Before the
Federal Communications Commission
Washington, D.C. 20554

In the matter of	)	
	)	
Facilitating the Provision of Spectrum-Based	)	
Services to Rural Areas and Promoting	)	WT Docket No. 02-381
Opportunities for Rural Telephone Companies	)	
To Provide Spectrum-Based Services	)	

NOTICE OF INQUIRY

Adopted: December 11, 2002 **Released: December 20, 2002**

Comment Date: February 3, 2003
Reply Comment Date: February 18, 2003

By the Commission: Chairman Powell, Commissioners Abernathy, Copps, and Martin issuing separate statements; Commissioner Adelstein not participating.

I. INTRODUCTION

1. This Notice of Inquiry ("NOI") seeks comment on the effectiveness of our current regulatory tools in facilitating the delivery of spectrum-based services to rural areas. Specifically, we ask whether and how the Commission could modify its policies to promote the further development and deployment of such services to rural areas, pursuant to Section 309(j) of the Communications Act of 1934, as amended ("Communications Act").[1] In addition, we request comment on the extent to which rural telephone companies[2] ("rural telcos") and other entities seeking to serve rural areas have opportunities to acquire spectrum and provide spectrum-based services, pursuant to Sections 309(j)(3) and 309(j)(4) of the Communications Act.[3] This NOI fulfills a

[1] 47 U.S.C. § 309(j). Section 309(j)(3)(A) provides that the Commission's design of systems for licensing through competitive bidding "shall seek to promote…the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in *rural areas*, without administrative or judicial delays." 47 U.S.C. § 309(j)(3)(A) (emphasis added). The Communications Act does not define "rural areas," nor has the Commission adopted a specific definition of "rural areas" for purposes of implementing Section 309(j). *See* discussion of "rural areas" *infra* at ¶ 15.

[2] The term "rural telephone company" is defined in 47 U.S.C. § 153(37) and in 47 C.F.R. §§ 1.2110(c)(4) and 51.5. Since passage of the Telecommunications Act of 1996, the Commission generally has used the statutory definition to determine which local exchange carriers can be classified as rural telephone companies. That definition uses a range of standards, including the population of a jurisdiction and the number of access lines serving communities of various sizes.

[3] 47 U.S.C. §§ 309(j)(3) and (4). Section 309(j)(3)(B) provides, in pertinent part, that the Commission's design of systems for licensing through competitive bidding should avoid the result of an "excessive concentration of licenses…by disseminating licenses among a wide variety of applicants including…rural telephone companies…." 47 U.S.C. § 309(j)(3)(B). Section 309(j)(4)(D), provides, in pertinent part, that the Commission, in prescribing regulations pursuant to Section 309(j)(3) shall "ensure that…rural telephone companies…are given the opportunity to participate in the provision (continued....)

Commission commitment to develop a record on these matters to determine the extent to which the Commission has achieved these statutory goals.[4] Based on the record developed in this proceeding, we will determine whether it would be appropriate to revise existing policies or adopt new policies to promote more extensive provision of spectrum-based services to rural areas and the acquisition of spectrum by rural telcos. While satellite services may, in the future, play a critical role in bringing telecommunications services to rural America, this NOI addresses issues related only to the provision of terrestrial wireless service to rural areas, not the provision of general telecommunications services to rural areas.

II. BACKGROUND

2. The Omnibus Budget Reconciliation Act of 1993 added Section 309(j) to the Communications Act, authorizing, but not requiring, the Commission to award licenses for use of the electromagnetic spectrum through competitive bidding where mutually exclusive applications are accepted for filing.[5] In 1997, Congress expanded the Commission's auction authority by requiring it to award mutually exclusive license applications for initial applications or construction permits by competitive bidding unless certain specific exemptions apply.[6] Section 309(j) requires the Commission to promote various objectives in designing a system of competitive bidding. A number of those objectives focus on the provision of spectrum-based services to rural areas, and three provisions mention providing the opportunity to rural telcos to acquire spectrum and provide spectrum-based services. For example, Section 309(j)(3)(A) requires the Commission to encourage the development and rapid deployment of new technologies, products, and services for the benefit of the public, "including those residing in rural areas."[7] Section 309(j)(3)(B) directs the Commission to disseminate spectrum licenses among a wide variety of applicants, including "rural telephone companies."[8] Section 309(j)(4)(D) requires the Commission to ensure that rural telcos are given the opportunity to acquire spectrum and provide spectrum-based services.[9] In addition to the rural service objectives mandated by Section 309(j), Congress directed the Commission to pursue other broader public interest goals in designing a system of competitive bidding. Specifically, Section 309(j)(3) requires the Commission to promote efficient and intensive use of the spectrum, encourage economic opportunity and competition, and recover for the public a portion of the value of the public

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of spectrum-based services, and, for such purposes, consider the use of tax certificates, bidding preferences, and other procedures." 47 U.S.C. § 309(j)(4)(D).

[4] In the *27 MHz Report and Order*, the Commission stated that it planned to initiate an NOI before the end of the 2002 calendar year that would address the following topics: "(a) the nature of spectrum supply and demand and the services currently provided and planned in rural areas, (b) the effectiveness of our current regulatory tools (including partitioning and disaggregation, bidding credits, auction service area policies, build out requirements) in facilitating the delivery of services to these areas, and (c) how the Commission could modify its policies to fulfill its statutory mandate." Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands*, Report and Order*, 17 FCC Rcd 9980, 9991, ¶ 18 (2002) ("*27 MHz Report and Order*").

[5] Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, § 6002, 107 Stat. 312, 387-397 ("1993 Budget Act") (codified at 47 U.S.C. § 309(j) (1993)).

[6] Section 309(j), as amended by the Balanced Budget Act of 1997, provides that in cases of mutually exclusive applications for initial licenses or construction permits, all spectrum is auctionable except licenses or construction permits for (1) public safety services; (2) digital television service given to existing broadcasters to replace their analog license; and (3) non-commercial educational or public broadcast stations. Balanced Budget Act of 1997, P.L. 105-33, § 3002, 111 Stat. 251, 258-265 (codified as amended at 47 U.S.C. § 309(j) (1997)).

[7] 47 U.S.C. § 309(j)(3)(A).

[8] 47 U.S.C. § 309(j)(3)(B).

[9] 47 U.S.C. § 309(j)(4)(D). *See also* 47 U.S.C. §§ 309(j)(4)(B)-(C) (relating to the promotion of service to rural areas and the provision of economic opportunities for rural telephone companies).

spectrum.[10]

3. In an effort to fulfill the rural service objectives set forth in Section 309(j), the Commission has adopted a number of policies intended, among other things, to encourage the provision of spectrum-based services to rural areas and the participation of rural telcos in the competitive bidding for spectrum licenses. Specifically, these policies include: (1) the availability of small business bidding credits; (2) the designation of various sizes of geographic service areas for spectrum licenses; (3) the opportunity to obtain licenses through service area partitioning and spectrum disaggregation arrangements with existing licensees; and (4) the adoption of construction benchmark performance requirements.[11] In addition, apart from its obligation under Section 309(j), the Commission has expressed support for the provision of telecommunications services to tribal lands.[12] The Commission also established the Rural Radiotelephone Service, which may operate in the paired 152/158 and 454/459 MHz bands, and Basic Exchange Telephone Radio Systems ("BETRS"), which may operate in those same bands as well as on 10 channel blocks in the 816-820/861-865 MHz bands, primarily to facilitate the provision of basic telephone service to remote and sparsely populated areas where wireline service is not feasible.[13]

4. In 1994, the Commission adopted small business bidding credits to encourage broad participation in spectrum auctions.[14] A bidding credit is a payment discount on a winning bid determined at the conclusion of the bidding process.[15] Small business bidding credits are available to businesses — including rural telcos — whose gross revenues do not exceed a specified threshold. These bidding credits are intended to encourage participation in the competitive bidding process by entities that otherwise might have difficulty gaining access to capital.[16] Through the use of small business bidding credits, the Commission has sought to promote the participation of small businesses, rural telcos, and women- and minority-owned firms (collectively referred to as "designated entities"), thereby addressing Congress's mandate to ensure diversity in the ownership of spectrum licenses.[17] The Commission determines on a service-specific basis whether bidding credits will be

[10] 47 U.S.C. §§ 309(j)(3)(B)-(D).

[11] Generally, after notice and comment, we have addressed these policies in adopting service rules for particular spectrum bands. *See, e.g.*, In the Matter of Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands, WT Docket No. 02-353, *Notice of Proposed Rulemaking*, FCC 02-305 (rel. Nov. 22, 2002). We encourage rural interests to participate in these service-specific rulemaking proceedings.

[12] *See* In the Matter of Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes, *Policy Statement*, FCC 00-207, 16 FCC Rcd 4078 (2000); 47 C.F.R. § 1.2110(f)(3).

[13] Rural Radiotelephone Service is a fixed radio service that uses wireless technology to provide radio telecommunications services, in particular, basic telephone service, to subscribers in rural areas. *See* 47 C.F.R. § 22.99. In the mid-1980s, the Commission established BETRS in the Rural Radiotelephone Service to serve rural, mountainous, and sparsely populated areas that might not otherwise receive basic telephone service. Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems, *Second Report and Order*, 12 FCC Rcd 2732, 2753, ¶ 34 (1997). BETRS is a fixed radio service where a multiplexed, digital radio link is used as the last segment of the local loop to provide wireless telephone service to subscribers in remote areas. BETRS may be licensed only to local exchange carriers or others that have been certified to provide basic exchange telephone service in the area involved.

[14] Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Second Report and Order*, 9 FCC Rcd 2348, 2350, ¶ 6 (1994) ("We will use these preferences to promote the participation of small businesses…when we adopt service-specific competitive bidding rules, thereby meeting Congress's mandate by ensuring diversity in the ownership and management of telecommunications facilities, which in turn will increase the diversity of service offerings and better meet the needs of more consumers.") ("*Competitive Bidding Second Report and Order*").

[15] *Id.* at 2391, ¶ 241.

[16] *Id.* at 2391, ¶ 242.

[17] *Id.* at 2350, ¶ 6.

offered, the eligibility criteria for receiving a bidding credit, and the amount of the bidding credit.[18]

5. However, in the *Part 1 Fifth Report and Order,* the Commission declined to adopt a bidding credit specifically for rural telcos.[19] Rather, the Commission determined to continue to make small business bidding credits available to entities, including rural telcos, that meet the requisite revenue criteria.[20] In 2000, the Commission also began offering a tribal land bidding credit, the size of which is determined by the amount of tribal land area reached by the service provider.[21] All telcos, including rural operators, that fulfill the requisite criteria may obtain a tribal land bidding credit.[22]

6. Recent statistics indicate that rural telcos have actively participated in spectrum auctions and have had some success in winning licenses. A significant portion of rural telcos that have participated in spectrum auctions have received small business bidding credits. For instance, an examination of the 29 auctions completed by the Commission as of September 18, 2002, that offered small business bidding credits, reveals that 84 percent of the qualified bidders that identified themselves as rural telcos and 79 percent of all qualified bidders were eligible to receive a small business bidding credit.[23] In the Commission's most recent auction for licenses in the lower 700 MHz Band, 89 percent of qualified bidders that identified themselves as rural telcos won licenses. In addition, 77 percent of all winning rural telco bidders in that auction received a bidding credit.[24]

7. In addition to bidding credits, another way in which the Commission has sought to enhance rural telco participation in spectrum auctions is by adopting service areas of varying sizes. Although in many services we offer licenses that cover geographic areas of only one size, in a number of services, we license areas of varying sizes, ranging from small to large, in order to attract a diverse group of prospective bidders.[25] Larger

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[18] 47 C.F.R. § 1.2110(f).

[19] Amendment of Part 1 of the Commission's Rules ─ Competitive Bidding Procedures, *Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making*, 15 FCC Rcd 15293, 15320-321, ¶¶ 51-52 (2000) ("*Part 1 Fifth Report and Order"). See also Melcher v. Federal Communications Comm'n*, 134 F.3d 1143, 1155 (D.C. Cir. 1998) ("[S]ection 309(j)(4)(D) does not mandate that the rural LECs receive preferential treatment in the form of 'tax certificates bidding preferences, and other procedures'; it just instructs the FCC to 'consider' the possibility.").

[20] *Part 1 Fifth Report and Order,* 15 FCC Rcd at 15320-321, ¶ 52.

[21] 47 C.F.R. § 1.2110(f)(3). *See also* Extending Wireless Telecommunications Services to Tribal Lands*, Report and Order and Further Notice of Proposed Rule Making*, 15 FCC Rcd 11794 (2000) (*"Tribal Lands Report and Order"*).

[22] In some instances, the competitive bidding rules for services have offered both a small business bidding credit and a tribal lands bidding credit. Within specified limits, these credits are cumulative if the applicant independently qualifies for each type of bidding credit. *Tribal Lands Report and Order*, 15 FCC Rcd at 11805, ¶ 30.

[23] These calculations are based on data available at the Commission's Auction Form 175 database, *available at* http://auctionfiling.fcc.gov/form175/index.htm (last visited Sept. 18, 2002) ("*Form 175 Database*").

[24] These figures include two rural telcos whose eligibility for a bidding credit is contingent upon the disposition of their pending requests for a waiver of the Commission's rules. Auction No. 44, Revised Qualified Bidder Notification, 125 Qualified Bidders, *Public Notice*, DA 02-1933, n. 12, (rel. Aug. 7, 2002).

[25] For example, the Commission designed the competitive bidding for 800 MHz Specialized Mobile Radio ("SMR") using Economic Areas ("EA") rather than the larger Major Trading Area ("MTA") because the Commission "believe[d] use of these smaller geographic areas ultimately will result in a more diverse group of prospective bidders…." Amendment of Part 90 of the Commission's Rules to Facilitate Further Development of SMR Systems in the 800 MHz Frequency Band, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rule Making*, 11 FCC Rcd 1463, 1483-84, ¶ 23 (1996). The Commission "conclude[d] that such an outcome…furthers the public interest because it would result in the dissemination of EA licenses among a wide variety of applicants as anticipated by Section 309(j) of the Communications Act." *Id.*

entities, for instance, may seek to acquire licenses that cover whole regions of the country, while other entities, such as rural telcos, may be interested in obtaining licenses to serve only particular rural areas. After seeking comment, the Commission has varied the size of the geographic service area depending upon the nature of the service provided and the likely users. In services for which we have adopted one size of license area, such areas are usually larger than Rural Service Areas ("RSAs"). In determining the appropriate size of a license area, we seek to balance two competing concerns. On one hand, we seek to adopt service areas of a size that results in efficient and intensive use of spectrum resources.[26] On the other hand, we seek to adopt licensing areas that will permit the dissemination of licenses among a wide variety of applicants.[27] The smallest of these geographic service areas are RSAs and Metropolitan Statistical Areas ("MSAs"), of which there are 734 licenses comprising the United States and its territories. Adopting service rules that provide for licenses with small geographic areas allows bidders to target the precise areas they are interested in serving, rather than having to compete for expansive geographic areas that encompass smaller, sought-after areas.[28] The Commission has also licensed spectrum according to Economic Area Groupings ("EAGs"), which make up six licensing areas for the entire country. Some terrestrial wireless services, such as narrowband Personal Communications Services ("PCS") and 1670-1675 MHz, have geographic service areas that have nationwide coverage.[29] Other geographic service areas fall along a range of intermediate sizes between RSAs and nationwide service areas, *e.g.*, BTAs,[30] Economic Areas ("EAs"), and Major Economic Areas ("MEAs").[31]

8. The Commission has also adopted partitioning and disaggregation policies to enable service providers, including rural telcos, to acquire spectrum without bidding on licenses that may not be suited to their particular needs.[32] "Partitioning" is the assignment by a licensee of geographic portions of the license. "Disaggregation" is the assignment by a licensee of discrete portions or "blocks" of spectrum of the license.[33] Where permitted by our rules, licensees may partition or disaggregate any of their licensed spectrum to other entities.[34] Obtaining spectrum through partitioning or disaggregation, rather than competitive bidding, is often

[26] 47 C.F.R. § 309(j)(3)(D).

[27] 47 C.F.R. § 309(j)(3)(B), (4)(C).

[28] Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022 (2002).

[29] Narrowband PCS is also licensed on a regional basis. 47 C.F.R. § 24.102.

[30] Rand McNally & Company owns the copyright to the BTA Listings. *See* Rand McNally, 1992 Commercial Atlas and Marketing Guide at 36-39 (123rd ed. 1992).

[31] Summary of Completed Auctions, *available at* http://wireless.fcc.gov/auctions/ (denoting geographic service areas for each auction that has been conducted pursuant to 47 U.S.C. § 309(j)) (last visited Nov. 4, 2002).

[32] Partitioning and disaggregation is now permitted in the 218-219 MHz Service (47 C.F.R. § 95.823), 220 MHz Service (47 C.F.R. § 90.1019), 800 MHz (47 C.F.R. § 90.911) and 900 MHz (47 C.F.R. § 90.813) Specialized Mobile Service ("SMR"), 24 GHz Service (47 C.F.R. § 101.535), 39 GHz Service (47 C.F.R. § 101.56), Guard Band Manager's Spectrum in the 746-764 MHz and 776-794 MHz bands (47 C.F.R. § 27.605), Local Multipoint Distribution Service ("LMDS") (47 C.F.R. §101.1111), Location and Monitoring Service ("LMS") (47 C.F.R. § 90.365), Multiple Address Systems ("MAS") (47 C.F.R. §101.1323), Multipoint Distribution Service ("MDS") (47 C.F.R. § 21.931), Maritime Services (47 C.F.R. § 80.60), Paging and Radiotelephone Service (47 C.F.R. § 22.513), Cellular Radiotelephone Service (47 C.F.R. § 22.948), broadband Personal Communications Services ("PCS") (47 C.F.R. § 24.714), narrowband PCS (47 C.F.R. § 27.104), and the Wireless Communications Service ("WCS") (47 C.F.R. § 27.15).

[33] *See* Geographic Partitioning and Spectrum Disaggregation by Commercial Mobile Radio Services Licenses, WT Docket No. 96-148, *Memorandum Opinion and Order*, 15 FCC Rcd 8726, 8727, nn. 1-2; FCC Report to Congress on Spectrum Auctions, *Report*, 13 FCC Rcd 9601, 9627-9628 (1997) ("*FCC Auctions Report*").

[34] The rules for partition and disaggregation are promulgated on a service-specific basis. *Supra* n. 32. Each of these service-specific rules cross-reference the Commission's Part 1 competitive bidding rules regarding unjust enrichment in the context of partition and disaggregation. 47 C.F.R. § 1.2111(e).

appealing to service providers with limited financial resources, specific service area needs, or small bandwidth requirements because licenses offered at auction may be more costly, cover larger geographic areas, and have greater bandwidth than desired. For instance, the geographic service area of a license made available at auction may include both urban and rural areas. A rural telco interested in serving only a rural area may seek to obtain spectrum post-auction through partitioning or disagregation, rather than bid for a license covering an area that it does not intend to serve.[35] In this manner, our partitioning and disaggregation policies may help service providers, such as rural telcos, to obtain spectrum tailored to their specialized service area and financial needs.[36] The Commission's analysis of applications for geographic partition and spectrum disaggregation reveals that 13.5 percent of all assignees have voluntarily identified themselves as rural telcos.[37] Our analysis also demonstrates that 13.8 percent of all assignees (including rural and non-rural telcos) claim they are, or will be, serving rural areas.

9. The Commission has sought to enhance service to rural areas by requiring winning bidders of spectrum licensees to meet certain performance requirements. Section 309(j)(4)(B) of the Act specifically directs the Commission to prescribe such "performance requirements" to ensure prompt delivery of service to rural areas, to prevent stockpiling of spectrum, and to promote investment in and rapid deployment of new technologies and services.[38] Performance requirements include construction benchmarks.[39] Construction benchmarks typically require licensees to serve either a specific portion of the geographic service area or a specific percentage of the population in the geographic service area by a certain period of time.[40] In some

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[35] *See, e.g.*, Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, To Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, *Third Order on Reconsideration*, 13 FCC Rcd 4856, 4902, ¶ 103 (1998) ("[T]he Commission consistently has found that allowing licenses in other services to be geographically partitioned from larger service areas provides rural [local exchange carriers] with enhanced opportunity to participate in the provision of new services and is thus in the public interest."); Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Second Report and Order*, 12 FCC Rcd 19079, 19134, ¶ 156 (1997) ("SMR partitioning will…ensure the faster delivery of SMR service to rural areas."); Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Fifth Report and Order*, 9 FCC Rcd 5532, 5599, ¶ 153 (1994) ("We believe that the partitioning plan we are adopting will provide rural telephone companies with substantial capabilities to acquire licenses to provide broadband PCS in their rural telephone service areas, consistent with our statutory mandate.") ("*Competitive Bidding Fifth Report and Order*").

[36] We note that eligibility for partitioning and disaggregation is not limited to rural telcos as the recipient of partitioned licenses or disaggregated spectrum.

[37] This analysis includes applications for partition or disaggregation that were either pending before the Commission, granted by, or consented to, by the Commission, or consummated by the parties to the transaction. These statistics were derived from the review of 500 partitioning/disaggregation applications filed with the Commission between April 29, 1997 and September 18, 2002.

[38] 47 U.S.C. § 309(j)(4)(B).

[39] *Competitive Bidding Second Report and Order*, 9 FCC Rcd at 2386, ¶ 219.

[40] *See, e.g.,* 47 C.F.R. § 90.796(a) (nationwide licensees in the 220-222 MHz Service must construct a sufficient number of base stations to provide coverage to a composite area of at least 750,000 square kilometers or 37.5 percent of the United States population within five years of the initial license grant; within ten years of the initial license grant the licensee must provide coverage to a composite area of at least 1,150,000 square kilometers or 75 percent of the United States population). The Commission has granted waivers of the construction deadline to extend the time to meet construction benchmarks based upon the provision of services to rural areas. *See, e.g*., Minnesota PCS Limited Partnership, Request for Waiver and Extension of the Broadband PCS Construction Requirements, *Order*, 17 FCC Rcd 16371, 16374, ¶ 7 (WTB/CWD 2002) ([E]xtension…is warranted [because it will] bring service to rural and otherwise underserved areas."); Northstar Technology, LLC, Request for Waiver and Extension of the Broadband PCS Construction Requirements, *Order*, 17 FCC Rcd 10908, 10911, ¶ 7 (WTB/CWD 2002) ("Northstar's service to rural areas is a critical component to [this] grant of an extension, we do so on the condition that Northstar must, in addition to the 25 percent coverage benchmark, provide service

(continued....)

instances, the Commission has adopted a "substantial service" requirement as its construction requirement. Under this approach, licensees are required to provide "substantial service" to either a geographic service area or to the population within the geographic service area within a specific period of time. The Commission has defined "substantial service" as "service that is sound, favorable, and substantially above a level of mediocre service that would barely warrant renewal."[41] The "substantial service" requirement was established to assess meaningful service through a measure not based on population or geographic metrics.[42] Substantial service was established for circumstances where the Commission has determined that more flexible construction requirements rather than fixed benchmarks would more likely result in the efficient use of spectrum and the provision of service to rural, remote, and insular areas.[43] The Commission may consider such factors as whether a licensee's operations serve niche markets or focus on serving populations outside of areas served by other licensees.[44] The Commission has indicated that a "substantial service" construction requirement may help foster service to less densely populated areas.[45] Because this requirement can be met in a variety of ways, the Commission has stated that it will review substantial service showings on a case-by-case basis.[46] The Commission has rarely found that a commercial mobile radio service ("CMRS") carrier has failed to meet its performance requirements.

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to the portions of the BTAs that it has committed to serve in its request."); Monet Mobile Networks, Inc., Request for Waiver and Extension of the Broadband PCS Construction Requirements, *Order*, 17 FCC Rcd 6452, 6454, ¶ 5 (WTB/CWD 2002) ("[W]e find that an extension in this case will serve the public interest by meeting another statutory goal of performance requirements to ensure prompt delivery of service to rural areas. …. Furthermore…the fact that Monet intends to provide broadband services, and not traditional voice services, to these sparsely-populated areas furthers the Commission's goal of bringing advanced services to rural areas.").

[41] *See, e.g.,* 47 C.F.R. § 22.940(a)(1)(i) (Cellular Radiotelephone Service); 47 C.F.R. § 27.14(a) (Wireless Communications Services); and 47 C.F.R. § 101.1413(b) (Multichannel Video Distribution and Data Service).

[42] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Report and Order and Second Notice of Proposed Rule Making*, 12 FCC Rcd 18600, 18622-26, ¶¶ 39-50 (1997).

[43] *See, e.g.,* Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS"), *Report and Order*, 12 FCC Rcd 10785, 10843, ¶¶ 111-112 (1997) ("*WCS Report and Order*"); Amendment of the Commission's Rules to Establish New Personal Communications Services, *Memorandum and Order*, 9 FCC Rcd 4957, 5018-5020, ¶¶ 154-158 ("*PCS MO&O*").

[44] *See, e.g., WCS Report and Order,* 12 FCC at 10843, ¶ 112; Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, *Third Order on Reconsideration*, 11 FCC Rcd 1170, ¶ 2 (1995) ("The 'substantial service' showing is a mechanism designed for specialized users…. Two possible examples…which could warrant a showing of 'substantial service' are licensees who provide a 'niche service' to businesses or who focus on serving populations outside the areas currently served by incumbent licensees."); *PCS MO&O*, 9 FCC Rcd at 5018, ¶ 154 ("[W]e continue to believe that minimum construction requirements are necessary to ensure that PCS service is made available to as many communities as possible and that the spectrum is used effectively.").

[45] *See, e.g., PCS MO&O,* 9 FCC Rcd at 5019, ¶ 155 (1994) ("[T]hese relaxed construction requirements may increase the viability and value of some broadband licenses, especially those in less densely populated service areas."); Chasetel License Corp., Request for Extension of Broadband PCS Construction Requirements and Construction Notification for Call Sign KNLF468 in Middlesboro-Harlan, KY BTA, *Order*, 17 FCC Rcd 9351, 9355-56, ¶ 11 (WTB/CWD 2002) ("[T]he substantial service option was intended to encourage…licensees to serve unserved or underserved areas, including rural markets….") ("*Chasetel Order*"); Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Report and Order*, 15 FCC Rcd 5299, 5332, ¶ 76 (2000) ("*700 MHz Second Report and Order")* ("We conclude with respect to the 6 megahertz of spectrum to be licensed to Guard Band Managers that a substantial service requirement will be sufficient to act as a deterrent against anticompetitive warehousing and other abusive practices and to ensure prompt delivery of services to rural areas.").

[46] *See, e.g., Chasetel Order,* 17 FCC Rcd at 9354, n.25.

10. Another step the Commission has taken to encourage the provision of wireless services to rural areas is the retention, in RSAs, of the cellular cross-interest rule, which is designed to protect against the cellular incumbents developing cross interests that may create the incentive and ability to restrict the availability of services in those areas.[47] The cellular cross-interest rule limits the ability of parties to have attributable interests in cellular carriers on different channel blocks in a single geographic area.[48] In its recent reevaluation of this rule, the Commission determined that the cross-interest rule was no longer necessary in MSAs because the cellular duopoly conditions that prompted the rule's adoption no longer existed.[49] However, the Commission found that in RSAs competition to the incumbent cellular licensees was not as developed as in MSAs.[50] Accordingly, the Commission concluded that a combination of interests in cellular licensees serving RSAs would more likely result in a significant reduction in competition in these areas.[51] The Commission therefore decided to retain the cellular cross-interest rule in RSAs, subject to waiver of the rule based on certain conditions.[52] The Commission noted that retention of the cross-interest rule in RSAs does not preclude cellular carriers from obtaining PCS licenses in order to expand capacity or offer advanced services.[53]

III. REQUEST FOR COMMENT

11. Under Section 309(j), the Commission has a statutory mandate to promote the development and deployment of wireless technologies to rural areas and economic opportunities for rural telcos and other entities seeking to serve rural areas.[54] Indeed, as discussed above, the Commission has implemented a number of initiatives toward achieving those goals. We seek to better understand the nature of spectrum supply and demand and the services currently provided and planned to be offered in rural areas. We are also interested in developing a record on whether there are any discrepancies between rural and urban America in the availability, use and cost of wireless services. Approximately 80 percent of the U.S. population lives in metropolitan areas.[55] However, our society is increasingly mobile and, therefore, ubiquitous wireless service is essential, not only for those living in rural areas, but also for individuals whose business and leisure activities take them to all parts of the nation. Thus, it is in the larger public interest to promote seamless wireless service throughout the country. By this NOI, we seek to broaden our understanding of the effect our current policies have had on the availability of spectrum-based services in rural America and on access to spectrum licenses by rural telcos and other entities seeking to serve rural areas. Further, we are interested in exploring whether it is appropriate to adopt new approaches in these areas. We therefore seek comment on the effectiveness of our current regulatory tools in facilitating the delivery of spectrum-based services to areas that traditionally may have been underserved by

[47] 2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, *Report and Order*, WT Docket No. 01-14, 16 FCC Rcd 22668, 22708-710, ¶¶ 88-92 (2001) ("*2000 Biennial Review*"). Petition for Reconsideration, filed by Cingular Wireless, LLC on February 13, 2002; Petition for Reconsideration, filed jointly by Dobson Communications Corporation, Western Wireless Corporation, and Rural Cellular Corporation on February 13, 2002.

[48] 47 C.F.R. § 22.942.

[49] *2000 Biennial Review,* 16 FCC Rcd at 22671, ¶ 7 and 22707-710, ¶¶ 84-92.

[50] *Id*. at 22708, ¶ 88.

[51] *Id*. at 22708-709, ¶¶ 88-89.

[52] *Id*. at 22708, ¶ 88.

[53] *Id*. at 22709, ¶ 90.

[54] 47 C.F.R. § 309(j)(3)(A) and (B).

[55] Calculation based on data provided in the statistical table "Metropolitan and Nonmetropolitan Area Population by State: 1980 to 2000," U.S. Dept. of Commerce, Bureau of the Census, *Statistical Abstract of the United States: 2001* at 30 (2002), *available at* http://www.census.gov/prod/2002pubs/01statab/pop.pdf (last visited Nov. 4, 2002).

telecommunications providers and on our efforts to provide rural telcos with the opportunity to participate in spectrum auctions.[56] We also invite comment on ways in which the Commission could modify its policies to best fulfill these statutory goals.

12. At the outset, we request comment on the types of wireless services that are currently provided, and that are planned to be offered, in rural areas. We seek information on the availability of wireless services in rural areas and the providers of such services. We ask commenters to identify which service providers, in addition to rural telcos, are providing wireless services to rural populations. To the extent possible, we request that commenters provide particularized data on wireless coverage and provision of services to rural areas.[57] The more specific data we receive, the better able we will be to tailor our regulations to meet our rural service goals. We particularly seek comment from consumer groups, community groups, State Commissions, local governments and others about any geographic areas that lack adequate wireless coverage, have inadequate quality of service, or inequitable pricing. We also ask commenters to identify the obstacles to providing wireless service in rural areas. In particular, we ask commenters to address the economic viability of building out in rural areas. In what ways, if any, can the Commission modify its rules to promote build-out to rural regions? We also seek comment on whether we should maintain a web site that would include information that would be helpful to entities seeking to provide wireless services to rural areas. Such a web site, for instance, could have links to other sites that contain information about programs and financial incentives that are available to those seeking to serve rural populations. Should we maintain a database that would provide information to prospective service providers, including rural carriers, on the availability of spectrum for initial licensing or leasing? In addition to the specific issues identified in this NOI, we also invite comment on any other issues within the Commission's jurisdiction that may directly relate to the provision of wireless service in rural areas.

13. Apart from the rural service mandate set forth in Section 309(j), Congress also directed the Commission to pursue other public interest objectives in designing a system of competitive bidding, including the efficient and intensive use of the spectrum, the development and rapid deployment of new technologies and services, the promotion of competition, and the recovery for the public of a portion of the value of the spectrum.[58] In providing comment on how the Commission may best fulfill the rural objectives, we ask that commenters also address how any proposed suggestions would further, or impede, the Commission's achievement of the other public interest goals set forth in Section 309(j)(3).[59]

14. Finally, we recognize that issues involving spectrum leasing opportunities are of significant interest to rural telcos. They have expressed interest in gaining access to spectrum usage rights through secondary markets.[60] We plan to address these matters in our proceeding on secondary markets.[61]

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[56] We note that the National Telecommunications Cooperative Association ("NTCA") recently released the "NTCA 2002 Wireless Survey Report," which addresses issues related to the provision of wireless services by rural entities (rel. Oct. 2002). The survey reflects responses received by 30 percent of NTCA's membership, or 148 member companies out of a total of 494 member companies.

[57] *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Notice of Inquiry*, FCC 02-327 (rel. Dec. 13, 2002) ("*CMRS NOI*").

[58] 47 U.S.C. §§ 309(j)(3)(A)-(D).

[59] 47 U.S.C. § 309(j)(3).

[60] For instance, several rural telcos have filed comments in the *Secondary Markets Proceeding*. Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Notice of Proposed Rulemaking*, WT Docket No. 00-230, 15 FCC Rcd 24203 (2000) ("*Secondary Markets NPRM*"). *See, e.g.,* Rural Telecommunications Group Comments at 2-3, 10-36; National Telephone Cooperative Association Comments; Organization for the Promotion and Advancement of Small Telecommunications Companies Comments at 2-14; Blooston, Mordkovsky, Dickens, Duffy and Prendergast Comments at 2-10. *See also* Comments of Caressa Bennet, Counsel for the Rural Telecommunications

(continued....)

A. Definition of "Rural Areas"

15. As discussed above, Sections 309(j)(3) and 309(j)(4) direct the Commission to promote the development and deployment of spectrum-based services to "rural areas."[62] The statute, however, does not provide a definition of what constitutes a "rural area."[63] The federal government has multiple ways of defining "rural," reflecting the multiple purposes for which the definitions are used.[64] The Commission has used RSAs to define "rural" in certain instances.[65] In the *Seventh Report*, the Commission used three different proxy definitions of "rural" for purposes of analyzing the average number of competitors in rural versus non-rural counties.[66] We compared the number of competitors in 1) RSA counties versus MSA counties, 2) non-nodal EA counties versus nodal EA counties,[67] and 3) counties with population densities below 100 persons per square mile versus those with population densities above 100 persons per square mile.[68] We request comment on whether and how the Commission should define "rural area" for purposes of determining the extent to which the Commission has met its mandate under Section 309(j). In addition, we seek comment on whether we should adopt different definitions of what constitutes a "rural area" depending upon the regulatory initiative for which the definition is used. Commenters should identify the factors that the Commission should consider when defining "rural area." In addition, we are interested in compiling a comprehensive list of the number of telephone companies that meet the definition of "rural telephone company" as defined in 47 U.S.C. § 153(37). The identical definition is also included in 47 C.F.R. §§ 1.2110(c)(4) and 51.5. We ask that commenters provide data to assist us in this effort.

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Group, *Transcript of Secondary Market Forum*, at 26-27, 123-124 (May 31, 2000), *available at* http://www.fcc.gov/realaudio/tr053100.pdf (last visited Nov. 4, 2002).

[61] *Secondary Markets NPRM*. In addition, we note that rural interests have raised issues related to the controlling interest standard that the Commission adopted in the *Part 1 Fifth Report and Order,* 15 FCC Rcd at 15323-27, ¶¶ 58-67. In essence, they argue that application of this rule will inappropriately disqualify rural telco cooperative applicants from attaining small business bidding status and will frustrate the objectives of the Commission's small business bidding preference program and the mandates of Section 309(j). Because we will respond to petitions for reconsideration of the *Part 1 Fifth Report and Order* in a subsequent order, as part of the Part 1 rulemaking proceeding, we do not seek comment on, and will not address, these matters in this NOI.

[62] 47 U.S.C. §§ 309(j)(3), 309(j)(4).

[63] *CMRS NOI* at ¶¶ 41-43.

[64] *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Seventh Report*, 17 FCC Rcd 12985 at 13020-21 (2002) *("Seventh Report").*

[65] In the CMRS spectrum cap proceeding, the Commission designated RSAs as rural areas and stated, "[o]ther market designations used by the Commission for CMRS, such as [EAs], combine urbanized and rural areas, while MSAs and RSAs are defined expressly to distinguish between rural and urban areas." Biennial Regulatory Review, Spectrum Aggregation Limits for Wireless Telecommunications Carriers, *Report and Order*, 15 FCC Rcd 9219, 9256 at n. 203 (1999).

[66] *See Seventh Report*, 17 FCC Rcd at 13022-23.

[67] Each EA consists of one or more counties that are "Economic Nodes" and the surrounding counties that are economically related to it. An EA may have more than one economic node. The counties that are economic nodes are metropolitan areas or similar areas that serve as the EA's center(s) of economic activity. As a proxy for urban and rural geographic areas, we looked at counties which make up economic nodes, *i.e.*, nodal counties, versus those counties that do not make up economic nodes, *i.e.*, non-nodal counties. *See Seventh Report*, 17 FCC Rcd at 13022.

[68] *Id.* at 13022-23.

B. Bidding credits

16. As explained above, bidding credits are intended to foster broad participation in the competitive bidding process for licenses. A bidding credit reduces the amount of the winning bid paid for a license by a qualifying entity. The Commission requests comment on whether, and the extent to which, small business bidding credits have facilitated the participation of rural telcos in competitive bidding and the delivery of spectrum-based services to rural areas. Our research demonstrates that rural telcos often qualify as small businesses and are therefore eligible to receive small business bidding credits.[69] Is the availability of small business bidding credits effective in assisting rural telcos to gain access to spectrum? Is the availability of such credits helpful in promoting the provision of spectrum-based services to rural areas? Commenters should support their responses to these questions with data or other empirical information.[70] For instance, if commenters contend that small business bidding credits are not helpful in promoting rural telco participation in Commission auctions, commenters should provide data or statistics supporting that assertion. If empirical evidence demonstrates that small business bidding credits are not effective in facilitating the provision of wireless services to rural areas or the participation of rural telcos in competitive bidding, should the Commission adopt a bidding credit specifically for rural telcos or based on the provision of service to rural areas? For instance, should the Commission adopt a rural service bidding credit modeled after the tribal lands bidding credit? In responding to these questions, commenters should discuss why the use of small business bidding credits is or is not effective in creating opportunities for rural telcos or in spurring the provision of services to rural areas.

17. If the Commission were to adopt a bidding credit specifically for rural telcos, what criteria should it use to determine eligibility for the credit (if it is not based on financial size) and what should be the size of the credit? Is it appropriate, for instance, to adopt a bidding credit for all rural telcos irrespective of how large or well-financed these entities may be? When initially considering the adoption of a rural telco bidding credit in 1994, the Commission found that rural telcos do not *per se* have the same difficulty accessing capital as other groups, such as small businesses.[71] The Commission stated that the parties advocating the adoption of a rural telco credit had "failed to demonstrate a historical lack of access to capital that was the basis for according bidding credits to small businesses, minorities and women."[72] In subsequent decisions, the Commission has reiterated that large rural telcos do not appear to have barriers to capital formation similar to those faced by other designated entities.[73] In commenting on this issue, parties that advocate the adoption of a bidding credit specifically for rural telcos should address whether we should consider access to capital as a factor in determining whether to adopt such a bidding credit. We note that rural telcos may seek below-market rate lending through the Department of Agriculture's Rural Utilities Service ("RUS").[74] In addition, Section 6103 of the recently-enacted Farm Security and Rural Investment Act of 2002 provides loans and loan guarantees to construct, improve, and acquire facilities and equipment to provide broadband service to rural communities with

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[69] *Supra* at ¶ 6.

[70] *See also Melcher,* 134 F.3d at 1154 ("[Section 309(j)(4)(D)] insists only that rural telephone companies have 'the opportunity to participate in the provision of spectrum-based services'.... The meaning of 'opportunity' in the context of section 309(j)(4)(D) is necessarily ambiguous. [T]he term is capable of supporting a range of interpretations extending from…licensee guarantees [for] rural [telcos]…to a regime in which there are no guarantees ....").

[71] *See* Implementation of Section 309(j) of the Communications Act - Competitive Bidding, *Fifth Memorandum Opinion and Order*, 10 FCC Rcd 403, 457-458, ¶ 100 (1994) (*"Competitive Bidding Fifth MO&O").*

[72] *Id.*

[73] *See, e.g., Part 1 Fifth Report and Order*, 15 FCC Rcd at 15320-21, ¶ 52; *Paging Third Report and Order Reconsideration*, 14 FCC Rcd at 10091-92, ¶ 114 (1999); *Narrowband PCS Second Report and Order*, 15 FCC Rcd at 10476-77, ¶ 41 (2000); *24 GHz Report and Order*, 15 FCC Rcd at 16968-69, ¶ 81.

[74] *See* 7 C.F.R. §§ 1735.1-1735.101.

20,000 or fewer residents.[75] These financing options suggest that rural telcos may have greater ability than other designated entities to attract capital. We seek comment on what role these programs should play, if any, in our consideration of adopting an independent rural telco bidding credit.

C. Geographic Service Areas

18. The sizes of geographic service areas vary on a service-by-service basis depending upon such factors as the nature of the service and the likely users.[76] We seek comment on the extent to which the size of the geographic service area affects the ability of rural telcos to acquire spectrum licenses through competitive bidding. In addition, commenters should discuss whether, and in what ways, the size of the geographic service area affects the provision of wireless services to rural areas. Commenters should provide data to support their positions.

19. Does the size of the geographic service area affect the provision of wireless services to rural areas by entities other than rural telcos? Large license areas, for instance, may enable nationwide carriers to compete with local or regional carriers in providing service to rural areas.[77] Such large areas may also provide opportunities for new entrants to compete on a wide-area basis in an existing service. With regard to commercial mobile telephony specifically, there is considerable industry support for the notion that relatively large licenses are most efficient.[78] The original geographic scope of cellular, broadband PCS, and certain SMR licenses was small and, as a result, the licenses were assigned to a large number of entities. The predominant trend since then, however, has been for operators progressively to aggregate licenses and build large geographic footprints. The Commission has found that these footprint-expanding transfers and assignments result in important public benefits. Today, six providers approach nationwide status. However, less than 50 percent of the geographic area of the country is served by three or more carriers.[79] Given this evidence, are small license areas inefficient for licenses of spectrum suitable for provision of mobile voice and data service? And for such licenses, do the interests of consumers of rural service diverge from the interests of rural telcos that wish to supply such service? Alternatively, does the use of small geographic licensing areas stimulate competition in the provision of wireless services to rural populations? Does the adoption of smaller service areas enable rural telcos to compete more effectively in spectrum auctions? If rural telcos win licenses covering small geographic service areas, are they more likely to provide services to those areas than are other service providers? Is there evidence that smaller geographic areas will result in more rapid deployment of services? Are rural carriers better positioned to serve the needs of rural America than nationwide carriers? Reliance on nationwide licenses assumes that nationwide carriers and local carriers are equally well positioned to serve rural consumer needs. Is this correct? On the other hand, are rural populations better served by carriers that operate on a nationwide basis as opposed to local carriers? For example, are nationwide carriers better able to offer lower prices, better roaming capability, or more services due to economies of scale? If the adoption of smaller service areas for licenses does enhance the participation and success of rural telcos in competitive bidding and/or the provision of

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[75] Farm Security and Rural Investment Act of 2002, Pub. L. No. 107-171, 116 Stat. 134, 415-418 (2002), *available at* http://thomas.loc.gov/bss/d107/d107laws.html (last visited Nov. 4, 2002).

[76] *See, e.g.,* Amendments to Parts 1, 2, 27 and 90 of the Commission's Rules to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, *Report and Order*, 17 FCC Rcd 9980, 9989-92, ¶¶ 13-20 (2002) (1390-1392 MHz band is assigned by Major Economic Area, the paired 1392-1395 MHz and 1432-1435 MHz bands are assigned by Economic Area Groups, and the 1670-1675 MHz band is assigned on a single nationwide basis) ("*24 MHz Report and Order*").

[77] *See* Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *First Report and Order*, 15 FCC Rcd 476, 499, ¶ 55 (2000).

[78] *Id*.

[79] *Seventh Report*, 17 FCC Rcd at 13095, Appendix C: Table 5.

services to rural areas, should the Commission adopt varied-sized or small-sized geographic service areas for all auctionable services? Are there particular services that are more appropriate for licensing by smaller geographic areas? If smaller geographic service areas promote competition, service, and access to spectrum by rural telcos, what size service areas would be most effective to achieve these benefits? In addition, we seek comment on whether certain auction designs, such as combinatorial or "package" bidding, facilitate license configurations that are efficient and likely to foster the provision of wireless services to rural areas.

D. Partitioning and Disaggregation.

20. Partitioning and disaggregation policies and regulations are designed to facilitate more efficient and intensive use of the spectrum, including use by rural telcos to serve rural areas. In paragraph eight, above, we provide statistics regarding partition and disaggregation assignees that have identified themselves as rural telcos, and assignees that claim that they are or will be serving rural areas. However, because we do not require applicants to identify themselves as rural telcos when applying for licenses, we cannot with certainty determine the extent of transactions involving rural telcos based solely on our licensing records. Therefore, we seek comment on the extent to which rural telcos have received licenses through geographic partitioning and spectrum disaggregation. We are interested in learning whether, and in what ways, partitioning and disaggregation policies have been helpful in providing rural telcos with access to spectrum. We also ask for comment on whether, and to what extent, partitioning and disaggregation rules have enhanced the provision of services to rural areas. In responding to these questions, commenters should provide data or other empirical information to support their positions. We also solicit comment on whether partitioning and disaggregation policies enhance competition in the provision of wireless services to rural areas. If partitioning and disaggregation facilitate the provision of services to rural areas, do sufficient incentives exist for both winning bidders and prospective licensees to participate in the spectrum partitioning and disaggregation process? For instance, to what extent do the potential transaction costs involved in partitioning and disaggregation discourage licensees from pursuing such options? We note that some rural interests maintain that such transaction costs and other factors lead licensees to avoid pursuing partitioning and disaggregation agreements.[80] If sufficient incentives do not exist to encourage partitioning of service areas and disaggregation of spectrum, should the Commission adopt additional incentives to motivate parties to pursue these options? For example, should the Commission require that licensees disaggregate or partition under certain circumstances, such as when there is unused spectrum or unserved portions of geographic service areas?

E. Performance Requirements

21. Performance requirements, such as construction benchmarks, are intended to help ensure that licensees promptly provide service to potential subscribers. The type of construction benchmark the Commission adopts for a license may determine whether services are deployed expeditiously to rural areas. For instance, depending on the level at which it is set, a population-based requirement may be achievable by a licensee providing service only to the urban areas covered by its license. In contrast, a geography-based benchmark targets the delivery of services to a percentage of a geographic area, rather than to a percentage of the population in an area. Because population is only rarely distributed uniformly across a geographic area, the same percentage requirement under a geography-based standard may result in greater geographic area and population coverage than that percentage under a population-based requirement.

[80] *See, e.g.,* Testimony of Caressa Bennet, Counsel for the Rural Telecommunications Group, In the Matter of Secondary Market Forum, at 26 (transcript of May 31, 2000 Public Forum on Secondary Markets) (available at <http://www.fcc.gov/oet/smsi>); Comments of the Rural Telecommunications Group, In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, at 6 (filed Feb. 9, 2001).

22. We seek comment on whether and how construction benchmarks may be utilized to encourage licensees to deliver wireless services to rural populations. To what extent are our current construction benchmarks effective in ensuring that spectrum-based services are provided to rural areas? In what instances, and under what circumstances, should the Commission adopt a population-based, geography-based, or substantial service construction benchmark? For example, in licensing service areas that are predominantly rural, should the Commission adopt geography-based construction benchmarks? Are there other types of construction benchmarks that would better promote service to rural regions? For instance, should we adopt a separate construction benchmark applicable only to service areas that constitute rural areas? Alternatively, should we revise our current construction benchmarks to permit service providers to serve either smaller portions of the population or service area if they meet a second construction benchmark applicable to the rural portions of a licensee's market? If so, commenters should explain what construction benchmarks we should adopt for the rural portions of the service area? If, as suggested above, we were to require licensees to disaggregate or partition unused spectrum or unserved portions of geographic service areas, should the Commission adopt additional construction benchmarks to implement this requirement? If so, what penalties should the Commission impose on licensees for failure to timely meet such additional construction benchmarks? As noted above, the Commission has generally accepted certifications of CMRS carriers that they have met their construction benchmarks.[81] To what extent are our self-certification procedures an adequate means of ensuring compliance with our construction benchmark requirements?

23. In addition to employing varying types of construction benchmarks for auctioned licenses, the Commission has also utilized different models with respect to enforcing construction requirements. In the Cellular Radiotelephone Service, initial licensees are given five years to construct facilities and begin providing service to their market.[82] At the end of the initial five-year period the licensee is allowed to "keep what it builds" and the remaining portions of the market become available for licensing to other parties via the cellular "unserved area" licensing process.[83] In contrast, auctioned services such as broadband PCS provide for an "all or nothing" penalty for failing to meet the construction benchmarks, *i.e.,* if a licensee does not meet the five- or ten-year benchmark or make a showing of substantial service (where applicable) it forfeits the entire license and does not get to "keep what it builds."[84] With this past experience in mind, we seek comment on whether these models, a hybrid model, or some combination of targeted models, may be utilized to facilitate service in rural areas. We also seek comment on whether the Commission should adopt performance requirements other than construction benchmarks to encourage the provision of wireless services to rural areas.

24. For unserved areas in the Cellular Radiotelephone Service, should the Commission adopt a different approach to assigning spectrum usage rights? Specifically, should the Commission adopt a "commons" model, which allows unlimited numbers of unlicensed users to share frequencies, with usage rights that are governed by technical standards but with no right to protection from interference? In addition, should the Commission amend the application filing process for cellular unserved areas to further encourage service providers to operate in rural areas?[85] Furthermore, should the Commission apply the policy it has adopted with

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[81] *See supra* at ¶ 9.

[82] 47 C.F.R. § 22.947.

[83] 47 C.F.R. § 22.949. At the end of the five-year build-out period the licensee provides the Bureau with a map of all constructed facilities. All areas within the market that are not covered by those facilities are considered "unserved areas" and become available for re-licensing on a site-by-site basis. The incumbent licensee, neighboring licensees, or new entrants may then apply on a site-by-site basis to serve any and all portions of the unserved area. The Commission receives approximately 40 cellular unserved area applications each month.

[84] 47 C.F.R. § 24.203.

[85] 47 C.F.R. § 22.949. The unserved area licensing process begins with Phase I, which is a one-time, one-day window for all interested parties to file for licenses in the unserved portions of the market. After disposition of any Phase I

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respect to unserved areas in the Cellular Radiotelephone Service to other services to promote wireless service in rural areas, *i.e.,* allow licensees to continue to serve the areas they have built-out, but make available for licensing to other parties those portions of a market that are not being served by current licensees? With respect to our ownership rules for the Cellular Radiotelephone Service, we seek comment on whether and to what extent our retention of the cellular cross-interest rule for RSAs advances spectrum-based services to rural areas. Should the Commission amend this rule to further the provision of wireless services to rural areas?

25. Finally, it may be economically inefficient, and thus harmful to customers, to require for each wireless service the same number of competitors in urban and rural areas. This appears to be true, for example, with regard to mobile telephony. How should a performance requirement policy for rural areas address this issue? Economic theory predicts that where licensees are in competitive markets, and no market failures exist and transactions costs are sufficiently low, market forces will drive optimal decisions on what is built, where, and when. In that setting, build-out rules arguably would distort resource allocation, or at best be irrelevant. We ask parties to comment on the application of this economic theory to construction benchmarks that cover rural areas. In particular, for those services and rural markets where there is competition, how should we balance the putative efficiency harm of build-out rules against the potential equity benefit? Moreover, for those services and rural markets where there is a lack of competition, *e.g.,* as a result of small market size not being able to support multiple operators, is it possible that build-out rules would impose efficiency costs in the form of spending on excess capacity?

F. Band Manager Licensing

26. A band manager is a licensee that is specifically authorized to lease its licensed spectrum usage rights for use by third parties through private contractual agreements without having to seek prior Commission approval.[86] Band managers may make their licensed spectrum available to facilitate all types of spectrum use that are consistent with the technical restrictions adopted for the particular band and in accordance with certain requirements imposed on the leasing relationship.[87] The Commission has adopted band manager licensing for several bands.[88] The band manager may subdivide its spectrum in any manner it chooses and make it available to any third party, consistent with the frequency coordination and interference rules specified for the particular band.[89] Band managers are permitted to apportion spectrum based on both geographic area and frequency.[90] Such spectrum apportionment differs from traditional geographic partitioning and spectrum disaggregation because it does not involve the transfer or assignment of the band manager's licenses to other parties.[91] Band manager licensing is an innovative spectrum management approach that can enable parties to acquire spectrum more readily for varied uses.[92] The band manager option will also enable small businesses to acquire spectrum

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application(s), the cellular market proceeds to Phase II, in which carriers may file applications under a 30-day notice and cut-off filing window.

[86] *700 MHz Second Report and Order; 24 MHz Report and Order* (adopting band manager licensing in the paired 1392-1395 MHz and 1432-1435 MHz bands and the unpaired 1390-1392 MHz, 1670-1675 MHz, and 2385-2390 MHz bands).

[87] *See 700 MHz Second Report and Order,* 15 FCC Rcd at 5312, ¶ 27.

[88] *700 MHz Second Report and Order; 24 MHz Report and Order*. *See also* In the Matter of Access 220, LLC, Request for Waivers to Provide Band Management Services Utilizing Licenses in the 220-222 MHz Band, *Memorandum Opinion and Order*, 17 FCC Rcd 20464 (2002).

[89] *700 MHz Second Report and Order,* 15 FCC Rcd at 5312, ¶ 27.

[90] *Id.* at 5313, ¶ 28.

[91] *Id.*

[92] *Id.* at 5313, ¶ 30.

in amounts to serve particular geographic areas, and for periods of time, that better suit their unique characteristics and specialized communications needs.[93] We seek comment on whether rural telcos would be able to obtain more affordable access to spectrum through a band manager than by acquiring licenses directly at auction or through partitioning and disaggregation. We also seek comment on whether rural telcos would be more likely to obtain access to spectrum that is tailored to their particular needs from a band manager than by acquiring licenses in an auction or through partitioning and disaggregation. Comments should also discuss whether band manager licensing would promote service or enhance the quality of service to rural areas.

G. Technical and Operational Rules

27. The Commission has developed technical and operational rules throughout its spectrum-based services in order to facilitate efficient use of the radio spectrum while minimizing the potential for harmful interference among licensees.[94] We seek comment on the degree of flexibility that these regulations afford to providers of spectrum-based services in rural areas. Are there aspects of these rules that could be modified or made more flexible to encourage expanded service to rural areas while ensuring that services remain free of harmful interference? For example, would increasing permissible power levels be beneficial for particular types of services in areas where there is less spectrum congestion? Commenters should explain how their proposed changes would satisfy the goal of expanded rural service while not increasing the likelihood of harmful interference to existing licensees.

28. With respect to the Rural Radiotelephone Service, which includes BETRS, we note that as of November 2002, there were 67 active BETRS licenses with facilities in 17 states[95] and 580 active Rural Radiotelephone licenses with facilities relatively uniformly spread throughout the continental United States. Of these, only one BETRS and two Rural Radiotelephone licenses were issued within the last two years. We seek comment on how we might revise the rules for these services to further facilitate the provision of wireless service to rural areas.

H. Unlicensed Spectrum

29. We also seek comment on the extent to which unlicensed spectrum is being used to provide wireless services to rural communities.[96] We ask commenters to identify the service providers that are utilizing unlicensed spectrum and the types of services they are offering. Further, we seek comment regarding actions the Commission could take to encourage or facilitate the use of unlicensed spectrum. For example, unlicensed operation is generally limited to very low power levels in order to help ensure that the operation does not interfere with licensed services. However, the interference potential of unlicensed devices may be low or negligible in rural communities.[97] Should unlicensed devices be permitted to use higher output power levels in such environments? If so, what criteria would have to be met in order to qualify to use the higher power levels?

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[93] *Id.*

[94] *See, e.g.,* 47 C.F.R. §§ 22.301-22.383 and 22.901-22.925 (Cellular Radiotelephone Service); 47 C.F.R. §§ 24.50-24.55 and 24.229-24.238 (Broadband PCS); 47 C.F.R. §§ 90.201-90.219, 90.401-90.469, 90.476-90.483, and 90.635-90.658 (Specialized Mobile Radio Service); 47 C.F.R. §§ 101.101-101.151 (technical standards for fixed microwave services); and 47 C.F.R. §§ 101.201-101.217 (operational standards for fixed microwave services).

[95] Those states include: Alaska, Arizona, Arkansas, California, Colorado, Hawaii, Maine, Montana, New Mexico, Nevada, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Utah, and Washington.

[96] Part 15 of the Commission's rules permits operation of unlicensed devices provided such devices do not cause interference to authorized services. These devices must also accept interference received from authorized services. *See* 47 C.F.R. § 15.5.

[97] *But see*, the "NTCA 2002 Wireless Survey Report" at 8, in which survey respondents cite interference/congestion as a problem with using unlicensed spectrum.

I. Eligible Telecommunications Carriers

30. The Commission's rules concerning universal service support for eligible telecommunications carriers ("ETCs") may impact deployment of wireless services to rural areas. Under the Communications Act, only carriers designated as ETCs under section 214(e) may receive federal universal service support. Under the Commission's rules, wireless carriers may be designated as ETCs and may receive universal service support for providing service to consumers that use wireless service as their only phone service as well as to consumers that also maintain wireline service. The Commission recently asked the Federal-State Joint Board on Universal Service (Joint Board) to review the ETC rules and provide recommendations regarding if and how these rules should be modified.[98] We anticipate that the Joint Board will develop information on the impact of the Commission's ETC rules on deployment of wireless services to rural areas. In this docket, we seek comment generally on whether the Commission's ETC rules have promoted deployment of wireless service to rural areas and greater subscribership in these areas. We also seek to gather factual information. Specifically, we direct the Universal Service Administrative Corporation to provide us with information on the number of wireless carriers currently designated as ETCs, the amount of federal universal service support they have received, and the number of lines they serve. We ask that commenters provide any information available on how many of the customers served by wireless carrier ETCs also maintain wireline phones. How many customers had no phone service whatsoever until they purchased wireless service?

IV. PROCEDURAL ISSUES

A. *Ex Parte* Presentations

31. This is an exempt proceeding in which *ex parte* presentations are permitted (except during the Sunshine Agenda period) and need not be disclosed.[99]

B. Filing of Comments and Reply Comments

32. We invite comment on the issues and questions set forth above. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on or before February 3, 2003, and reply comments on or before February 18, 2003. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies. *See* Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998). Commenters that wish confidential treatment of their submissions should request that their submission, or specific part thereof, be withheld from public inspection.[100]

33. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an email to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding,

[98] Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Order*, FCC 02-307 (rel. Nov. 8, 2002).

[99] 47 C.F.R. § 1.1204(b)(1).

[100] *See* 47 C.F.R. § 0.459.

commenters must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). The Commission's contractor, Vistronix, Inc., will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743. U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission. Parties also should send four (4) paper copies of their filings to **Robert Krinsky**, Federal Communications Commission, Room 4-B551, 445 12th Street, S.W., Washington, D.C. 20554.

V. ORDERING CLAUSES

34. Accordingly, IT IS ORDERED that, pursuant to the authority contained in 47 U.S.C. Sections 151, 4(i), and 303(r) this Notice of Inquiry is ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

SEPARATE STATEMENT OF
CHAIRMAN MICHAEL K. POWELL

Re: *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services*

Spectrum policy should not be a blunt instrument but a precision tool enabling us to facilitate as many services as possible to benefit the American people. As the work of the Spectrum Policy Task Force has made clear, the first step in wireless policymaking is to consider the spectrum environment in question – from the kind and number of users to the type of radios in use. Our flexibility should allow us to tailor a spectrum policy to the rural spectrum environment that takes advantage of each dimension of spectrum: space, frequency, power and time. By the questions we ask today, we hope to learn more about the unique characteristics of rural spectrum America. Does the lack of congestion create an opportunity for more relaxed technical rules? How do build out requirements affect deployment? Can we do more with an unlicensed service model? How well have partitioning and disaggregation worked to get rural spectrum into the hands of those who would use it? Are there other market-based mechanisms we can use to achieve these goals? Rural America has greatly benefited from the competition brought about by spectrum-based services. But those benefits have been achieved through nation-wide policy making. It is my hope and expectation that through a more tailored spectrum policy process we can deliver even greater benefits to rural consumers.

SEPARATE STATEMENT OF
COMMISSIONER KATHLEEN Q. ABERNATHY

Re: Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, Notice of Inquiry

Today's NOI is an important step toward improving our policy process regarding rural spectrum. As I mentioned in my statement in the 27 MHz Order earlier this year, I believe the decision-making process will greatly benefit from additional data regarding the spectrum being used, the services being provided, and the needs in rural America. In turn, the Commission has an obligation to ensure that our regulatory tools are effective in facilitating the efficient use of spectrum in rural regions. This NOI seeks to do just that.

First, it will broaden our understanding of the availability of wireless services in rural areas. Second, it asks whether the policies the Commission has adopted in the past to encourage the provision of spectrum-based services to rural areas and the participation of rural telephone companies in the competitive bidding for spectrum licenses are effective. The NOI also solicits comment on whether there are new approaches that may better accomplish these goals.

SEPARATE STATEMENT OF
COMMISSIONER MICHAEL J. COPPS

RE: Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services.

I would like to thank the Chairman for initiating this NOI. In several of the Commission's spectrum management and auction decisions over the past year, I have remarked, as have my colleagues, on the need to increase our focus on the rural dimensions of what we do. We certainly operate under a clear and heavy statutory obligation to bring the benefits of spectrum-based services to rural America.

In response, the Chairman agreed to initiate this important proceeding. In it we seek comment on how to improve our spectrum policy so that it better serves rural consumers. We ask about the need for a rural bidding credit for auctions to spur development. We explore how the geographic size of licenses affects the ability of companies to bring service to rural communities and whether we should use RSAs in more cases. We ask whether our rules that require carriers to build out their networks in order to keep their license allow build-out that excludes rural areas. The list goes on.

The next step is for rural America to raise its voice. Consumer groups, carriers, local governments, State Commissions, and individuals now have the chance to tell us how we should change our rules so as to improve wireless service in rural areas. This is your chance. Don't waste it. Please send in detailed comments with specific ideas, complaints, data -- even praise where its due! The notice and comment process is sometimes the only eyes and ears we have at the Commission. So make yourself be seen and heard.

SEPARATE STATEMENT OF
COMMISSIONER KEVIN J . MARTIN

Re: *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services*, Notice of Inquiry, WT Docket No. 02-381

I am pleased to support this item. Promoting the deployment of services to rural America is one of the Commission's most important priorities. Consumers living in rural areas may lack opportunities to access telecommunications services comparable to those found in more urban areas, and those services that are available may be offered at higher prices. The Commission should, indeed must, work to address these disparities in all areas of telecommunications. In doing so, the Commission must work to ensure that rural Americans have access to reasonably comparable services at reasonably comparable rates to those found in urban areas.

With respect to wireless services, the Commission has explicit obligations to promote the development and rapid deployment of wireless services in rural areas, as well as to ensure that rural telephone companies have a meaningful opportunity to provide spectrum-based services. Specifically, section 309 of the Communications Act directs the Commission, in designing systems of licensing through competitive bidding, to promote "the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas, without administrative or judicial delays." 47 U.S.C. § 309(j)(3)(A). Section 309 also requires the Commission to ensure that "rural telephone companies" "are given the opportunity to participate in the provision of spectrum-based services, and, for such purposes, [to] consider the use of tax certificates, bidding preferences, and other procedures." *Id.* § 309(j)(4)(D).[1]

I take these obligations very seriously and am pleased that the Commission has opened this inquiry into how we can better fulfill them. I am hopeful that this proceeding will provide us with not only information on how well our current policies are working, but also on what we could do to address more effectively the needs of rural communities. To that end, I strongly encourage parties to participate in this proceeding. The more comprehensive data we can gather, the better we can tailor our policies to promote rural deployment and ensure that rural telephone companies have a meaningful opportunity to provide spectrum-based services. As wireless technologies continue to advance, the Commission must make certain that all Americans are given an opportunity to participate in these developments, especially those Americans living in rural areas. I look forward to moving ahead in this proceeding.

[1] That provision requires the Commission to provide the same opportunity to "small businesses" and "businesses owned by members of minority groups and women," which are also important Commission priorities. 47 U.S.C. § 309(j)(4)(D).