

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

In the Matter of )  
 )  
Commission Seeks Public Comment on ) ET Docket No. 02-135  
Spectrum Policy Task Force Report )

To: Office of Engineering and Technology

**COMMENTS OF THE RURAL TELECOMMUNICATIONS GROUP**

The Rural Telecommunications Group (“RTG”) hereby submits comments on the Spectrum Policy Task Force Report (“Report”) in response to the Federal Communications Commission’s (“FCC” or “Commission”) invitation in its *Public Notice* released November 25, 2002.<sup>1</sup> RTG is focusing in this proceeding on the Commission’s spectrum policy proposals as they affect rural markets. Specifically, RTG encourages the Commission to continue its recent efforts to adopt “rules to promote service to rural America.”<sup>2</sup>

**I. Statement of Interest**

RTG is an organized group of rural telecommunications providers who have joined together to speed the delivery of new, efficient, and innovative telecommunications technologies to the populations of remote and underserved sections of the country. RTG’s members provide

---

<sup>1</sup> See *Commission Seeks Public Comment On Spectrum Policy Task Force Report*, ET Docket No. 02-135, FCC 02-322 (November 25, 2002). The Report can be found at [www.fcc.gov/stfp](http://www.fcc.gov/stfp). See also, *Commission Seeks Public Comment On Spectrum Policy Task Force Report*, ET Docket No. 02-135, DA 02-3400 (December 11, 2002) (extending comment due date to January 27, 2003).

<sup>2</sup> See *In re Spectrum Policy Task Force Seeks Public Comment on Issues Related to Commission’s Spectrum Policies*, ET Docket No. 02-135, Public Notice, DA 02-1311, (June 6, 2002) (“*Public Notice*”) (Joint Statements of Commissioners Kevin J. Martin and Michael J. Copps).

wireless telecommunications services such as cellular telephone service and Personal Communications Services (“PCS”) to their subscribers. RTG’s members are affiliated with rural telephone companies or are small businesses serving or seeking to serve secondary, tertiary, and rural markets. RTG’s members applaud the Task Force for recognizing the special concerns that rural carriers have in providing service to rural Americans<sup>3</sup> and welcome the Commission’s focus on the Spectrum Policy Task Force’s (“Task Force”) inquiry into spectrum management issues.

## **II. The Commission Has a Statutory Duty to Promote Service to Rural America**

As the Commission examines the Task Force’s spectrum policy proposals, it must keep in mind that it possesses a statutory obligation to ensure that new, spectrum-based technologies are deployed “in rural areas” and to use its regulations to “ensure that small businesses and rural telephone companies” have unqualified access to spectrum.<sup>4</sup> For far too long, the delivery of new, spectrum-based services to rural America has been an afterthought. RTG encourages the FCC to use this proceeding to develop a predictable national spectrum policy that promotes the efficient use of spectrum in *all* areas of the country not just highly populated areas.

Over a decade ago, the Commission ensured that cellular service would reach rural America by awarding landline telephone companies, including those landline companies serving rural areas, B Block spectrum in Rural Service Areas (“RSAs”). The near ubiquity of cellular service in rural regions, as well as the large number of small, rural cellular carriers, is a testament to the success of the Commission’s cellular rules and procedures. The Commission licensed the cellular spectrum in Metropolitan Statistical Areas (“MSAs”) and RSAs. The use of MSAs and RSAs created a rural/metropolitan dichotomy that served the cellular market well. Carriers that

---

<sup>3</sup> Report at 58-60.

<sup>4</sup> See 47 U.S.C. §§ 309(j)(3)(A) and (4)(D).

were interested in serving rural customers could concentrate on these specific markets, whereas nationwide carriers could focus their attention on more-profitable urban and suburban areas. In fashioning its cellular rules, the Commission developed strict cellular buildout rules that led to the delivery of cellular service to almost all regions of the country. RTG suggests that when the Commission develops future spectrum rules, it refer back to certain aspects of the successful cellular example, especially the use of MSAs/RSAs coupled with strict buildout requirements, as well as required contour (or “real world” coverage) maps and strict reporting guidelines for submitting underlying engineering parameters to allow the industry to “police” itself with regard to actual service provided to the rural community.

In the past few years, the Commission has begun revamping its spectrum polices to once again take into account rural concerns, beginning with the Commission’s conclusions in its *Competitive Bidding Order* proceeding.<sup>5</sup> In that proceeding, the FCC stated that Section 309(j) of the Communications Act of 1934, as amended, requires the FCC to disseminate licenses to a wide variety of applicants, including small businesses and rural telephone companies, and to promote the development and rapid deployment of new technologies to the public, including those residing in rural areas.<sup>6</sup> The Commission concluded that the Section 309(j) mandate could best be met by service-specific small license areas.<sup>7</sup> RTG urges the Commission to remember its previous deliberations regarding the use of small geographic license areas as the Task Force proceeding progresses.

---

<sup>5</sup> *In re 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 Rulemaking, WT Docket No. 97-82, (Aug. 14, 2000) (“Competitive Bidding Order”).*

<sup>6</sup> 47 U.S.C. § 309(j).

<sup>7</sup> *Competitive Bidding Order* at ¶ 53.

The FCC's use of MSAs and RSAs in the auction of 700 MHz spectrum (Auction 44) provides the most recent example of why the Commission should continue to use smaller geographic license areas whenever possible. In Auction 44, over two thirds of the applicants were rural telephone companies or affiliated with a rural telephone company. There is a direct correlation between the use of RSAs and the high level of participation in the auction process by rural carriers. In the 700 MHz auction, 58 percent of the winning bidders were affiliated with rural telephone companies. Had the Commission chosen to use larger geographic license areas such as Economic Areas ("EAs"), most small rural carriers would have been deterred from participating in the auction since most of the geographic area licensed is beyond the scope of the areas they seek to serve and the cost of purchasing such a license is beyond affordability. In addition, companies that can afford large license areas that include large urban populations generally do not have any interest, be it personal or financial, to serve rural areas. The use of large license areas results in rural areas going unserved and being held hostage by those seeking only to provide coverage to urban areas and highways between urban areas. This, by definition, is inefficient use of spectrum. Accordingly, RTG encourages the FCC to continue to employ the use of RSAs and MSAs based on its "rural" success with its cellular spectrum rules, which included strict buildout and reporting requirements that would allow others to utilize fallow spectrum.

### **III. RTG Applauds the Task Force for Distinguishing Between Urban and Rural Markets and Encourages the FCC to Do the Same**

#### **A. Rural Markets Are Different Than Metropolitan Markets**

In its Report, the Task Force recognizes that rural markets are different than urban markets and that Commission rules should be adjusted accordingly.<sup>8</sup> In general, large “nationwide” carriers target more profitable urban areas while carriers with roots in rural areas specialize in serving less profitable rural areas. As its members are experts in the provision of telecommunications in rural areas, RTG urges the Commission to be aware of the physical and economic differences between rural and urban regions when developing its spectrum policy.

The demographics and physical characteristics of rural and urban areas differ dramatically. Even utilizing wireless technologies, rural areas, with their vast spaces, low population densities, difficult terrain, and harsh weather, remain expensive and challenging locations to serve. Nationwide carriers concentrate on cities, suburban areas, and highways for mobile services. Nationwide carriers generally use spectrum to target businesses and Multi-Dwelling Units (“MDUs”) in dense urban areas for non-mobile spectrum services. Such a business model will not work in sparsely populated rural areas. The majority of rural carriers are also traditionally operated as cooperatives or as local family owned businesses that have strong ties to the community. The cooperative companies are owned by their subscribers and the services are provided because, at one time, no nationwide company would provide such service. The family owned businesses were established for the same reason – to serve the community because no one else would. For these reasons, rural carriers take a longer-term strategic view rather than a short-term profit focus. Rural carriers, less driven by shareholder profit responsibilities, can concentrate on the public interest of offering their customers new services

---

<sup>8</sup> Task Force Report at 58.

and are able to use the telecommunications infrastructure they already have in place to utilize new spectrum in an economically efficient manner. This is not to say that rural carriers can afford to build and operate wireless systems in remote rural areas at a constant loss; no one can, not without subsidization. It is to say that there is more at stake than short-term profit gains that in a market-based economy would leave most rural, high cost areas unserved.

**B. Smaller Geographic License Areas Will Encourage Efficient Spectrum Use**

As discussed above, the use of MSAs and RSAs encourages rural carrier participation in spectrum auctions since they do not have to compete with the deep pockets of large, nationwide carriers. Since large carriers generally do not seek to serve rural regions since they target more economically robust urban and suburban areas, smaller geographic license areas that distinguish between metropolitan and rural areas are desirable and efficient. The use of these smaller geographic license areas that divide urban from rural allows carriers to develop both regional and nationwide business plans. The use of large geographic license areas favors nationwide business plans over all other plans. The Commission should not assume the role of promoting certain business plans while excluding others. With smaller geographic license areas, the market will determine business plans best suited for both urban and rural America.

As discussed above, the best way the FCC can ensure that rural carriers and small businesses have an opportunity to participate in the acquisition and deployment of new spectrum is by auctioning licenses on the basis of MSAs and RSAs. MSAs and RSAs, by definition, separate rural areas from urban areas. De-linking metropolitan areas from rural areas will allow the marketplace, through the auction process, to determine an accurate valuation for each area. Companies interested in providing localized service to rural areas will not have to compete against “national” companies that value a license based solely on dense urban areas. Companies

interested in providing service to more profitable populated markets may acquire MSAs without holding the surrounding rural areas hostage. In an ideal world, large carriers seeking to serve urban areas will partner with their rural counterparts to provide seamless service. If left to their own devices, however, history has proven that the large carriers will only build the profitable areas and the remote and rural areas will be left unserved.

**C. Stricter Buildout Requirements Will Promote Efficient Spectrum Use**

RTG urges the Commission to examine a “build it or lose it” policy to ensure that rural areas (or any area for that matter) do not go unserved. While RTG favors more spectrum flexibility in general since, under the FCC’s auction scheme, users pay for the rights to use the spectrum for a set period of time, RTG does not favor such flexibility when it concerns the Commission’s buildout requirements. The Commission’s use of strict rural buildout requirements in the cellular arena led to the current robust cellular service footprint that includes rural areas. A “use it or lose it” approach to spectrum use provides incentives for carriers to either buildout in rural areas or hand over the spectrum to entities ready, willing, and able to provide such service.

The Commission should refrain from relying upon its recent use of the vague and nearly unenforceable “substantial service” standard. A “substantial service” requirement will not speed the delivery of new, spectrum-based services to rural areas. The vagueness of the current standard will most likely inhibit the deployment of wireless service to rural areas. The meaningless substantial service requirement causes rural areas to continue to go unserved when license winners are able to meet the requirement by serving a small portion of an urban area.

The FCC should not set population coverage requirements. Instead, the Commission should specify a set period for construction to occur, such as half the original license term. After

half of the term is over, any unserved area of significant size (*e.g.*, a minimum of fifty square miles) should be available for any applicant, including the licensee, to apply to serve. This will assure that rural spectrum is not continually warehoused by those only interested in more populated areas. This mechanism is similar to the one followed by the cellular rules and procedures.

The FCC should re-establish cellular-like reporting requirements for all carriers that include engineering documentation that can be used by others to confirm actual deployment. These reporting requirements should include specific geographic “real world” coverage maps supported by engineering parameters for all sites (not just “perimeter” sites) that can be used to re-create and verify that coverage. Reported engineering parameters should include, but not be limited to, geographic coordinates (NAD-83), antenna height (AGL), ground elevations (AMSL) at base of support structure, support structure height and type, antenna models, maximum horizontal and vertical antenna radiation patterns, antenna orientations, maximum ERP<sub>d</sub>, and an engineering statement. These parameters are carefully thought-out during the design of the various systems, they are available, and they can be easily formatted in Adobe PDF files to be submitted via the FCC’s ULS system. In this way, no new forms are required, the Commission is not burdened to review the documents, yet the data is accessible for the industry to monitor itself, evaluate those areas of the country that need service, and act through Commission “Phase II” type rules to obtain the applicable license and begin providing service to the public in underserved communities.

#### **D. Partitioning and Disaggregation Has Failed**

The FCC’s reliance upon partitioning and disaggregation to foster the rapid delivery of wireless service to rural areas is misplaced. The Commission must realize that rural America

will not receive the benefits of new spectrum-based services if the Commission continues to rely upon failed policies to achieve rural spectrum penetration. The FCC's partitioning and disaggregation rules have failed for several reasons. The Commission's disaggregation and partitioning rules do not serve as an incentive for license holders to "carve out" portions of their license areas for rural carriers. RTG members have been repeatedly rebuffed in their attempts to entice license holders in various services to partition their license areas or disaggregate their spectrum.

According to many licensees, the administrative costs of entering into and managing the partitioning/disaggregation process outweigh the realized financial gains. Licensees are also unwilling to partition portions of their licenses because they want to retain the entire geographic area when they go to sell the system as a whole in the future. Licensees perceive that unpartitioned licenses will have a higher resale value. The Commission should reconsider its misplaced reliance upon the failed record of its partitioning and disaggregation rules and allow small, rural carriers a chance at licenses through the primary auction process. By RTG's count, far less than 0.25 percent of all the licenses sold at auction have resulted in partitioning and disaggregation, or a combination of the two.

#### **IV. The FCC Should Examine Standardized Rules**

The Task Force has concluded that licensees should be given more "flexibility" to facilitate optimal spectrum use.<sup>9</sup> While RTG generally supports allowing the flexible use of spectrum, the FCC's flexible use policies are now *too* flexible. The only way that providing service in rural areas becomes economically viable is if there is a mass market for equipment. Rural carriers, with their relatively small customer bases, cannot command the attention of

---

<sup>9</sup> Task Force Report at 59.

equipment manufacturers and must depend upon mass market equipment. The only way there is a mass market for equipment is if there is a certain level of standardization of equipment and services. For example, a cellular cell used to cost approximately \$1 million; now it is less than \$200,000. The FCC has auctioned spectrum for which there is no clear use, no equipment, and no standardization at all. This has led, in part, to numerous failed services and an almost total lack of deployment in those services (*e.g.*, wireless communications service (“WCS”) and local multipoint distribution service (“LMDS”)). Overly flexible policies may also seriously deter investment in new services. For example, the FCC’s decision to allow both broadcast and mobile service in the 700 MHz bands have created substantial interference and deployment issues, making investment less likely. Therefore, RTG suggests that the FCC examine its flexible use policy, realizing that standardization can help speed new services to market.

## **V. Promoting Access to Spectrum in Rural Regions**

### **A. Secondary Spectrum Markets Can Lead to Efficient Use of Spectrum**

As part of its spectrum management policy, the Commission should use this opportunity to develop a secondary spectrum market mechanism that will encourage a robust market in currently unused fixed, broadband spectrum.<sup>10</sup> While the Commission should concentrate its efforts on speeding the delivery of spectrum to rural regions of the country as well as urban and suburban areas, spectrum leasing and other secondary market mechanisms can be used to augment the auction process and promote more efficient use of spectrum. Secondary markets can rectify a typical situation in which a rural carrier has potential fixed wireless broadband

---

<sup>10</sup> See *In re Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, WT Docket No. 00-230, Notice of Proposed Rulemaking, FCC 00-402 (November 27, 2000), 65 Fed. Reg. 81475 (December 26, 2000).

customers, but no spectrum assets, and the spectrum licensee is unwilling to serve rural and less populated areas or share its spectrum usage rights with rural carriers.

Spectrum leasing has the potential of bringing the benefits of the wireless and digital broadband revolution to even the remotest portions of the United States. The Commission can use this proceeding to urge the Commission to rethink its approach to apportioning rights and responsibilities between licensee/lessors and spectrum user/lessees. Rather than imposing liability on lessors for the bad acts of lessees, the Commission should focus its compliance and enforcement resources on the beneficial, day-to-day operator of the spectrum usage right—the lessee. With the specter of forfeitures and even license revocations facing them due to the independent actions of lessees, few licensees will risk the leasing of spectrum for the little incremental income it provides. Licensees need the legal certainty from the Commission that they will not be held responsible for the independent actions of their lessees.

The Commission has more than ample legal authority to regulate users of the radio spectrum who do not hold FCC licenses. The radio tower enforcement regime is targeted at both non-licensees who own towers as well as the licensees leasing tower space, and RTG has no evidence that this focus adversely impacts FCC resources or the public's safety. With a properly executed due diligence scheme, the Commission can be made aware of all lessees' identities and location and thereafter conduct compliance and enforcement actions against the actual users of the spectrum. RTG encourages the Commission to continue promoting the efficient use of spectrum through the development of secondary markets where licensees have the incentive to actually lease spectrum.

## **B. Unlicensed Spectrum Will Deliver Services to Rural Areas**

The Task Force recommended that the Commission designate additional bands for unlicensed operations. RTG generally supports the allocation of spectrum for unlicensed use. Unlicensed spectrum is a great way for small and rural businesses to offer spectrum-based services to customers without the high upfront costs incurred through auctions. Unlicensed spectrum can make telecommunications services that might be economically infeasible in sparse rural markets available. However, RTG cautions the Commission that, in certain instances, unlicensed spectrum may unfairly disadvantage carriers who have made substantial investments in spectrum auctions under the assumption that they were paying for the privilege of utilizing a certain block of spectrum since they “valued” it the most.

## **C. Rural Areas Can Utilize Higher Power Transmitters**

While RTG supports the existing rules contained in Part 15 regarding interference protection from unlicensed devices, RTG also supports the notion that such devices could provide critical services to rural areas if they were allowed to operate at higher power levels. RTG sees the use of higher powered transmitters, where interference is less of a concern in rural areas, as a key element in the provision of rural telecommunications services. RTG urges the Commission to support greater flexibility in transmission power limits, especially in rural and underserved areas.

## **C. Development of New, More Efficient Technologies**

RTG encourages the Commission to evaluate its rules to make it simpler for new technologies to develop that will spur lower cost solutions for the deployment of services in rural America. Several RTG members are working with software defined radio developers to determine if there is a software defined radio solution that will benefit rural America by allowing perhaps one set of

facilities to be constructed that can support multiple mobile voice and data technologies. RTG members believe that such advancements will keep costs down while supporting multiple operators. This could allow competitive choices in rural America without the high cost associated with building multiple networks. RTG believes flexibility and quick action on the part of the Commission will be instrumental in advancing technologies such as software defined radio.

## **VI. Conclusion**

For the foregoing reasons, the Commission should adopt spectrum policy that encourages efficient spectrum use in both urban and rural areas. While RTG understands the Commission's emphasis on "nationwide" spectrum issues since telecommunications use can be one of the prime drivers of our economy, RTG encourages the Task Force to remember its statutory duty to consider the impact of all of its policy conclusions on rural consumers.

Respectfully submitted,

/s/

**RURAL TELECOMMUNICATIONS GROUP**

Caressa D. Bennet, General Counsel  
Kenneth C. Johnson, Regulatory Director  
Bennet & Bennet, PLLC  
1000 Vermont Avenue, N.W., 10<sup>th</sup> Floor  
Washington, D.C. 20005  
(202) 371-1500

January 27, 2003