

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

In the Matter of )  
 )  
Promoting Investment in the 3550-3700 MHz Band ) GN Docket No. 17-258  
 )

**To: The Commission**

**JOINT COMMENTS  
OF THE  
NATIONAL RURAL TELECOMMUNICATIONS COOPERATIVE  
AND THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION**

The National Rural Telecommunications Cooperative (“NRTC”) and the National Rural Electric Cooperative Association (“NRECA”) hereby submit these Joint Comments in response to the Commission’s October 24, 2017 Notice of Proposed Rulemaking and Order Terminating Petitions (“NPRM”)<sup>1</sup> regarding the Citizens Broadband Radio Service (“CBRS”). As described herein, NRTC and NRECA support certain important revisions to the CBRS rules to promote service in rural America. Specifically, NRTC and NRECA support:

- **10-year terms for Priority Access Licenses (“PAL”) with a renewal expectancy and incentives to promote construction and substantial service;**
- **PAL boundary areas defined by a mix of census tracts and county lines;**
- **An aggregation limit of no more than three PALs;**
- **An allowance for the partitioning, disaggregation and leasing of PALs, but not as a substitute for the boundary area recommendations;**
- **Confidential treatment of CBSD registration information in most instances;**

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<sup>1</sup> Promoting Investment in the 3550-3700 MHz Band, *Notice of Proposed Rulemaking and Order Terminating Petitions*, GN Docket No. 17-258, FCC 17-134 (Rel. Oct. 24, 2017).

- **The retention of 80 MHz for general availability, consistent with the current rules.**

NRTC and NRECA believe these rules will encourage innovation while also incentivizing CBRS investment, particularly in rural America. NRTC and NRECA urge the Commission to adopt rule changes consistent with these Comments.

## **I. BACKGROUND**

### *A. NRTC*

Founded in 1986 by electric cooperatives, NRECA and the National Rural Utilities Cooperative Finance Corporation ("CFC"), NRTC is a non-profit cooperative association representing the interests of more than 1,500 rural utilities and affiliates in 48 states. NRTC's members consist of rural electric cooperatives, rural telephone cooperatives, and other small, independent, or family owned telephone companies. NRTC also serves as the manager and majority interest holder of NRTC LLC, a nationwide holder of 220 MHz spectrum. NRTC's mission is to ensure that state-of-the-art technology is available throughout rural America, just as in more urbanized areas. To that end, NRTC provides (or has provided) its members (and their rural constituent members) such services as direct to home television, high-speed Internet access via satellite, automated utility systems (including AMI and SCADA), wireless services and technologies, demand response and thermostatic solutions, utility scale solar, ISP, Internet and help desk services, and programming distribution rights for video providers. NRTC has partnered with other leading technology firms on many solutions, including DirecTV, Silver Spring Networks, Nest Thermostats, SoCore Energy, Verizon Wireless, and DISH Networks and Sling TV.

### *B. NRECA*

NRECA is the national service organization for more than 900 not-for-profit rural electric cooperatives that provide electric energy to approximately 42 million people in 47 states or approximately 12 percent of electric customers, including 327 of the nation's 353 "persistent poverty counties" (93%). Rural electric cooperatives serve 88% of counties of the United States. Rural electric cooperatives were formed to provide safe, reliable electric service to their member-owners at the lowest reasonable cost. NRECA's members rely on a wide variety of wireless communications for fixed and mobile telecommunications systems necessary to support and maintain mission critical rural electric transportation and distribution systems.

NRTC's and NRECA's members have a substantial interest in the CBRS. Recent spectrum allocations have favored the large commercial carriers and left rural providers and utilities with limited licensed broadband spectrum resources. In many instances, such entities rely on unlicensed spectrum as a fall back option, although operations on unlicensed frequencies are not protected from interference and congestion is an increasingly limiting factor in many areas. A number of NRTC's and NRECA's members are licensees in the current 3650-3700 MHz band, which provided needed flexibility for companies to access high-capacity spectrum on a shared basis with relatively low barriers to entry. Many of those companies are now exploring transitioning to the new Part 96 rules CBRS regime as a key tool to support service to rural residences and businesses and the electric grid. The Commission should ensure CBRS remains a viable option in rural areas.

## **II. NRTC AND NRECA SUPPORT RENEWABLE PRIORITY ACCESS LICENSES WITH TEN YEAR TERMS.**

NRTC and NRECA support the Commission's proposal to revise the rules "by increasing the PAL license term from three years to ten years and by eliminating the requirement that PALs

automatically terminate at the end of the license term.”<sup>2</sup> This approach would provide rural service providers and utilities the long-term certainty required to invest in mission critical solutions utilizing the CBRS spectrum. To ensure the longer license term does not lead to spectrum warehousing, a substantial service requirement should be required as a condition to license renewal.

Without some assurance that investment in the CBRS will be protected, rural telcos and utilities will be disinclined to deploy in the band. While some commenters argue that longer license terms could limit access to spectrum in rural areas,<sup>3</sup> NRTC and NRECA believe the longer term and renewability (in conjunction with the smaller license areas discussed herein) are necessary to increase rural investment.

A ten-year renewable license term will bring PALs in line with most other licensed bands in the U.S. This will provide certainty and consistency needed to encourage investment. NRTC and NRECA recognize that commenters propose varying license periods as short as three years. Many of these comments are driven by concerns regarding spectrum warehousing. NRTC and NRECA share these concerns and suggest a two-step approach. First, as mentioned above, the Commission should require PAL licensees to demonstrate substantial service by renewal. Second, to encourage rapid deployment, the Commission should provide an economic incentive to those PAL licensees that meet substantial service benchmarks early in their license term. For example, PAL licensees that provide substantial service by the end of the fourth year of their license term would receive an economic benefit such as bidding credits in the next CBRS PAL auction or a refund of a portion of their original auction payment for the now constructed

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<sup>2</sup> *NPRM*, at 6.

<sup>3</sup> *See NPRM*, at 7 (referencing Comments of WISPA, at 17, GN Docket No. 12-354 (filed July 24, 2017)).

licenses. Licensees would be subject to automatic discontinuance rules, so operations would be required to remain active once built. NRTC and NRECA believe this approach discourages warehousing and encourages rapid spectrum deployment. And finally, NRTC and NRECA concur (generally) that the 80 MHz of GAA availability creates an ability for non-PAL holders to still access the band, and likely also creates a more balanced negotiating environment to the extent non-PAL holders wish to acquire (via a lease or partition) additional licensed spectrum from PAL holders in their area.

### **III. NRTC AND NRECA SUPPORT GEOGRAPHIC LICENSE AREAS WITH COUNTY AND CENSUS TRACT BOUNDARIES, RATHER THAN PARTIAL ECONOMIC AREAS.**

NRTC and NRECA are pleased the Commission recognizes in the NPRM the importance of ensuring CBRS access in rural areas.<sup>4</sup> This is consistent with the requirement of Section 309(j)(3)(A) of the Communications Act of 1934, as amended, that spectrum auctions shall be designed to meet the objective of “development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas.”<sup>5</sup> This is particularly important for the 3.5 GHz band, which has been conceived under a framework that encourages the deployment of innovative wireless services.

With this background in mind, NRTC and NRECA are concerned that the NPRM reflects a posture by the Commission to move away from licensing PALs by census tracts and instead auction PALs by larger PEAs. NRTC and NRECA believe that larger geographic areas such as PEAs result in lower levels of service in rural areas. This is reflected in the results of deployment under many current spectrum bands. Licensees of larger geographic areas focus

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<sup>4</sup> See Draft NRPM at 2.

<sup>5</sup> 47 U.S.C. § 309(j)(3)(A).

deployment in the more densely-populated centers of such areas, leaving less densely-populated areas underserved. NRTC and NRECA are particularly concerned of this occurring in a frequency band with the propagation characteristics of 3.5 GHz, which may be favored by larger carriers to meet capacity requirements in urban areas as opposed to being used for wide area coverage in more rural areas. Offering licenses by PEA risks a result in which large rural areas are licensed, but not served, by carriers looking to provide service in urban cores. In addition, rural telcos and utilities will be at a disadvantage in trying to compete at auction when they only seek to purchase less populated areas that are included in larger licenses. The Commission echoes this concern, stating that PEAs “could foreclose smaller entities from participating in the PAL auction.”<sup>6</sup>

As a result, NRTC and NRECA support a hybrid approach to geographic license areas. Specifically, NRTC and NRECA recommend county boundaries for five PALs and census tract boundaries for two PALs. This blended approach is not novel, and, in fact, most recent Commission auctions, including the 700 MHz and AWS auctions, include a variety of geographic license sizes to encourage investment by a diverse pool of bidders. Making smaller license service areas available, though, will help ensure innovative 3.5 GHz band services are available to a larger number of Americans. NRTC and NRECA believe that a combination of county boundaries and census tract boundaries will strike a balance, allowing even the smallest operators to thrive.

**A. NRTC and NRECA support lowering the aggregation limit to three Priority Access Licenses to encourage additional auction participants.**

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<sup>6</sup> *NPRM*, at 9.

Currently, the CBRS rules include a 40 MHz spectrum aggregation limit. The Commission seeks comment on how this should be modified based on changes to geographic area boundaries.<sup>7</sup> NRTC and NRECA support lowering the aggregation limit to three PALs, or a total of 30 MHz. The current 40 MHz aggregation limit is large enough such that two carriers can acquire all PAL licenses in any given area. This does not promote competition or serve the public interest, but also allows undue market power for PAL licensees in secondary markets transactions. Lowering the aggregation limit to 30 MHz ensures that at least some PAL spectrum will be available for at least one additional CBRS participant across the U.S. This will encourage auction participation by smaller providers, including those in rural areas.

**IV. NRTC AND NRECA SUPPORT THE NOTION THAT PALS CAN BE PARTITIONED, DISAGGREGATED OR LEASED UNDER STREAMLINED AND CONSISTENT FCC REGULATIONS.**

NRTC and NRECA support full secondary markets rights for PAL licensees. NRTC and NRECA believe that as long as spectrum warehousing is controlled through adequate substantial service benchmarks, secondary markets transactions, including disaggregation, partitioning, and leasing, tend to result in more effective use of licensed spectrum. In fact, NRTC has been an active participant in the 220 MHz band in such disaggregation arrangements, not just leasing spectrum to our rural members in conjunction with their wireless solutions, but responsibly and cooperatively working with other entities such as Con Ed, Pepco, and PTC 220, to help those organizations provide solutions appropriate for them. NRTC and NRECA do not support the notion, however, that these schemes generally will create a wave of spectrum generosity amongst the nations' larger spectrum holders. There is little evidence to support the idea that just the easing of disaggregation will convince license holders to "share" their spectrum with third

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<sup>7</sup> *Id.*, at 11.

parties. NRTC and NRECA therefore strongly urge the commission to adopt our recommendation for PAL boundary areas as the best method to ensure that CBRS spectrum will be deployed in rural America, while at the same time allowing for the partitioning, disaggregation, and leasing of PAL licenses.

**V. NRTC AND NRECA SUPPORT THE FCC PROPOSAL THAT CBSD REGISTRATION INFORMATION NOT BE DISCLOSED PUBLICLY.**

NRTC and NRECA support the Commission’s proposal to prohibit SASs from disclosing publicly Citizens Broadband Radio Service Devices (“CBSD”) registration information that may compromise the security of critical network deployments or be considered competitively sensitive. NRTC and NRECA agree with other commenters that SASs will collect “extensive data regarding users’ network configuration, uses, and technical parameters”—data that “amounts to critical infrastructure data” that must be adequately protected to avoid competitive and cybersecurity concerns.”

The Commission has intentionally designed CBRS as a spectrum “sandbox” to foster innovation. The band very likely will be home to a mix of services including CMRS, private carrier, private internal, and consumer products offered on a fixed or mobile basis. Many of the operational details of these types of services are not currently available from any database. This is certainly true of the Part 15 license-exempt services and even true of geographically-licensed auctioned spectrum. Even the Commission’s ULS database contains limited information regarding site-based operations, particularly end user devices which are often authorized according to an area of operations around a center point. Publicly releasing CBSD operational details likely will chill investment due to competitive concerns and could in certain instances result in security concerns to critical infrastructure.



NRTC and NRECA recognize that certain potential users and services providers may require information regarding the spectral environment prior to investing in the band. To that extent, NRTC and NRECA recommend the Commission allow SAS providers to publish aggregate heat maps, showing the total amount of occupied and available spectrum in a given area. No information should be published regarding the operator identity or technical details regarding specific operations including the locations of base, fixed and remote stations. NRTC and NRECA believe this will allow potential users to effectively evaluate the amount of spectrum in a given area in order to make an investment decision.

**VI. NRTC AND NRECA DO NOT SUPPORT USING THE ENTIRE 150 MHZ OF CBRS SPECTRUM FOR PRIORITY ACCESS LICENSES.**

The Commission's current CBRS rules reserve 70 MHz of spectrum for PAL use in any given license area, leaving the remaining 80 MHz for GAA (General Authorized Access) use. T-Mobile requested the Commission remove this limitation from the rules, effectively designating the entire band for PAL use. In the NPRM, the Commission rejected T-Mobile's proposal, finding it to be an "eleventh hour" request that offered "no new and material information" that the Commission had not already considered in setting the 70 MHz maximum.

NRTC and NRECA fully support this decision. The Commission previously made clear that a key aspect of its CBRS rules is the shared access of licensed PAL and unlicensed GAA users. This unique concept fosters innovation, encourages efficient use of the band, and creates an environment conducive to a wide array of potential users and uses. But removing the 70 MHz PAL limit would undermine the basic premise of the CBRS rules and largely eliminate the availability of CBRS spectrum for many of the innovative uses the band was designed for. NRTC and NRECA strongly support the Commission's decision to reject T-Mobile's proposal.

**VII. CONCLUSION**

NRTC and NRECA respectfully request the Commission modify its CBRS rules consistent with the above comments. These changes will preserve the innovative spirit of the CBRS rules and promote the deployment of service to rural areas.

Respectfully submitted,

**NATIONAL RURAL  
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ASSOCIATION**

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