixed and mobile broadband and ensure that the needs of unserved or underserved areas are met on both accounts. In particular, public safety, health, education and energy efficiency are dependent on applications and services that can only be supported by “fourth generation” mobile networks’ coverage and capabilities.
- The broadband needs of each particular unserved and underserved area should be analyzed to determine the most cost-effective method to serve its constituents. Broadband stimulus funds should be awarded to eligible entities in a technologically neutral manner.
- The Agencies should promote marketplace environments conducive to broadband investment.

Before the
DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION
Washington, D.C. 20230

DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE
Washington, D.C. 20250

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

American Recovery and Reinvestment Act of
2009 Broadband Initiatives

The Commission's Consultative Role in the
Broadband Provisions of the ARRA

Docket No. 090309298-9299-1

GN Docket No. 09-40

COMMENTS OF THE WIMAX FORUM

I. INTRODUCTION

The WiMAX Forum^{®1} is the world's leading organization promoting global standardization for, and adoption of, metro-scale wireless broadband networks using the IEEE 802.16 and ETSI HiperMAN wireless MAN specifications. The WiMAX Forum's goal is to accelerate the introduction of these devices into the marketplace. WiMAX

¹ "WiMAX," "Mobile WiMAX," "WiMAX Forum" and "WiMAX Forum CERTIFIED" are trademarks of the WiMAX Forum. For more information about the WiMAX Forum and its activities, please visit www.WiMAXForum.org. The WiMAX Forum is an organization of more than 520 operators, communications component and equipment companies. The WiMAX Forum's charter is to promote and certify the compatibility and interoperability of broadband wireless access equipment that conforms to the Institute for Electrical and Electronics Engineers (IEEE) 802.16 and ETSI HiperMAN standards. The WiMAX Forum was established to help remove barriers to wide-scale adoption of Broadband Wireless Access (BWA) technology, since a standard alone is not enough to incite mass adoption of a technology.

Forum Certified™ products are interoperable and support metropolitan broadband fixed, nomadic and mobile applications. Collaboratively, the WiMAX Forum is pursuing programs to assure certification and interoperability of Mobile WiMAX™ products, global roaming, interworking to complement existing voice networks, development of applications and services optimized for WiMAX networks, and the promotion of WiMAX products, services and networks worldwide.

The WiMAX Forum appreciates the opportunity to provide comments in response to questions raised regarding the Broadband Technology Opportunities Program (BTOP)² to be administered by the National Telecommunications and Information Administration (NTIA) and the broadband stimulus programs to be administered by the Rural Utilities Service (RUS),³ pursuant to the American Recovery and Reinvestment Act of 2009 (ARRA). These ARRA broadband initiatives give the United States an important opportunity to further promote broadband deployment and adoption.⁴

II. ELIGIBLE GRANT RECIPIENTS

The Conference Report states that: “It is the intent of the Conferees that, consistent with the public interest and purposes of this section, as many entities as possible be eligible to apply for a competitive grant, including wireless carriers, wireline carriers, backhaul providers, satellite carriers, public-private partnerships, and tower

² See American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (ARRA).

³ See ARRA, 123 Stat. at 118.

⁴ See ARRA § 6001(a).

companies.”⁵ The ARRA requires NTIA to determine whether it is in the public interest for entities other than those listed in Section 6001(e)(1)(A) and (B) to be eligible for grant awards.⁶ In making this determination, the WiMAX Forum recommends that NTIA apply a broad public interest standard so as to not unduly restrict the universe of entities eligible for grants.

Specifically, NTIA should apply a public interest standard similar to the one traditionally applied by the FCC in a variety of contexts. For example, in the FCC’s *Report and Order* relating to the 3650-3700 MHz band (3650 MHz band),⁷ the Commission decided not to impose any eligibility restrictions other than the statutory foreign ownership restrictions.⁸ By applying a similar public interest standard in the broadband stimulus context, all service providers will have an equal opportunity to compete for BTOP grants.

The WiMAX Forum believes that allowing a wide range of applicants to apply for BTOP grants will encourage new entry and investment in unserved and underserved areas, thus promoting economic opportunity. We further believe that such an approach to eligibility also would be consistent with the RUS broadband provisions in the ARRA. In

⁵ See Conference Report to accompany H.R. 1, Report. 111-16 (Conference Report), February 12, 2009 at 775.

⁶ See ARRA § 6001(e)(1)(C).

⁷ See *Wireless Operations in the 3650-3700 MHz Band*, ET Docket No. 04-151, Report & Order, 20 FCC Rcd 6502 (2005) (“*3650 MHz Order*”) at ¶38.

⁸ Sections 310(a) and 310(b) of the Communications Act, as modified by the Telecommunications Act of 1996, impose foreign ownership and citizenship requirements that restrict the issuance of licenses to certain applicants. 47 U.S.C. § 310(a), (b). We note that under the Act, an applicant requesting authorization for services other than broadcast, common carrier, aeronautical en route, or aeronautical fixed services would be subject to only section 310(a), which states “[t]he station license required under this Act shall not be granted to or held by any foreign government or the representative thereof.” 47 U.S.C. § 310(a).

short, the public interest is best served by allowing for-profit entities to compete for broadband funding, since these entities are often best equipped to deploy broadband infrastructure most cost-effectively and expeditiously to unserved and underserved areas and to meet the broadband needs of public safety agencies and other groups targeted for assistance by the ARRA.⁹

On a related note, NTIA and the FCC are tasked with defining “broadband service.” The Conference Report states that Conferees intend for the NTIA to consider the technical differences between wireless and wireline networks, and the actual speeds delivered to the subscriber under a variety of circumstances.¹⁰ Thus, the adoption of one universal “broadband” transmission speed for all technologies would ill serve the needs of many unserved and underserved Americans and be contrary to Congressional intent.

In addition, the Agencies must carefully craft its definitions of “unserved” and “underserved” to ensure that the varying demographics and needs of targeted areas are taken into account. In particular, the Agencies should ascertain whether an area is served by next-generation, high-speed broadband and, if so, if adoption rates for existing services are sufficient. Similarly, many “unserved” and “underserved” Americans reside in areas served by only one broadband provider. Promoting additional competition in these areas would foster the emergence of a competitive market environment for services and the associated consumer benefits of lower prices, improved broadband speeds and

⁹ The ARRA instructs NTIA to require grant applicants to “provide a detailed explanation of how any [BTOP funds] will be used ... in an efficient and expeditious manner.” ARRA § 6001(e)(1) (C)(3). The ARRA also instructs NTIA to seek assurances that grant recipients will “substantially complete projects supported by [BTOP funds] in accordance with project timelines, not to exceed 2 years following an award.” ARRA § 6001(d)(3).

¹⁰ See Conference Report. 111-16 at 776.

increased penetration rates. Nor should the definitions of “unserved” and “underserved” be construed so narrowly as to leave behind pockets of Americans that reside in the “digital divide” where existing broadband services are unobtainable due to factors such as affordability, lack of computer literacy, or personal vulnerability because of age, unemployment or poverty.

The Agencies also should be cognizant of the differences in capabilities between fixed and mobile broadband and ensure that the needs of unserved or underserved areas are met on both accounts. In particular, public safety, health, education and energy efficiency are dependent on applications and services that can only be supported by “fourth generation” mobile networks’ coverage and capabilities. In sum, the Agencies should deem those areas “unserved” or “underserved” that do not have access to high-quality, affordable broadband services that offer the mix of capabilities that satisfy their needs.

III. TECHNOLOGY NEUTRALITY AND GRANT CRITERIA

NTIA should ensure that the limited broadband stimulus funds are spent wisely and award grants to eligible entities in a technology neutral manner. There is a wide range of wireline and wireless broadband technologies, and the choice of the appropriate one for each particular implementation should be determined by the broadband needs of a particular unserved or underserved area. As the Conference Report states: “The Conferees ... intend that the NTIA select grant recipients that it judges will best meet the broadband access needs of the area to be served, whether by a wireless provider, a wireline provider, or any provider offering to construct last-mile, middle-mile, long haul

facilities.”¹¹ Consistent with this intent, the Agencies should choose the best grant application for the target area, and refrain from giving direct or indirect preference to any particular technology.

Indeed, Congress recognized that different factors are likely to be weighted differently by each area depending on its broadband needs. Thus, the Agencies should not fixate on wired/wireless, speed, mobility or any other single factor in reviewing grant applications. Rather, pursuant to the ARRA, the Agencies should consider which entity is best able to serve the areas’ broadband objectives in the most “efficient and expeditious manner”¹² and “whether an application ... will ... increase the affordability of, and subscribership to, service to the greatest population of users in the area.”¹³ Successful grant recipients’ programs should represent the best mix of capabilities, cost, and price advantages including speed, mobility/nomadcity, low service and subscription price, low equipment price (via low cost embedded technology and/or laptop/device bundling program), interoperable equipment, size of service footprint, open access, and other societal goals (e.g., schools, libraries, healthcare, public safety). The successful grant recipient should demonstrate that it will generate the highest impact in terms of consumer benefits by increasing broadband availability and subscribership “to the greatest population of users in the area.” Subscribership (or uptake) is an objective measurement of a broadband program – and thus the public’s return on its investment.

¹¹ Conference Report at 774.

¹² See ARRA § 6001(e)(1)(C)(3).

¹³ ARRA § 6001(h)(2)(A).

The Agencies should also provide grants for competitive “middle mile” backhaul links that would be used to connect broadband service providers’ networks to the Internet backbone (or in the case of mobile broadband providers, to their own backbone data network or mobile switching center, and in turn to the Internet backbone) in unserved or underserved areas . In many areas of the U.S., there is at most a single source of middle-mile backhaul available. As a result, the cost for such backhaul – which is essential for any broadband service deployment -- is expensive and the affordable deployment of broadband to consumers is severely hindered. Successful middle-mile backhaul grant proposals should demonstrate that they will provide the best mix of service “to the greatest population of users in an area” based on speed, capacity, non-discriminatory policies and price.

Finally, the Agencies should welcome and weigh favorably applications that seek to address *both* broadband deployment and adoption for an unserved or underserved area. Connected Nation reports that 34% of rural residents say that the lack of a computer is the reason that they do not subscribe to broadband.¹⁴ As Congress recognized in explicitly setting aside at least \$250M for sustainable broadband adoption and at least \$200M for public computer center capacity, broadband adoption and PC ownership are critical to bridging the digital divide in our country. Indeed, availability of broadband service amounts to nothing without consumer ownership of laptops, PCs, and other broadband devices to attach to the network. Consumers in unserved and underserved areas deserve the same broadband opportunities as the rest of America.

¹⁴ See Connected Nation, *Consumer’s Insights to America’s Broadband Challenge*, at 5, 11 (2008), available at <http://www.nga.org/Files/pdf/0812BROADBANDCHALLENGE.PDF> (last visited Apr. 3, 2009).

IV. CREATING INCENTIVES FOR BROADBAND INVESTMENT

The ARRA requires that applicants demonstrate that their proposals would not have been implemented during the grant period without Federal assistance.¹⁵ An applicant should be able to make this demonstration by certifying that the project for which funding is sought would not have been implemented during the grant period without Federal assistance. Requiring that an applicant make the requisite demonstration by filing long-range capital plans, financial statements, or other documentary evidence would unduly complicate the application process and delay the stimulus effects of the programs.

¹⁵ See ARRA § 6001(e)(3).

V. CONCLUSION

The WiMAX Forum applauds the Agencies and the FCC for their efforts to spur the growth of broadband services and the jobs those services will provide under the ARRA. We are confident that wireless services will be a cornerstone to accelerating broadband deployment and adoption in unserved and underserved areas and ensuring that strategic institutions that are likely to create jobs or provide significant public benefits have broadband connections. To maximize the impact of stimulus funding, the Agencies should allow for-profit entities to compete for grant awards, award grants in a cost-effective and technology neutral manner targeted to most increase actual subscribership, and create conditions conducive to broadband investment.

Respectfully Submitted
WiMAX Forum

/s/ Tim Hewitt

April 13, 2009

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