

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

<i>In the matter of</i>)	
)	
Improving Public Safety)	
Communications in the 800 MHz Band)	WT Docket No. 02-55
and Consolidating the 900 MHz)	
Industrial/Land Transportation)	
and Business Pool Channels)	
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**COMMENTS OF THE
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION**

SUMMARY

The National Rural Electric Cooperative Association (“NRECA”) submits comments in the above captioned proceeding¹ to convey our concerns regarding the effect that the proposed reallocation of the 800 MHz band in the NPRM would have on the critical operations of NRECA members and the communities they serve.

NRECA is the not-for-profit, national service organization representing 930 rural electric systems – 866 distribution cooperatives and 64 generation and transmission cooperatives – serving 35 million customers, or approximately 12 percent of the U.S. population. To put the size of our systems in perspective to the rest of the electric industry, consider that the average number of consumers served by an electric

¹ See *Improving Public Safety Communications in the 800 MHz Band and Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, Proposed Rule*, WT Docket No. 02-55, 67 Fed. Reg. 16,351 (Apr. 5, 2002) (NPRM).

cooperative is 11,000, where an investor-owned utility averages 400,000.² Rural electric cooperatives are located in 46 states, in 2,500 of the nation's 3,128 counties, and their service areas cover three quarters of the nation's landmass, including some of the nation's most rural and remote areas. NRECA's members depend upon reliable communications systems to safely operate, monitor, control and repair their electric systems. At least 90 of NRECA's members currently operate in the 800 MHz spectrum band. To date, there are no reported incidences in which electric cooperatives' wireless networks have caused harmful interference to public safety operations. In fact, a number of electric cooperatives successfully operate shared systems with police, fire and rescue, and other public safety units.

NRECA's members are a part of the nation's critical infrastructure, providing essential electric service to more than 13 million residential, commercial and industrial customers, including "human needs" customers — our nation's schools, churches and hospitals. The Small Business Administration's ("SBA") size standards define an electric "utility" firm as "small" if, including its affiliates, it is primarily engaged in the generation, transmission, and/or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt hours.³ Nearly all of NRECA's members are considered "small" as defined by the SBA. NRECA urges the Commission to consider the unique status of not only its members, but similarly situated 800 MHz licensees as well, when it considers the impact of any relocation and reimbursement schemes for displaced licensees. Specifically, we ask the Commission to ensure that the essential services provided to consumers by rural electric cooperatives are

² NRECA Strategic Analysis, "Electric Utility Comparisons" (Feb. 2002).

³ 13 C.F.R. § 121.201.

not unnecessarily disrupted or impaired by any reallocation of the 800 MHz spectrum band and that displaced licensees be fairly compensated if the Commission determines that retuning or relocation are the only viable options. Therefore, we urge that the Commission reject Nextel's proposal and consider alternative proposals that will better address signal interference where it is occurring, minimize disruption to incumbents, and appropriately compensate those required to retune or relocate to other frequencies should that be deemed necessary.

DISCUSSION

I. RURAL ELECTRIC COOPERATIVES SUBMIT THAT BOTH PUBLIC SAFETY AND THE NATION'S CRITICAL INFRASTRUCTURE PROVIDERS NEED ADEQUATE SPECTRUM THAT IS FREE FROM HARMFUL INTERFERENCE TO ENSURE THE CONTINUED PROVISION OF CRITICAL SERVICES.

NRECA fully supports the Commission's efforts to ensure adequate spectrum for public safety operations that is free from harmful interference. Electric cooperatives, like other critical infrastructure providers, often work closely with public safety systems. Particularly in times of emergencies and natural disasters, electric utilities are among the "first responders" to ensure that power is maintained to public safety units' headquarters, to traffic signals, and other facilities that are necessary to protect the safety of the public. As the recent study by the National Telecommunications and Information Administration ("NTIA") notes, "energy, water and railroad services are considered vital components of the nation's critical infrastructure" and "the use of wireless networks [is] one of the most practical and efficient ways to supervise, control, and monitor these essential services on

a daily basis.”⁴ The Commission’s Wireless Telecommunications Bureau has specifically noted the importance of private wireless systems to critical infrastructure providers and their close working relationship with public safety. A Bureau paper cites that, “Utility companies, railroad and other transportation providers, and other infrastructure-related companies, use their systems to provide vital day-to-day control of their systems (including both control and monitoring, as well as routine maintenance and repair), and also to respond to emergencies and disasters – often working with public safety agencies.”⁵ Therefore, any proposed reallocation of the 800 MHz spectrum should be considered in view of the critical services that could be disrupted.

II. THE REGULATORY FLEXIBILITY ACT, AS AMENDED BY THE SMALL BUSINESS REGULATORY ENFORCEMENT FLEXIBILITY ACT, REQUIRES THE COMMISSION TO CONSIDER ALTERNATIVES THAT REDUCE ECONOMIC IMPACTS ON SMALL ENTITIES.

A. The majority of electric cooperatives are “small entities” entitled to regulatory flexibility.

In the NPRM, the Commission notes that “Neither the Commission nor the SBA has developed a definition of small businesses directed specifically toward these licensees” referring to Business, Industrial, Land, Transportation and SMR licensees.⁶ The Commission then concludes, “Therefore, the applicable definition of small business is the definition under the SBA rules applicable to radiotelephone (wireless) companies. This provides that a small business is a radiotelephone company employing no more than 1,500 persons” and that all or nearly all 1,178 such firms would meet the SBA

⁴ Department of Commerce, National Telecommunications and Information Administration, “Current and Future Spectrum Use of Spectrum by the Energy, Water and Railroad Industries,” (Jan. 2002) at pp. 7-1 – 7-2.

⁵ Michele Farquhar, et al. “Private Land Mobile Radio Services: Background.” Wireless Telecommunications Bureau Staff Paper, FCC (1996) at p. 3.

⁶ NPRM, Appendix Two, Initial Regulatory Flexibility Analysis at p.59-60.

definition.⁷ According to the SBA's size standards for electric utilities, most of NRECA's members are small entities⁸, and nearly all of the identified NRECA members that are 800 MHz licensees or users⁹ are small entities. Thus, the Commission's consideration of alternatives that will minimize the significant economic impact the NRPM would have on small entities is of particular interest to NRECA.

B. The alternative proposals discussed in the NPRM are either not feasible or still impose significant economic burdens on rural electric cooperatives.

As the Commission correctly notes in the NPRM¹⁰, for some 800 MHz incumbents, it will not be feasible to remain on the 800 MHz band on a secondary, non-interference basis as proposed by Nextel. The provision of electric service, including restoration of service and continuous monitoring for system failures and irregularities, among other things, requires continuous communications service. Further, because electric utilities work so closely with public safety in responding emergencies, storms, and other natural disasters, they are very likely to have the greatest need of their 800 MHz band communications systems at the same time. Therefore, this "alternative" suggested by Nextel, and discussed by the Commission in its Initial Regulatory Flexibility Analysis¹¹, is not a viable alternative for rural electric cooperatives or other critical infrastructure providers.

The second specific alternative for minimizing the economic impact on small

⁷ Id.

⁸ The Federal Energy Regulatory Commission has adopted the SBA's definition of small electric utilities. See Order No. 888, FERC Stats. & Regs. 31,896-97 and *Southern Illinois Power Cooperative*, 80 F.E.R.C. ¶ 61,341 (1997), footnote 16.

⁹ Only three electric cooperatives that are 800 MHz licensees do not meet the SBA's small entity definition. These are generation and transmission cooperatives that dispose of more than 4 million MWH annually.

¹⁰ NPRM at ¶ 34, "For example, it would not appear advisable to require a station associated with the restoration of electrical power service to precipitously discontinue service."

¹¹ NPRM at Appendix Two, Initial Regulatory Flexibility Analysis, p. 60.

entities that the Commission discusses in the NPRM is the NAM/MRFAC proposal.¹² The NAM/MRFAC proposal would allow electric cooperatives and other incumbents to remain in the band, with retuning likely required. However, depending upon what frequency within the 800 MHz band an incumbent is to move versus where they are located now, equipment retuning may not be possible. Where retuning is technically feasible, this alternative appears to be less detrimental economically because a wholesale replacement of communications equipment may not be necessary. For those NRECA members who were able to provide us with estimates within the comment timeframe, the cost of retuning rather than replacing equipment would be roughly between \$2,000 and \$30,000, depending on the size of the system.

NRECA is also aware of and has reviewed a number of other draft proposals being circulated by various 800 MHz incumbent licensees. A number of these proposals would allow incumbents to remain in the 800 MHz band, but move to discrete pools designed to distance certain types of licensees from public safety to reduce the risk of interference. In all such proposals, there are associated costs with retuning and coordination. NRECA could support alternative proposals, such as the NAM/MRFAC plan or those being offered by others, that would minimize costs by allowing 800 MHz incumbents to remain in that band at a frequency that retuning only can accommodate. At this time, however, NRECA believes that such proposals need further vetting to determine whether such moves will actually resolve the problem of interference that the Commission seeks to remedy in this NPRM. Overall, NRECA believes that other alternatives could obviate the need for relocation and better meet the Commission's goals in this proceeding, as we discuss in more detail below.

¹² *Id.*

III. THE REALLOCATION OF THE 800 MHz SPECTRUM TO AVOID INTERFERENCE IS A “SOLUTION IN SEARCH OF A PROBLEM” IN MOST IF NOT ALL OF THE AREAS SERVED BY RURAL ELECTRIC COOPERATIVES.

NRECA has not found any instances of interference to a public safety system caused by a rural electric cooperative’s use of the same 800 MHz band frequencies. NRECA has learned that a number of rural electric cooperatives operate shared systems, that is, their 800 MHz communications systems are also utilized by local public safety units. They are operating quite harmoniously and without signal interference problems. For example, East River Electric Cooperative operates a shared 800 MHz system that supports 11 of its member electric distribution co-ops as well as rural telephone cooperatives, local water systems and public safety users in 41 counties in eastern South Dakota and nine counties in western Minnesota. Clear Talk, a joint venture of three rural electric cooperatives – Corn Belt Energy, EnerStar Power and Shelby Electric Cooperative, operates an 800 MHz trunked radio system offering service to 4,000 plus customers including police units in central Illinois. Jones Onslow Electric Membership Corporation in Jacksonville, North Carolina operates its 800 MHz system utilizing seven tower sites on which it shares space with the North Carolina Highway Patrol’s mobile data system. Given these facts, it appears that the Commission’s initiative in this NPRM is “a solution in search of a problem” with regard to the communities in which rural electric cooperatives provide service.

NRECA appreciates that continued use of the 800 MHz band by such a wide variety of users creates an opportunity ripe for further congestion, which could create interference for rural electric cooperatives’ communication systems. At this point,

however, we have not found any instances where such interference is currently a problem for rural electric cooperatives. In fact, a number of our members have indicated that despite heavy deployment of cellular sites within their service territories, such as along interstate highways, they are not experiencing interference problems.¹³ Therefore, NRECA challenges Nextel's assumption that all the other incumbents stand to benefit from the reallocation, and therefore should pay the costs of relocating their own systems as well as those of relocating the 800 MHz public safety stations.¹⁴

As stated above, NRECA and its members fully support the Commission's efforts to address harmful signal interference that may hamper public safety operations. However, we suggest that the Commission further study whether such interference is a site-specific problem, and then consider solutions that are more targeted, rather than a band-wide reallocation that by its very nature will unnecessarily bring in other 800 MHz users where no problem exists. Moreover, the Commission should not use a sledgehammer to kill a fly. The fly may be disposed of, but the risk of collateral damage from the hammer, in this case unnecessary costs and disruption to displaced 800 MHz incumbents, is great. As discussed below in the next section, NRECA suggests that a clearer understanding of the root of the problem, that is, the source or sources of interference, is needed. Further study may suggest that a different approach, such as mandated and enforced used of best practices and technological solutions, or flexibility for users to negotiate their own solutions, is preferable to wholesale reshuffling of the 800 MHz and possibly also the 700 and 900 MHz bands. Such an approach may more

¹³ Cooperatives in states including Georgia, Illinois, Louisiana, and South Dakota have told NRECA that despite heavy cellular deployment in their service areas, they are not experiencing signal interference problems.

¹⁴ NPRM at ¶ 38.

effectively and efficiently address the problem and achieve the Commission's goal of "reducing or eliminating interference without burdening existing licensees."¹⁵

IV. THE NEXTEL REALLOCATION PROPOSAL IS UNNECESSARILY COSTLY AND DISRUPTIVE AND MAY NOT RESOLVE A CONSIDERABLE AMOUNT OF THE INTERFERENCE WITH PUBLIC SAFETY THAT THE COMMISSION SEEKS TO ADDRESS.

Through its comments, NRECA endeavors to provide the Commission with an understanding of the difference in the cost burden associated with the Nextel reallocation proposal for its members. Not only are not-for-profit electric cooperatives, disproportionately impacted due to their status as small entities,¹⁶ all the costs associated with moving to another spectrum band will ultimately be paid by the electric cooperative consumers. Electric cooperatives cannot simply reduce profits or shareholder dividends to pay the unanticipated costs of replacing their wireless communications system as an investor-owned company might. All electric cooperative operating expenses are recovered in the costs for electricity charged to electric co-op consumers' on their utility bills. Therefore, any new cost imposed by the Commission for the realignment of the 800 MHz band will be borne by the electric consumer.

NRECA has collected cost data from its members that would be associated with a move to the 700 or 900 MHz bands. Such a move would require a total replacement of the communications system, since current 800 MHz communications equipment is not configured to operate on the 700 or 900 MHz frequencies. The cost for replacement equipment and the man hours required for the system replacement vary depending on the size of the system. The initial cost data that NRECA was able to collect from its

¹⁵ NPRM at ¶ 20.

¹⁶ See footnote 6.

members indicates that replacement costs could range from a low of \$65,000 for the smallest systems, to \$7 million for one of our generation and transmission members, to more than \$15 million for the three Illinois cooperatives offering a trunked radio system service. Initial estimates from NRECA members who furnished us with preliminary cost data indicate that the average cost for an electric cooperative to replace their communications equipment would be approximately \$400,000. For a number of NRECA's members, those replacements are for equipment that has only been recently installed. Some systems are brand new, and others are certainly well short of their expected useful life. Further, unlike most individual consumers, who apparently are willing to replace their cellular phones with a newer model every 18 months, electric utilities make longer-term investments in their communications equipment. The majority of electric cooperatives are borrowers from the U.S. Rural Utilities Service, which permits a five to eight percent annual depreciation for communications equipment.¹⁷ Therefore, many electric cooperatives would depreciate their 800 MHz radio system investments on a 12 to 20-year cycle.

NRECA is aware that there is research that suggests public safety interference may be limited to a relatively small number of sites, which are predominantly located in urban areas. Other studies suggest that the cause of interference may not be primarily within the interleaved channels where public safety and other users operate adjacent to cellularized systems, as Nextel suggests. Rather, receiver overload by public safety systems' equipment, intermodulation, and out-of-band emissions have been cited as the causes of interference. If this is true, then Nextel's proposal appears to do little to address a significant part of the underlying interference problem. The Commission is

¹⁷ See RUS Bulletin 183-1, "Depreciation Rates and Procedures."

then faced with the dilemma of which study to believe. It would seem advisable then that if the Commission desires to reach its stated goal of best remedying interference to 800 MHz public safety systems¹⁸ then further, independently verified, study of the interference problems may be needed.

V. ALTERNATIVE PROPOSALS THAT MINIMIZE DISRUPTION TO INCUMBENT 800 MHZ LICENSEES, PROVIDE ADEQUATE COMPENSATION IF RELOCATION IS REQUIRED, AND WHICH ADEQUATELY ACCOMMODATE CURRENT AND FUTURE SPECTRUM USE BY CRITICAL INFRASTRUCTURE PROVIDERS SHOULD BE PURSUED.

The Commission notes in the NPRM, that parties may be in compliance with Commission rules yet harmful interference still occurs.¹⁹ NRECA submits that, as a practical matter, if one were interfering with another's use of spectrum, such interference should constitute noncompliance. We note that Chairman Powell recently remarked that one of the elements that is necessary for effective spectrum management is "strong enforcement tools against harmful interference."²⁰ We agree that stronger enforcement of existing rules may help to address certain instances of interference. NRECA would support the use of technical solutions and formal Commission initiatives that would remedy harmful interference where it occurs. These initiatives should allocate costs only to those interfering parties.

Chairman Powell has also indicated his support of greater use of market mechanisms by the Commission.²¹ NRECA is also receptive to the idea of using market-based mechanisms, such as providing flexibility in Commission rules to allow individual

¹⁸ NPRM at ¶ 2.

¹⁹ Id. at ¶ 15.

²⁰ Remarks of Commission Chairman Michael Powell at the NTIA Spectrum Summit, April 4, 2002.

²¹ Id.

800 MHz licensees to find solutions themselves, such as channel swapping with other licensees, to address specific, localized incidences of interference. This would permit those who are causing interference and those who are affected by such interference, to negotiate a solution whereby costs and benefits may be equitably distributed without involving other, unaffected and non-interfering parties. NRECA recognizes that current spectrum licenses and Commission rules would need to be modified to provide parties with such flexibility. We submit that further use of best practices and technological solutions also may help to address problems with harmful interference, as the Commission suggests in the NPRM section entitled “Complimentary Solutions.”²²

Whether the Commission ultimately determines that a rebanding of the 800 MHz spectrum, technological and market-based alternatives, or some combination of these is required to resolve the interference problem, the Commission must ensure that its actions preserve the ability to meet the current and future spectrum needs of critical infrastructure, including electric cooperatives. It is anticipated that as technology advances and equipment becomes available, widespread migration to digital wireless communications systems will take place. In the wake of the September 11 tragedy, critical infrastructure providers are investigating various system upgrades to improve reliability and security. To increase the efficiency of their operations and stay competitive in a restructuring industry, electric utilities are investing in communications system upgrades that will automate functions and thereby improve efficiency. These beneficial changes must not be unintentionally deterred or rendered useless by changes the Commission may require in this proceeding.

²² NPRM at ¶¶ 73-79.

VI. CONCLUSION

NRECA asks that the Commission: (1) ensure the critical functions performed by the nation's rural electric cooperatives and other critical infrastructure providers are not unnecessarily disrupted by its efforts to reduce harmful public safety interference in the 800 MHz spectrum band, and (2) that fair compensation be made to the affected licensees if required to relocate or retune. Commissioner Abernathy recently expressed her concerns regarding minimizing costs and disruption and not wanting to force unreimbursed relocations upon parties that do not stand to benefit from the move.²³ We concur with her position that essentially a "one size fits all" approach to resolving the public safety interference problem may unwittingly create undue burdens on some 800 MHz incumbents with little or no concomitant benefit to them. This is precisely the situation in which electric cooperatives find themselves – being asked to solve a problem they did not create and to pay for that solution as well when it will not benefit the communities they serve.

We urge the Commission to follow Commissioner Abernathy's guiding principles and thereby reject the Nextel proposal as unduly costly and disruptive to incumbent 800 MHz licensees. We believe the Commission should consider moving forward with further, independent study of the causes and incidences of public safety signal interference and an exploration of alternative solutions. Any measures that are ultimately adopted to address public safety interference must also: (1) minimize any disruption to electric cooperatives and other incumbent licensees of the 800 MHz spectrum band, and

²³ NPRM, Separate Statement of Commissioner Abernathy and speech, "A Principled Approach to LMCC Spectrum Management" to the LMCC National Conference on April 19, 2002.

(2) fairly compensate non-interfering parties for the associated costs if mandated to relocate or retune. We request that the Commission consider the essential services being provided by electric cooperatives, and their status as not-for-profit and small entities, as it proceeds with this rulemaking and conducts its required Regulatory Flexibility Act review of the burdens associated with the proposals for reallocation of the 800 MHz band in this proceeding.

Respectfully submitted,

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