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

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762	)	WT Docket No. 06-150
And 777-792 MHz Bands	)	
	)	
Revision of the Commission's Rules to	)	CC Docket No. 94-102
Ensure Compatibility with Enhanced 911	)	
Emergency Calling Systems	)	
	)	
Section 68.4(a) of the Commission's Rules	)	WT Docket No. 01-309
Governing Hearing Aid-Compatible	)	
Telephones	)	

COMMENTS OF THE NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

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COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION

The National Telecommunications Cooperative Association ("NTCA") hereby submits these comments in response to the Federal Communications Commission's (Commission's) Notice of Proposed Rulemaking, Fourth Further Notice of Proposed Rulemaking, and Second Further Notice of Proposed Rulemaking in the above referenced proceeding (Notice) and the accompanying initial regulatory flexibility analysis.[1] In its Notice, the Commission seeks comment on potential changes to several of the Commission's initial determinations applicable to 700 MHz Band licenses.

[1] Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150, *Notice of Proposed Rulemaking*, Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Fourth Further Notice of Proposed Rulemaking*, and Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, *Second Further Notice of Proposed Rulemaking*, FCC 06-114 (rel. Aug 10, 2006).

I. INTRODUCTION AND SUMMARY

NTCA is a national association of approximately 560 local exchange carriers in 44 states that provide service primarily in rural areas. Approximately 300 of NTCA's member companies offer some type of wireless service. All NTCA members are small carriers that are "rural telephone companies" as defined in the Telecommunications Act of 1996 ("Act"). While some offer local exchange service to as few as 44 lines and a small handful to 50,000 or more, nearly 50% of NTCA members serve between 1,000 and 5,000 lines. Population density in most member service areas is in the 1 to 5 customers per square mile range. Approximately half of NTCA's members are organized as cooperatives and the other half are commercial companies. NTCA's members are interested in the 700 MHz spectrum, believing that it could be an excellent opportunity for rural companies and their subscribers if it is auctioned in a manner that facilitates small company acquisition of the spectrum.

The 700 MHz spectrum is particularly well-suited for rural applications. Its propagation characteristics enable providers to cover vast distances with minimal tower construction. Given an opportunity and sufficient spectrum, a majority of rural carriers expect to use the band to provide rural consumers with a wireless broadband product. Rural carriers will have an opportunity to obtain the spectrum only if it is auctioned in a manner that permits them meaningful opportunity to participate in and win a spectrum auction. NTCA's members believe that a 20 MHz block of spectrum should be auctioned according to cellular marketing areas ("CMAs"). Rural carriers will need at least this amount of paired spectrum to support the wireless broadband applications of the future. A significant spectrum block will help rural carriers remain competitive with larger carriers who have amassed large swaths of spectrum.

Although NTCA strongly advocates the auctioning of 20 MHz of paired 700 MHz spectrum according to CMAs, as a lesser alternative, NTCA would support the Rural Telecom Group's request that the Upper 700 MHz C Block and Block B in the Lower 700 MHz band be auctioned according to CMAs. However, even if spectrum is auctioned according to CMAs, small carriers cannot compete with large carriers interested in the same spectrum resource. In order to satisfy Congressional mandates that the Commission offer certain designated entities, including rural telephone companies, meaningful opportunity to participate in the provision of spectrum-based services, NTCA requests that spectrum be set aside for bidding by qualified small businesses only.

II. THE 700 MHz SPECTRUM IS WELL-SUITED FOR RURAL APPLICATIONS

The customers of rural telephone companies, like those of larger companies, are demanding more bandwidth for wireless Internet access. Rural companies believe that they will need to be able to deliver significant amounts of data to satisfy customer need and demand for broadband applications in the not too distant future. The 700 MHZ spectrum is uniquely situated to serve the rural need.

Putting aside the cost of spectrum acquisition, the largest financial obstacle to wireless broadband deployment is the cost associated with tower construction. Unlike urban areas where the revenues generated from a large number of customers offset the cost of tower construction and additional towers are constructed when customer demand exceeds capacity, rural carriers must cover great distances with fewer customers over which to spread construction costs. Consequently, the cost-benefit analyses of serving urban and rural areas are

not comparable. Urban carriers construct to handle consumer volume; rural carriers construct to handle consumer distance.

The propagation characteristics of the 700 MHz spectrum are such that few towers are needed to cover great distances. Fewer towers translate to decreased build out costs in rural areas. The 700 MHz spectrum applications may, in fact, be more efficiently and economically deployed in rural areas than in urban. Consumer demand will dictate the construction of additional towers when use outpaces capacity in urban areas. In rural areas, the low customer density means that carriers only need to construct enough towers to cover the land mass within their service area. The 700 MHz spectrum lends itself to efficient rural broadband applications.

Rural telephone companies recognize the superior rural propagation characteristics of 700 MHz spectrum and have indicated their desire to obtain it. In 2002 the FCC offered at auction 740 licenses in the Lower 700 MHz band. One 12-megahertz block consisting of a pair of 6 megahertz segments was offered in each of 734 Metropolitan Statistical Areas/Rural Service Areas ("MSA/RSAs"). Additionally, one 6-megahertz blocks of contiguous, unpaired spectrum was offered in each of six regions known as the 700 MHz band economic area groupings ("700 MHz band EAGs"). More than two-thirds of those companies who applied to bid were rural telecommunications companies or their affiliates. Of the winners, 58 percent were affiliated with rural telecommunications carriers.

In late fall of 2005, NTCA surveyed its members on their activities in the areas of providing wireless services to their members/customers. Given their choice, survey respondents indicated their preference for additional 700 MHz spectrum, cited by 56% of those who indicated

they wished to add additional spectrum. Advanced wireless services ("AWS") spectrum and 800 MHz spectrum were a distant second and third at 10% each.[2]

Rural telephone companies have identified 700 MHz spectrum as spectrum they desire and would use to provide wireless broadband to rural America. The Commission must act to provide meaningful opportunity for these small carriers to obtain this valuable spectrum.

III. SMALL LICENSED SERVICE TERRITORIES ARE APPROPRIATE IN THE 700 MHz SPECTRUM BAND

In its notice, the Commission questions whether licenses should be created over services area sizes other than Economic Area Groupings ("EAGs"), including over small areas such as the 734 Cellular Market Areas, composed of MSAs and RSAs.[3] NTCA supports licensing significant portions of the available spectrum according to the small geographic territories, providing opportunity for small carrier to obtain the spectrum. As the Commission recognizes,

> RSAs and MSAs represent areas over which many customers may desire to receive the majority of their wireless or broadcast-type services and thus can be the focus of smaller carriers that do not wish to bid or provide service to larger regions.[4]

The 700 MHz spectrum is particularly well suited for rural applications. Carriers who have the desire and motivation to serve rural territories must have the opportunity to obtain the spectrum for its full potential to be realized. The current plan to license the spectrum according to EAGs is a virtual guarantee that no small carriers will succeed at auction. Only large carriers have the

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[2] *NTCA 2005 Wireless Survey Report*, January 2006 at 10. Available online at www.ntca.org/content_documents/2005WirelessSurveyReport.pdf.
[3] Notice, ¶¶ 28-41
[4] Reallocation and Service Rules for the 698-746 Spectrum MHz Band (Television Channels 52-59), GN Docket No. 01-74, *Report and Order*, FCC 01-364, 17 FCC Rcd 1022, ¶ 96 (2002).

resources necessary to obtain spectrum covering such vast swaths of territory. It would be a mistake, ultimately harming rural consumers, to deny rural carriers the opportunity to offer service using 700 MHz spectrum.

NTCA's members are situated in the communities they serve and have the will and intent to provide wireless broadband to rural consumers. It is appropriate and in the public's interest for the Commission to license significant portions of the remaining spectrum according to CMAs.

By modifying the 700 MHz licensing plan to license additional blocks on the basis of CMAs, the Commission will take a step toward satisfying the mandates of Section 309(j) of the Communications Act of 1934 and Section 706 of the Telecommunications Act of 1996 which compel the Commission to adopt rules and policies to promote the development and rapid deployment of new technologies to rural areas. The Commission is also directed to ensure that small businesses, specifically rural telephone companies, are given the opportunity to participate in the provision of spectrum-based services. The Commission will best fulfill its Congressional directives and provide opportunities for rural carriers by auctioning spectrum bands in small service territories.

IV. A 20 MHz BLOCK OF SPECTRUM SHOULD BE AUCTIONED ACCORDING TO CMAs.

The Commission seeks comment on the impact of designating the unpaired 6 MHz block E for small-area licensing. Six MHz of unpaired spectrum is far below the amount of spectrum carriers require to serve the rural need. NTCA members indicate that while 4 Mbps for wireless broadband, a speed that might be possible with 12 MHz of paired spectrum, may be considered

competitive today, it is unlikely to be so in a couple of years when carriers would have to start recouping the investment.[5]

A 20 MHz block of paired spectrum should be auctioned according to CMAs. NTCA's members indicate their preference to use the spectrum for wireless broadband applications. While a number obtained Lower 700 MHz C-Block licenses, most did not. Small carriers need 20 MHz to remain competitive long-term and offer the services customers will demand.

V. IN THE ALTERNATIVE, THE COMMISSION SHOULD LICENSE THE UPPER 700 MHz C BLOCK AND BLOCK B IN THE LOWER 700 MHz BAND ACCORDING TO CMAs.

Assuming *arguendo* that the Commission declines to allocate a 20 MHz block of spectrum according to CMAs, in the alternative NTCA supports RTG's suggestion that the Commission license the Upper 700 MHz C block and Block B in the Lower 700 MHz band according to CMAs. Licensing spectrum in both the Upper and Lower 700 MHz blocks affords prospective licensees maximum flexibility in both spectrum bands and recognizes that the bands may be used to provide different services.

Licensing one block in the Upper 700 Mhz band will encourage small and rural carriers to participate in the provision of service in the band. It will also facilitate the deployment of service utilizing this spectrum in rural areas.

Licensing the Lower 700 MHz B block according CMAs may permit existing Lower 700 MHz C- Block licensees the flexibility of augmenting their spectrum with adjacent bandwidth for a combined 24 MHz block of spectrum. Current C-block licensees will need additional

[5] The estimated 4 Mbps is divisible between the number of subscribers using a particular antenna, thus the actual speed that a customer experiences would likely be far lower.

bandwidth to meet future consumer broadband demands and accommodate new technologies. As the demand for wireless broadband grows, the current 12 MHz of paired spectrum will eventually be exhausted. The additional adjacent spectrum will be essential for many small carriers with Lower 700 MHz spectrum who seek to use the spectrum to deploy wireless broadband service to rural communities.

VI. THE COMMISSION SHOULD SET ASIDE A SIGNIFICANT SPECTRUM BLOCK FOR BIDDING ONLY BY DESIGNATED ENTITIES

The Commission should set aside a significant block in the 700 MHz band for bidding by only certain designated entities.[6] The auction for the remaining 700 MHz spectrum is virtually guaranteed to attract a significant amount of attention and investment. Its propagation characteristics make it prime spectrum real estate. Its desirability is expected to drive the cost of licenses way up, likely beyond the reach of small carriers.

While NTCA supports the licensing of spectrum according to CMAs, small license territories are not a panacea and disparate resources dictate that larger carriers will win out against smaller when the two are competing, *ceteris paribus*, for the same resource at auction. As the price for the most desirable spectrum blocks increases, carriers that are priced out of markets look to the next tier of spectrum for acquisition.

The Commission can look to the results of the AWS auction to see that the vast amount of spectrum was acquired by large carriers. While the FCC touts the fact that half of the winning bidders in the auction were small businesses, designated entities won only 215 out of the 1,122 licenses. In fact, the two most successful designated entities were actually affiliated with

[6] NTCA submits that the Commission should either set aside a 20 MHz block of paired 700 MHz spectrum or the Lower 700 MHz B block of 12 MHz paired spectrum.

incumbents Leap Wireless and U.S. Cellular. While 58 NTCA member rural telephone companies were eligible to bid in the auction, only 29 were ultimately successful. At the same time, industry giants T-Mobile, Verizon and Cingular accumulated more than $8 billion worth of new spectrum licenses.

Congress mandated that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services."[7] To achieve this goal, the statute requires the Commission to consider various procedures, thus ordering the Commission to design its auction procedures to ensure that designated entities have opportunities to obtain licenses and provide services.

In addition to this mandate, the statute sets forth various congressional objectives. For example, it provides that in establishing eligibility criteria and bidding methodologies the Commission shall "promot[e] economic opportunity and competition and ensur[e] that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women."[8]

In 1994, the Commission recognized that special provisions were necessary to address the major problem facing designated entities desiring to offer spectrum-based services – lack of

[7] 47 U.S.C. § 309(j)(4)(D).
[8] 47 U.S.C. §§ 309(j)(3)(B), 309((j)(4(A).

access to capital.[9] The Commission determined that broadband PCS licenses were expected to be auctioned for large sums of money in the competitive bidding process and it was necessary to do more to ensure that designated entities had the opportunity to participate in the auction. The Commission found that the steps were "required to fulfill Congress's mandate that designated entities have the opportunity to participate in the provision of PCS."[10] The Commission determined that if were to meet the congressional goals of promoting economic opportunity and competition by disseminating licenses among a wide variety of providers, that it must find ways to counteract barriers to entry.[11] The Commission adopted a series of measures designed to ensure small business participation in the auction and to encourage them to become strong, long-term bona-fide competitors.

The past 12 years have seen an erosion of Commission policies designed to foster designated entity participation in auctions. The Commission did not seek comment on the potential establishment of blocks of spectrum set aside for designated entities in this Notice. Gone are the installment payment option and the tax certificate program. While bidding credits remain, they cannot fully bridge the gap between the resources of a large carrier and a small one.

There is a serious imbalance in the participation of small businesses in the provision of spectrum-based services. Large wireless companies are becoming ever larger in this era of industry consolidation. The price of spectrum is increasing as the spectrum resource becomes scarce and broadband applications expand. The financial resources of large carriers appear unlimited and smaller players stand no chance when forced to compete at auction.

[9] Implementation of Section 309(j) of the Communications Act – Competitive Bidding, *Fifth Report and Order*, PP Docket No. 93-253, 9 FCC Rcd 5532, ¶ 96 (1994) (309(j) Order).
[10] *Id.*
[11] 309(j) Order, ¶103.

The Commission should revive the spectrum set-aside in the 700 MHz auction, thus ensuring that Section 309(j)'s Congressional objective is achieved and small businesses have the opportunity to provide service in the 700 MHz band.

VII. CONCLUSION

NTCA applauds the Commission's efforts in this proceeding. The fact that it is taking another look at the geographic territories according to which the remaining 700 MHz spectrum will be licensed leaves our members optimistic that the Commission recognizes the value of the spectrum and its potential to bring new and innovative wireless broadband service to rural America.

Rural carriers will have an opportunity to obtain the spectrum and provide rural service only if it is auctioned in a manner that permits them meaningful opportunity to participate in and win a spectrum auction. To achieve that objective, a sizable amount of spectrum should be auctioned according to CMAs. NTCA's members believe that a 20 MHz block of spectrum should be auctioned according to these small license territories. Rural carriers will need at least this amount of paired spectrum to support the wireless broadband applications of the future. A significant spectrum block will help rural carriers remain competitive with larger carriers who have amassed large swaths of spectrum. Although NTCA strongly advocates the auctioning of 20 MHz of paired 700 MHz spectrum according to CMAs, as a lesser alternative, NTCA would support the Rural Telecom Group's request that the Upper 700 MHz C Block and Block B in the Lower 700 MHz band be auctioned according to CMAs. However, even if spectrum is auctioned according to CMAs, small carriers cannot compete with large carriers interested in the same spectrum resource. In order to satisfy Congressional mandates that the Commission offer certain

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Rita H. Bolden, certify that a copy of the foregoing Comments of the National Telecommunications Cooperative Association in WT Docket No. 06-150, CC Docket No. 94-102, and WT Docket No. 01-309, FCC 06-114 was served on this 29th day of September 2006 via electronic mail to the following persons:

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