

**Before the
DEPARTMENTS OF COMMERCE AND AGRICULTURE
Washington, D.C.**

National Telecommunications and Information Administration)
Rural Utilities Service)
American Recovery and Reinvestment Act of 2009 Broadband Initiatives)

Docket No. 090309298-9229-01

COMMENTS OF MOTOROLA, INC.

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I. INTRODUCTION AND SUMMARY

Motorola, Inc. (“Motorola”) respectfully submits these comments in response to the Joint Request for Information (“Joint Request”) by the National Telecommunications and Information Administration, U.S. Department of Commerce (“NTIA”), and the Rural Utilities Service, U.S. Department of Agriculture (“RUS”).¹ The Joint Request seeks information on a variety of topics to assist NTIA and RUS in implementing the broadband funding provisions of the American Recovery and Reinvestment Act of 2009 (“ARRA” or “Recovery Act”).

Motorola applauds NTIA and RUS for giving interested parties this opportunity to participate in the Recovery Act implementation process. As a global communications leader focused on broadband access solutions for consumers, government and public safety first responders, commercial and industrial enterprises, and commercial operators, Motorola is uniquely situated to address many of the topics about which NTIA and RUS have requested information.

¹ See *Joint Request for Information and Notice of Public Meetings*, 74 Fed. Reg. 10716 (March 12, 2009).

The broadband funding provisions of the Recovery Act give the United States an important opportunity to further promote broadband deployment and adoption. But in order to take full advantage of this opportunity, both NTIA and RUS should take the following steps to maximize the ability of all citizens to benefit from the more than \$7 billion in funds that Congress has appropriated for broadband initiatives. First, NTIA should find it in the public interest that for-profit entities be eligible for grant awards under the Broadband Technologies Opportunities Program (“BTOP”). In addition, consistent with the plain language of the Act, NTIA must award such grants in a technologically neutral manner, which requires that NTIA refrain from giving preference – either directly or indirectly – to any particular technology.

Second, NTIA and RUS should define “broadband” and “unserved” consistently with existing definitions of those terms. Specifically, NTIA should adopt a definition of “broadband” based on the same framework that the Federal Communications Commission (“FCC”) has adopted and should utilize the same general definition of “unserved” that is in place at RUS and in states such as California with experience in implementing broadband initiatives. Taking this approach would ensure consistency across regulatory regimes and would allow NTIA to rely upon other expert agencies rather than having to “reinvent the wheel.”

Third, in order to ensure that the goals of the Recovery Act are met, NTIA should create conditions conducive to broadband deployment and resist imposing unnecessary requirements or regulations that would deter network investment. Specifically, NTIA and RUS should: (i) adopt a streamlined application process by which applicants can certify that threshold requirements have been met; (ii) define the nondiscrimination and interconnection obligations that will be contractual conditions of broadband grants consistent with the legal requirements that currently exist or may apply in the future; (iii) interpret expansively the type of equipment that can be

purchased with broadband grants; (iv) find that the Buy American provisions of the Recovery Act should not apply to the broadband grant programs; and (v) refrain from imposing one-sided contract terms on a grantee's contractors.

Finally, NTIA should award grants sufficient in size and scope so that all purposes of the BTOP grant program are met, including improving access to, and use of, broadband by public safety agencies and public and private utility infrastructure providers. Meeting the broadband needs of public safety agencies should be a critical component of BTOP and should not be lost to the other demands on the program.

II. NTIA SHOULD DETERMINE BY RULE THAT PERMITTING FOR-PROFIT ENTITIES TO RECEIVE BROADBAND FUNDING IS IN THE PUBLIC INTEREST AND MUST AWARD GRANTS TO SUCH ENTITIES IN A TECHNOLOGICALLY NEUTRAL MANNER.

A. Public Interest Standard

The Recovery Act requires NTIA to determine by rule whether it is in the public interest for certain entities other than those listed in the statute to receive grant support, including “broadband service or infrastructure providers.”² NTIA should make this determination by applying a broad public interest standard that makes for-profit entities eligible for grants and thereby expands the universe of eligible entities. By making for-profit entities eligible to receive broadband funding, NTIA can maximize the scope and impact of BTOP and administer the program in a manner consistent with RUS's broadband funding initiatives, which allow participation by for-profit entities. For-profit entities have substantial experience and expertise in broadband deployment and are well positioned to deliver broadband in a timely and efficient manner to the public in unserved and underserved areas. For example, Motorola and Scientel Wireless, LLC recently partnered to deploy a reliable broadband wireless system designed to

² ARRA § 6001(e)(1)(C).

meet the requirements of Lewis University in Romeoville, Illinois.³ For-profit entities also may play a valuable role in deploying public safety broadband systems that are designed to meet specific public safety requirements for high-speed data and video applications.

In weighing the public interest and to ensure that the purposes of the Recovery Act are met, NTIA should take a similar approach to the public interest standard traditionally applied by the FCC.⁴ The FCC's public interest standard hinges on promoting the "broad aims of the Communications Act," which include advancing competition, diversity, and advanced services deployment.⁵ The FCC's standard is not unduly restrictive, often balancing and weighing these elements in a flexible manner. For example, in evaluating competition, the FCC takes a broad view of the communications industry's future and looks to "enhance, rather than merely preserve" competition.⁶ In some instances, the FCC may overlook a particular factor if there is a general enhancement to the market of services available.⁷ Even when the FCC reviews or

³ See Motorola, Video Library, Government Case Studies for information about this project and other broadband deployments designed to meet users' needs at <http://business.motorola.com/hellomoto/government/video/index.html>.

⁴ Congress clearly contemplated that NTIA would look to the FCC for guidance in its oversight of BTOP. See *Conference Report to Accompany H.R. 1*, H. Rep. No. 111-16, at 776 (2009), available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_reports&docid=f:hr016.111.pdf.

⁵ *In re Applications of Cellco Partnership d/b/a Verizon Wireless and Rural Cellular Corporation*, Memorandum Opinion and Order and Declaratory Ruling, 23 FCC Rcd 12463, 12476-79, ¶¶ 26, 28 (2008), *In re Applications for Consent to the Assignment and/or Transfer of Control of Licenses*, Memorandum Opinion and Order, 21 FCC Rcd 8203, 8217-18, ¶¶ 22-24 (2006); *Stratos Global Corp.*, Memorandum Opinion and Order and Declaratory Ruling, 22 FCC Rcd 21328, 21338-40 ¶¶ 27-28 (2007).

⁶ See, e.g., *In re Applications of Cellco Partnership d/b/a Verizon Wireless and Rural Cellular Corporation*, 23 FCC Rcd at 12479-80, ¶¶ 28-29; see also *In re Federal-State Joint Board on Universal Service, Order*, 19 FCC Rcd. 22663, 22670, ¶ 16 (2004) (stating that Sprint satisfied its public interest showing for ETC designation by making commitments to ensure high quality service through its proposed non-rural service areas).

⁷ See *Application of PacifiCorp Holdings, Inc*, Memorandum Opinion and Order, 13 FCC Rcd 8891, 8893-84, ¶ 3 (1997) (finding public interest standard was met even though applicant had not established substantial pro-competitive efficiency benefits to consumers, but instead had

changes its own rules and regulations, its reassessment is based on the so-called “plain public interest standard,” which involves a flexible interpretation of what is “helpful” and “useful,” not “indispensable” or “essential,” to promoting the public interest.⁸ In the end, the FCC’s “broad aimed” public interest standard is a malleable assessment designed to enhance competition, diversity, and the market of services available to the public.

NTIA’s application of a similar approach to the public interest would maximize the benefits of BTOP and would better comport with the purposes of the program and the Recovery Act. Congress created BTOP primarily to bring broadband services to those areas of the country lacking access to those services today and to encourage the adoption and use of such services. Overlaid on the specific purposes of BTOP are the broader goals of the Recovery Act – to promote job creation and economic growth throughout the nation.

The public will be best served and the purposes and goals of the Recovery Act will be best achieved by a public interest calculus that allows for-profit entities with experience in deploying broadband infrastructure to be eligible for funding. For-profit entities are well equipped to deploy broadband infrastructure to unserved and underserved areas. They have substantial experience in deploying and operating broadband networks around the nation and have the technology, staff, and know-how to begin deployment promptly after BTOP grants are awarded. For-profit entities also are well situated to meet the broader aims of BTOP by creating jobs. The job creation by for-profit entities in the broadband sector involves high technology jobs, at high levels of pay and benefits.

indicated additional public interest benefits for some consumers, particularly rural consumers, through upgrades and enhanced telecommunications services).

⁸ *Prometheus Radio Project v. FCC*, 373 F.3d 372, 393-94 (3d Cir. 2004); 2006 *Quadrennial Regulatory Review*, Report and Order and Order on Reconsideration, 23 FCC Rcd. 2010, 2017, ¶ 10 (2008).

Finding that for-profit entities are eligible for broadband funding under BTOP would be consistent with Congressional intent.⁹ Such an approach would translate into the broadest universe of broadband proposals from the widest array of entities, and thereby enhance competition for BTOP grants so that NTIA can fund the best and most appropriate projects and ensure that the objectives of the program are met.¹⁰

B. Technological Neutrality

Consistent with the plain language of the Recovery Act, after determining that for-profit entities are eligible for broadband funding, NTIA must award grants to such entities in a technologically neutral manner.¹¹ As the FCC has concluded, technological neutrality “best facilitates” the “ubiquitous availability of broadband Internet access services to all Americans.”¹² Technological neutrality mandates that NTIA not unduly favor one technology over another so that competing broadband technologies are allowed “to succeed or fail in the marketplace on the basis of their merits and other market factors, and not primarily because of government regulation.”¹³ When faced with assigning spectrum in the L-Band, for example, the FCC created

⁹ See, e.g., H. Report No. 111-16, at 774 (“The Conferees ... intend that the NTIA will select grant recipients that it judges will best meet the broadband 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, or long haul facilities”).

¹⁰ See, e.g., *id.* at 775 (describing the reasons behind the “broad definition” of eligible entity used in section 6001(e) of ARRA).

¹¹ ARRA § 6001(e)(1)(C) (requiring that the purposes of BTOP be promoted in a “technologically neutral manner”).

¹² *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853, 14865, ¶ 17 (2005), *aff’d Time Warner Telecom v. FCC*, 507 F.3d 205 (3d Cir. 2007).

¹³ See, e.g., *Biennial Regulatory Review- Amendment of Parts 1, 22, 24, 27 and 90*, Third Report and Order, 23 FCC Rcd 5319, 5326, ¶ 13 (2008); *Matter of Biennial Regulatory Review - Amendment of Parts 1, 22, 24, 27, and 90*, Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 13900, 13926, ¶ 56 (2005).

an L-Band sharing plan in order to assign spectrum in way that refrained “from giving a preference to a specific technology.”¹⁴ Similarly, when fixing policies for licensing in the 2500-2690 MHz band, the Commission refused to restrict the band to a particular technology, which furthered its goal of making “the spectrum as flexible as possible” in order to permit “licensees and the marketplace to determine which technologies should be utilized.”¹⁵

Technological neutrality is particularly critical with respect to broadband because of the multiple technologies that are commercially available. Several wireline broadband options are available to deliver broadband service to customers, including coaxial cable networks, DSL systems, and fiber-optic networks. Wireless broadband solutions also vary considerably, and certain wireless options are particularly well suited to bringing broadband to locations where traditional wireline systems may be too costly.¹⁶ Each technology is geared toward providing optimal service in differing circumstances, and the appropriate technology choice for each particular implementation should be left to the service provider or grant applicant.

Motorola is a perfect example of the diversity of technology in the broadband marketplace. Motorola is a global leader in wireline and wireless broadband communications

¹⁴ *Review of the Spectrum Sharing Plan*, Fourth Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 13356, 13377, ¶ 46 (2004).

¹⁵ *Amendment of Parts 1, 21, 73, 74 and 101*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165, 14216, ¶¶ 132-33 (2004).

¹⁶ Wireless solutions can be grouped into two broad categories: those that operate on licensed spectrum and those that operate on unlicensed spectrum. Each offers different benefits. Unlicensed solutions often offer a more cost-effective and faster way to initiate service, as no licensing process is required, but these options do not enjoy protection from interference from other unlicensed devices. Licensed spectrum provides interference protection within the licensed service area, but requires the time and expense of acquiring spectrum rights. Motorola has used unlicensed frequencies to deploy cost-effective solutions, particularly in areas with rough terrain. See Motorola, White Paper: Exploding the Myth that Unlicensed Spectrum Means Unreliable Service: An examination of how a growing number of operators are designing reliability into broadband networks using unlicensed frequencies, *available at* <http://www.motorola.com/Business/US-EN/Document+Library/White+Papers?pager.offset=0>.

technology development and is at the forefront of the convergence of fixed and mobile broadband Internet. Motorola leads the industry in deployments of 4G technology such as WiMAX and the development of other 4G technologies such as Long Term Evolution (LTE) and Gigabit Passive Optical Network (GPON). Its wireless broadband portfolio also includes CDMA, GSM UMTS, Point-to-Point, Point-to-Multipoint, Mesh, Wireless LAN solutions, and Motorola also offers wireline broadband solutions including next-generation HFC, CMTS and FTTx solutions, fiber-rich and xDSL networks, cable voice and data consumer premises equipment. Motorola's various solutions are readily deployable and already in use. For example, a rural telephone company in southeast Iowa uses Motorola's Point to Point and Point to Multipoint Canopy® solution to extend its existing DSL network wirelessly to reach remotely located customers. Today, that company serves 3,500 rural customers over 200 square miles. These solutions provide the ability to reach and connect people wherever they live or work and to deliver information—data, video and voice—at high speeds in real time and provide reliable broadband coverage under virtually any conditions, such as low-, medium- or high-density environments; open, obstructed and even non-line-of-sight situations; and indoor, perimeter and outdoor locations.

In order to satisfy Congress's mandate that grants be administered in a technologically neutral manner, any rules adopted or conditions imposed by NTIA on grantees must "neither unfairly disadvantage nor advantage one provider over another, and neither unfairly favor nor disfavor one technology over another."¹⁷ Such an approach would allow providers and applicants to decide which broadband technology best meets the needs of their customers or

¹⁷ *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd 8776, 8801, ¶ 47 (1997).

constituents, rather than having their technology choices artificially skewed by broadband grant requirements.¹⁸

III. NTIA AND RUS SHOULD ADOPT DEFINITIONS OF “BROADBAND” AND “UNSERVED” THAT ARE CONSISTENT WITH DEFINITIONS THAT HAVE BEEN ADOPTED AND CURRENTLY ARE USED BY OTHER EXPERT AGENCIES.

A. Broadband

Congress recognized the expertise of the FCC on broadband matters, which should serve as a guide in NTIA’s and RUS’s implementation of the broadband grant programs.¹⁹ In particular, both NTIA and RUS should generally adopt the FCC’s definition of “basic broadband tier 1” by defining “broadband” as service that offers, in either the provider-to-consumer (downstream) or the consumer-to-provider (upstream) directions, a speed (in technical terms, “bandwidth”) in excess of 768 kilobits per second (kbps) in the fastest direction of service.²⁰

¹⁸ While Motorola fully supports a technologically neutral approach, in the case of public safety wide area broadband network(s) to be deployed in the 700 MHz band, NTIA should require that any such deployment funded by BTOP is consistent with interoperability and technology standards established in the ongoing FCC rulemaking proceeding. *See Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, Third Further Notice of Proposed Rulemaking, WT Docket No. 06-150, PS Docket No. 06-229, FCC 08-230 (2008).

¹⁹ *See* H. Report No. 111-16, at 776 (stating that NTIA should “coordinate its understanding of [the term broadband] with the FCC, so that NTIA may benefit from the FCC’s considerable expertise in these matters”).

²⁰ *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriberhip Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscriberhip*, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC Rcd 9691, ¶ 20 n.66 (2008). The FCC’s definition of “basic broadband tier 1” includes an upper limit of 1.5 mbps in the faster direction. This upper limit may be appropriate for reporting purposes but is unnecessary in defining “broadband” for purposes of broadband grants.

RUS's existing rules define "broadband" as a service with minimum data rate transmission of 200 kbps both upstream and downstream. 7 C.F.R. § 1739.3. This definition, which RUS adopted in 2005, is consistent with the FCC's historical view of broadband service.²¹ But that view has since evolved, and the FCC currently considers 200 kbps service as only "first generation data."²²

For purposes of the broadband grant programs, NTIA and RUS should adopt the same basic definition of "broadband" currently utilized by the FCC, which requires service that offers target speeds of at least 768 kbps in either the downstream or upstream direction. This approach would ensure consistency between the agencies and facilitate both the reporting and monitoring of broadband deployment by NTIA, RUS, and the FCC.

However, flexibility is required with any data speed standard. The FCC consistently has recognized the difficulty of measuring the actual speed delivered to consumers through a broadband network.²³ The broadband speeds actually experienced by a consumer can be affected by numerous factors beyond the control of the broadband provider, including the wiring in the

²¹ Federal Register: March 4, 2005 (Volume 70, Number 42) Page 10595-10596; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Report, 14 FCC Rcd 2398, ¶ 20 (1999); see also *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable And Timely Fashion, and Possible Steps To Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Third Report, 17 FCC Rcd 2844, ¶¶ 8-9 (2002).

²² *Broadband Data Order*, 23 FCC Rcd 9691, ¶ 20.

²³ See, e.g., *Local Competition and Broadband Reporting*, Report and Order, 19 FCC Rcd 22340, ¶ 27 (2004) (declining to require the reporting of actual broadband speeds because "[t]he record of this proceeding does not identify a methodology or practice that currently could be applied, consistently and by all types of broadband filers, to measure the information rates actually observed by end users"); see also *Broadband Data Order*, 23 FCC Rcd 9691, ¶ 36 (observing that "factors beyond the control of service providers may compromise" their ability to measure and report actual broadband speeds delivered to a consumer).

person's home and the equipment being used; the applications in use at any given time; and server performance related to the activities being conducted by the end-user. Similarly, each different type of broadband network faces technological challenges in measuring broadband speed delivered to consumers in a holistic manner. Wireless networks speeds (particularly in mobile networks) can fluctuate based on the distance a user is from the wireless base station, the power of the device accessing the network, signal interference, and other factors. Wireline and wireless network speeds can be impacted by the level of upstream and downstream traffic on the network at a given time. Therefore, NTIA and RUS should clarify that a minimum speed threshold of 768 kbps in the faster direction is a flexible standard that will accommodate the various factors that affect the actual speeds experienced by consumers.²⁴

B. Unserved

An area should be defined as “unserved” where “broadband service”: (1) is not being provided to residential customers in the applicant’s proposed service area, and no entity has committed to providing broadband service during the grant program (*i.e.*, September 30, 2010); (2) is not being provided in the applicant’s proposed service area at rates comparable to those of similar services in neighboring urban and suburban areas; or (3) consists only of satellite service.

This definition generally embodies the approach currently followed by RUS in defining an “unserved” area for purposes of its existing broadband infrastructure loan program. *See, e.g.*, 7 C.F.R. § 1738.11(b). It also is consistent with the definition of “unserved” utilized by states such as California that currently are implementing broadband deployment initiatives. For

²⁴ NTIA and RUS also should recognize that data rates for public safety systems may necessarily vary from this target rate. Public safety operations normally require guaranteed higher levels of reliability and greater coverage than those that apply to broadband service to the general public. Since there is a tradeoff among these three factors – that is, guaranteed reliability, data rates, and coverage – greater flexibility will be needed in any data rates applicable to grants for public safety broadband initiatives.

example, the California Advanced Services Fund program defines an unserved area as “an area that is not served by any form of facilities-based broadband, or where Internet connectivity is available only through dial-up service or satellite.”²⁵

IV. NTIA AND RUS SHOULD CREATE PROPER INCENTIVES FOR BROADBAND INVESTMENT BY REFRAINING FROM IMPOSING ONEROUS REQUIREMENTS ON GRANTEES THAT WOULD FRUSTRATE THE BROADER PURPOSES OF THE RECOVERY ACT.

In keeping with the general purpose of the stimulus package, NTIA and RUS should promote broadband deployment by creating incentives for investment in broadband networks. The establishment of onerous regulatory requirements as a condition to receiving a grant or the imposition of unduly restrictive definitions of the equipment eligible for grant awards would run counter to this effort.

A. Application Process

There are a variety of requirements that an applicant will be expected to meet in order to obtain broadband funding. For example, under BTOP, an applicant must demonstrate that its project would not have been implemented during the grant period without Federal assistance.²⁶

Similarly, an applicant must demonstrate that the area it proposes to serve is either “unserved” or

²⁵ *Approval of the California Advanced Services Fund (CASF) Application Requirements and Scoring Criteria for Awarding CASF Funds*, Resolution T-17143, at 6 (June 12, 2008). That an any area may be “unserved” despite the presence of satellite broadband service is not meant to suggest that satellite providers should be ineligible for broadband grants from either NTIA or RUS; rather it recognizes the reality that satellite broadband service is nearly ubiquitous but may nevertheless not meet consumers’ broadband needs. As satellite technology continues to evolve, satellite providers may be able to offer dynamic broadband service that would be particularly well suited for certain remote rural areas, and Congress was clear that satellite providers should be considered entities eligible for receiving a broadband grant, provided they otherwise meet applicable grant requirements. *See* H. Rep. No. 111-15, at 775 (“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 ... satellite carriers ...”).

²⁶ *See* ARRA § 6001(e)(3).

“underserved,” however those terms may be defined. NTIA and RUS should allow an applicant to make these requisite demonstrations by submitting appropriating certifications rather than requiring the filing of voluminous documentary evidence. Such a streamlined application process is consistent with the FCC’s competitive bidding procedures specifically and federal procurement practice generally.²⁷

Allowing applicants to certify rather than to “prove” that they satisfy the particular requirements for funding would facilitate the review process by not unduly burdening applicants or unnecessarily delaying the flow of funding. Applicant certifications would provide NTIA and RUS with the requisite information necessary to act upon a particular application. At the same time, NTIA and RUS would retain the full authority to pursue enforcement action if necessary, thus giving applicants no incentive to certify falsely.

B. Nondiscrimination And Interconnection Obligations

The Recovery Act 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

²⁷ Under the FCC’s competitive bidding rules, FCC Form 175, or the auction “short form application” requires that applicants certify as to their qualifications to bid on FCC licenses. *See* 47 C.F.R. § 1.2105. The FCC makes clear that “[s]ubmission of false certifications to the Commission may result in penalties, including monetary forfeitures, license forfeitures, ineligibility to participate in future auctions, and/or criminal prosecution.” *See, e.g., Auction of Advanced Wireless Servs. Licenses Scheduled for Jun. 29, 2006*, Notice and Filing Requirements, FCC 06-47, (rel. Apr. 12, 2006). Similarly, Standard Form 424D for Construction Programs and Standard Form 424B for Non-Construction Programs used as part of the federal procurement process contain a variety of certifications that an applicant must provide in order to obtain federal funding. *See generally* <http://apply07.grants.gov/apply/FormLinks?family=15>.

broadband policy statement.”²⁸ NTIA should define the nondiscrimination and network interconnection obligations that will be contractual conditions of broadband grants consistent with the legal requirements that currently exist or that the Commission may establish in the future.

The existing regulatory framework will adequately ensure that the purposes of the ARRA are met without creating new regulatory burdens that will deter broadband investment. Under Title II of the Communications Act, common carriers are prohibited from engaging in unreasonable discrimination, and an interconnection obligation exists for all telecommunications carriers.²⁹ Additionally, the FCC’s *Broadband Policy Statement* – which applies to broadband Internet access service providers – sets forth principles that “preserve and promote the vibrant and open character of the Internet.”³⁰

The existing framework has been tested and is working. The FCC has required that carriers interconnect in order to facilitate the use of broadband applications such as VoIP and has taken action to prevent conduct by network providers that runs afoul of the *Broadband Policy Statement*.³¹ To the extent the FCC modifies its interconnection and nondiscrimination

²⁸ ARRA § 6001(j); see *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, 20 FCC Rcd 14986 (2005) (“*Broadband Policy Statement*”).

²⁹ See 47 U.S.C. §§ 202(a), 251(c).

³⁰ *Broadband Policy Statement* ¶ 5. The *Broadband Policy Statement* outlines the following four principles: 1) consumers are entitled to access the lawful Internet content of their choice; 2) consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement; 3) consumers are entitled to connect their choice of legal devices that do not harm the network; and 4) consumers are entitled to competition among network providers, application and service, and content providers. All of these principles are subject to reasonable network management practices.

³¹ See *Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection under Section 251 of the Communications Act of*

obligations in the future, compliance with those modified obligations could be made an ongoing condition to a grant award.

In addition to being unnecessary, the implementation of new interconnection and nondiscrimination obligations by NTIA as part of its grant program would be counterproductive. First, doing so would create regulatory uncertainty and likely deter much needed broadband investment. Second, the establishment of new interconnection and nondiscrimination obligations for NTIA grantees would result in disparate regulation of similarly situated providers; broadband providers receiving an NTIA grant would be regulated differently from broadband providers that obtain a grant from RUS or that elect to forgo NTIA or RUS funding altogether. Third, the establishment of new interconnection and nondiscrimination obligations would require that NTIA make complicated determinations about which grantees should be subject to such obligations in the first place, since not every eligible entity is a network provider that should be required to “interconnect” (*e.g.*, a municipality deploying broadband to provide broadband data for internal purposes) or that should be prohibited from “discriminating” (*e.g.*, a public safety agency that prioritizes communications between first responders).³²

1934, as Amended, to Provide Telecommunications Service to VoIP Providers, Memorandum Opinion and Order, 22 FCC Rcd 3513 (2007) (finding that wholesale VoIP providers are entitled to interconnect with local exchange carriers); see also *Madison River Communications, LLC and Affiliated Companies*, 20 FCC Rcd 4295 (2005) (halting provider’s practice of blocking users’ access to VoIP); *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd 13028 (2008) (finding that Comcast’s practices do not constitute “reasonable network management”) *appeal pending Comcast Corp. v. FCC*, No. 08-1291 (D.C. Cir. filed Sep. 4, 2008).

³² For example, cities such as Plano, Texas have implemented mesh network systems that enable broadband services shared with other city services beyond public safety, including wireless meter reading for utilities, traffic control, mobile office for city service workers, and ad hoc networking. The key for public safety is to have control over the prioritization of access to the shared network; yet their doing so may constitute “discrimination.”

Finally, the establishment of new interconnection and nondiscrimination obligations for NTIA grantees would place NTIA in the position of having to adjudicate the disputes that are almost certain to arise concerning whether whatever obligations NTIA establishes have been met. NTIA is not an adjudicatory agency, and therefore it may lack the expertise to make such determinations. For example, if a grantee invests in routers and electronics to prioritize video packets for an IPTV service or a telemedicine offering for its customers, NTIA may be called upon to determine whether doing constitutes “discrimination.” This would require NTIA to decide whether the video bits associated with IPTV should be treated the same as the data associated with a download of an episode of *Lost* or a streaming news video, or whether the blood sugar results from a glucose meter test administered remotely and transmitted to a doctor via a wireless broadband connection should be treated the same as a copy of written lab results sent via e-mail to a diabetes patient or a news article about diabetes downloaded from webmd.com. These types of legal, technical, and policy issues are best resolved, if at all, by the FCC, not NTIA.

C. Eligible Equipment.

Section 6001(g) of the Recovery Act authorizes NTIA to award grants to “acquire equipment, instrumentation, network capability, hardware and software, digital network technology, and infrastructure for broadband services” and “construct and deploy broadband service related infrastructure.”³³ These provisions should be interpreted expansively to maximize the depth and breadth of broadband projects that NTIA can consider in the application process. For example, funding should be made available to support the cost of backhaul transport to the Internet backbone. Backhaul costs are estimated to be 25 percent or more of

³³ ARRA § 6001(g)(1)-(2).

rural telephone operators' operational costs.³⁴ Funding support for backhaul would improve broadband service to unserved and underserved rural areas. The same is true for tower site acquisition and tower construction costs, which can be a significant hurdle in deploying broadband service in rural areas and which should be subject to stimulus funding.

Additionally, funding should be made available for dual purpose equipment, including, but not limited to, fiber transmitters, line amplifiers, distribution amplifiers, and cable head end upgrades. For example, allowing a rural cable operator to receive a grant to upgrade its cable head end in a bandwidth constrained network would enable the spectrum needed to offer broadband where it is not already available or create additional spectrum that will allow increased broadband speeds. With cable head end upgrades, rural cable operators could provide both video and broadband services. Cable operators should not be disqualified from receiving a grant from NTIA because they seek funding for equipment that may also be useful in providing cable service. A broad interpretation of eligible equipment will encourage the most innovative proposals to bring broadband to unserved and underserved areas.³⁵

NTIA also should allow eligible public and private utility infrastructure providers to apply for NTIA funds in conjunction with Department of Energy funds for Smart Grid AMI

³⁴ John Rose, president of the Organization for the Promotion and Advancement of Small Telecommunications Companies and Eric Peterson, Executive Director of the Rural Cellular Association both commented on the importance of support for backhaul to rural operators during the "Rural and Unserved Areas" panel discussion at the American Recovery and Reinvestment Act of 2009 Broadband Initiative March 19, 2009 Public Meeting.

³⁵ TR Daily, April 2, 2009 (quoting Rep. Rick Boucher, chairman of the House communications, technology, and the Internet subcommittee, who urged members of the cable television industry to be "very aggressive" in applying for broadband funding from RUS and NTIA which would enable "small cable TV systems - some of them serving communities of no more than 100 residents - to upgrade their networks to be able to provide cable modem broadband service and bring linking to Internet points of presence 20 or more miles away").

LAN Projects that utilize a wireless broadband access and backhaul wide area network. NTIA funds could be used to allow the same networks supporting Smart Grid projects to also provide broadband service to unserved or underserved areas.

D. Buy American Requirements.

Section 1605 of the Recovery Act – the so-called “Buy American” provision – states that none of the funds appropriated under the Act may be used for the “construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.” These requirements may be waived: (i) when applying the provision would be inconsistent with the public interest; (ii) if the iron, steel and relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or (iii) the inclusion of U.S.-produced iron, steel or manufactured goods will increase the cost of the overall project by more than 25 percent.

The Buy American provision should not be construed to apply to the broadband funding programs administered by RUS and NTIA. By its plain terms, the Buy American provision applies to construction material -- “iron,” “steel,” or a “manufactured good” – used in a construction project. *See, e.g.*, 48 C.F.R. § 22.401 (2008) (“*Construction, alteration, or repair* means all types of work done by laborers and mechanics employed by the construction contractor or construction subcontractor”); 74 Fed. Reg. 14623, 14626 (March 31, 2009). As the Department of Defense (“DOD”), General Services Administration (“GSA”), and National Aeronautics and Space Administration (“NASA”) recently noted in adopting an interim rule amending the Federal Acquisition Regulations (“FAR”) to implement the Recovery Act, the Buy American provision “is expected to stimulate the economy by increasing and maintaining jobs in the United States in the steel, iron, and manufactured construction materials industries” *Id.*

According to the DOD, GSA, and NASA, the interim rule would only impact an entity seeking “to use non-U.S. iron, steel, and other manufactured goods in *a construction project* in the United States.” *Id.* at 14625 (emphasis added).³⁶

Here, the types of projects eligible for funding from NTIA and RUS involve the deployment of broadband technology. For example, NTIA is authorized to award grants for the acquisition of “equipment, instrumentation, networking capability, hardware and software, digital network technology, and infrastructure for broadband services” and to “facilitate access to broadband service by low-income, unemployed, aged, and otherwise vulnerable populations” Recovery Act, Section 6001(g). Such broadband projects do not involve “iron,” “steel,” or “manufactured goods,” and thus the Buy American provision does not apply to the NTIA and RUS broadband funding programs.³⁷

Significantly, broadband has been carved out of previous Buy American requirements. To illustrate, FAR provides a Buy American exception for information technology that is a commercial item. *See* 48 C.F.R. § 25.103(e) Further, the FAR defines “information technology”

³⁶ On April 3, 2009, the Office of Management and Budget (“OMB”) issued “Updated Implementing Guidance” (the “Guidance”) that includes proposed regulations (adding part 176 to Title 2 of the CFR) that provide “interim final guidance” to Federal agencies with respect to financial assistance (namely, grants, cooperative agreements and loans) under the ARRA. These proposed regulations concerning the Buy American provision mirror in large part the interim rule issued by DOD, GSA, and NASA.

³⁷ Although RUS historically has applied Buy American requirements to its loan programs, those requirements do not apply to grants. *See, e.g.,* 7 C.F.R. § 1753.6(e) (stating that “[a]ll materials and equipment financed with *loan funds* are subject to the 'Buy American' provision” of the Rural Electrification Act of 1936, as amended) (emphasis added); 7 U.S.C. § 901, note (“In *making loans* pursuant to this title and pursuant to the Rural Electrification Act of 1936, the Secretary of Agriculture shall require that, to the extent practicable and the cost of which is not unreasonable, the borrower agree to use in connection with the expenditure of such funds only such unmanufactured articles, materials, and supplies, as have been mined or produced in the United States ...”) (emphasis added).

broadly to include “equipment, or interconnected system(s) or subsystem(s) of equipment, that is used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the agency.” *See* 48 C.F.R. § 2.101.

Attempting to shoehorn broadband technology into the Buy American provision of the Recovery Act would conflict with the broader purposes of the broadband funding programs. For example, the Recovery Act directs NTIA and RUS to award funding in order to increase broadband deployment to unserved and underserved areas and to do so in a prompt and expeditious manner. *See, e.g.*, Section 6001(b)(1) & (2). In addition, the broadband grant program administered by NTIA is intended to improve access to, and the use of, broadband services by public safety agencies. Section 6001(b)(5). Subjecting broadband technology to the Buy American provision would undoubtedly delay and possibly jeopardize the ability to accomplish these priorities.

Even assuming the Buy American provision in the Recovery Act applied to the NTIA and RUS broadband funding programs, NTIA and RUS should waive these requirements. Indeed, under the recent OMB Guidance, NTIA and RUS are authorized to “make a determination regarding the inapplicability of [the Buy American provision] to a particular case or to a category of cases.”³⁸ Such a determination or waiver is appropriate here because much of the broadband technology -- particularly electronic components such as integrated circuits -- necessary to increase broadband deployment is not readily available from domestic sources. Because domestic supply is not readily available, the domestic procurement requirement will greatly slow the process, thereby preventing rural populations, underserved and vulnerable populations, as

³⁸ OMB Guidance at 139 (proposed rule 2 C.F.R. § 176.100(a)).

well as public safety agencies from obtaining efficient and effective access to broadband.

Accordingly, applying the Buy American provision in this context is inconsistent with the public interest, and a waiver or determination of inapplicability would be appropriate.

E. Contract Terms.

In connection with its existing loan programs, RUS requires contractors that engineer, furnish, install, or test equipment, materials, or software on behalf of loan recipients to execute various contracts. *See, e.g.*, RUS Form 397 – Special Equipment Contract (including installation); Addendum to RUS Form 397 – Software License Agreement; RUS Form 398 – Special Equipment Contract (not including installation); and RUS Form 773 – Miscellaneous Construction Work and Maintenance Services Contract). Many of these contracts contain one-sided terms and conditions that, while maybe reasonably necessary to protect RUS’s interest in ensuring repayment of a loan, are ill-suited and unnecessary in connection with the broadband grant programs.

For example, RUS Form 397 contains a provision that allows a loan recipient to deduct from amounts owed to a contractor “liquidated damages” for delays in completing a project. While timely completion of broadband projects is important and while contracting parties are free to negotiate liquidated damage provisions, there is no reason for a federal agency to dictate such contract terms in the context of a grant, particularly when they do not inure to the benefit of the Federal government. The same is true for provisions in RUS Form 397 that dictate payment terms, warranty terms, and the terms and conditions of software licenses.

Once a grant has been awarded, it becomes the responsibility of the grantee to ensure that the project is implemented consistent with the terms of the grant, including ensuring that the project is “substantially complete” within two years from the award of the grant. If the grantee fails to do or engages in misconduct, either NTIA or RUS can take appropriate action against the

grantee, including “deobligat[ing] awards to grantees that demonstrate an insufficient level of performance, or wasteful or fraudulent spending” Section 6001(i)(4). The broad oversight and enforcement authority vested in NTIA and RUS obviates the need for either agency to impose one-sided contract terms on a grantee’s contractors. The grantee will have ample incentive to negotiate mutually beneficially terms that adequately protect the grantee’s interests without unfairly disadvantaging its contractors.

V. **NTIA AND RUS SHOULD ENSURE THAT PUBLIC SAFETY AGENCIES AND UTILITY INFRASTRUCTURE PROVIDERS BENEFIT FROM THE BROADBAND FUNDING PROGRAMS.**

One of the purposes of the NTIA grant program is to “improve access to, and use of, broadband service by public safety agencies.” There is no higher priority for government than ensuring the safety and welfare of its citizens. In the case of NTIA, the public safety goals of the Recovery Act can be met by awarding grants sufficient in size and scope to meet the broadband needs of public safety agencies.

Two critical components necessary for providing state of the art broadband capabilities designed to meet the needs of public safety agencies are spectrum and funding. Congress and the FCC have taken steps to provide at least a portion of the spectrum required to meet public safety needs. For localized broadband coverage, the Commission allocated 50 MHz of spectrum in the 4.9 GHz band. For wider area coverage where spectrum in lower bands is needed, a total of 20 MHz of spectrum has been designated in the 700 MHz band for broadband service, with half of that spectrum licensed to a non-profit entity, the Public Safety Spectrum Trust (“PSST”), and the other half earmarked for some commercial provider(s) yet to be determined to fund and deploy the system. However, the second critical component – sufficient funding – remains elusive. The FCC attempted to take on the funding challenge of providing a nationwide broadband interoperable network for public safety by adopting the Public/Private Partnership

structure, which had the laudable and attractive goal of providing state of the art broadband service to public safety on a purpose built network that would fully meet public safety's requirements for enhanced reliability and coverage.³⁹ However, the commercial realities of trying to provide these public safety enhancements solely through a commercially viable network have been unsuccessful to date and modifications to the approach, including deployment by public safety agencies directly, are under discussion.

The Recovery Act provides a vital funding source by which public safety agencies can successfully supplement their mission critical voice networks with broadband enabled applications. Broadband enables public safety users to have access to full motion video, multimedia, remote camera viewing, software downloads, video archiving, internet/intranet access, high resolution images, full office applications in the mobile environment and many other uses to be defined by and designed for public safety users. Broadband technology offers a whole new level of mobile and portable data and video communications capabilities for the first responder community.

The Los Angeles Police Department, for example, installed a localized broadband mesh network in Jordan Downs, a high crime housing complex. This broadband solution includes applications that: allow officers in moving vehicles or at the central station to:

- monitor video from any camera on the network;
- remotely pan and zoom cameras;
- share video taken from their own vehicle surveillance equipment with officers in backup vehicles or at the station;
- provide access to video feeds for fire units responding to calls in Jordan Downs;

³⁹ *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15289, ¶¶ 391-559 (2007).

- scan license plates from cars and get immediate information without station involvement; and
- provide parallel equipment capability on unlicensed spectrum that can be used to offer broadband connections to the public, once management provisions are in place to do so.

To cover larger jurisdictional areas such as counties, regions and states, public safety agencies will need wider area broadband networks, *e.g.*, utilizing the 700 MHz broadband spectrum. The challenge for public safety agencies is obtaining the necessary funding to build such broadband networks that meet their higher level of requirements in terms of coverage, priority access, robustness, reliability, availability, survivability and performance. NTIA can help public safety agencies meet this challenge by ensuring that sufficient amounts of funding are made available for their use. The FCC currently has under consideration a rulemaking to ensure that public safety broadband deployments in the 700 MHz band are made as part of a nationwide interoperable framework. Accordingly, funding for 700 MHz broadband deployments for public safety should be consistent with such a framework.

VI. CONCLUSION

The ARRA presents NTIA and RUS with an historic opportunity to advance broadband in the United States, to promote investment in broadband networks and equipment, and to create jobs. For this opportunity to be fully realized, however, NTIA and RUS should implement the ARRA consistent with Motorola's recommendations described above.

Respectfully submitted,

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