

BEFORE THE
Federal Communications Commission
WASHINGTON, D.C. 20554

In the Matter of)
)
)
Improving Public Safety Communications)
in the 800 MHz Band) **WT Docket No. 02-55**
)
Consolidating the 900 MHz)
Industrial/Land Transportation and)
Business Pool Channels)
)
TO: The Commission

REPLY COMMENTS OF
ENTERGY CORPORATION AND ENTERGY SERVICES, INC.

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EXECUTIVE SUMMARY

The comments submitted in this proceeding support five primary propositions that should guide the FCC's decision. First, commenters agree that a viable and appropriate solution may not be formulated until the nature and extent of the problem is understood more fully. Additional investigation and study into both the nature of the interference and the effectiveness of the proposed solutions is absolutely necessary.

Second, commenters concur that the proposals offered in the *NPRM* are fatally flawed. Commenters nearly universally reject these proposals as vague, unjustifiably costly and overly burdensome. This is particularly true with respect to the Nextel proposal. Commenters argue that the Nextel proposal does not offer a viable funding plan, and the alternate bands proposed for evicted incumbents are neither comparable nor available. Furthermore, secondary status in the 800 MHz band is unacceptable for B/ILT licensees, and particularly critical infrastructure industries. Nextel's "clarification" does not alleviate this concern. Entergy and many others also believe that the Nextel plan does not adhere to Commission precedent establishing the requirement for full reimbursement for the relocation expenses of incumbents forced to move in this type of a situation. The ripple effect caused by this far-reaching proposal is also problematic, and does not offer any appreciable benefit to any party except Nextel, and the plan fails to offer any indication of how the logistics of such a massive relocation could be accomplished. Finally, Nextel's allegation that B/ILT would be the "easiest" to move is unsupported. B/ILT systems, and particularly utility systems, are vast, complex networks that support mission critical communications that can be of life or death significance. The NAM plan,

the FCC plan, and those plans submitted in the comment round that offer variations on the in-band realignment theme are also defective.

Third, parties concede that the realignment plans proposed will *not*, in themselves, eliminate interference. Logic and economics compel the conclusion that, if additional or increased technical solutions will be required, these measures must be implemented *first* and given an opportunity to work. This simple step may obviate the need for a massively disruptive and costly rebanding scheme, and can be implemented on a proactive basis.

Fourth, technical solutions, when implemented pursuant to a market-based plan, offer the best way to achieve the goal of relieving interference while avoiding disruption. Several basic rule changes can provide incentives to parties to negotiate mutually satisfactory solutions without unnecessarily affecting other licensees. The regulatory flexibility this plan provides would also enable targeted realignment where necessary by permitting spectrum swaps. Market-based mechanisms also conform to Commission precedent, which requires the interfering party to resolve interference and the cost-causer to fund the solution.

Fifth and finally, after technical solutions supported by market based mechanisms have been implemented, if the Commission determines that reallocation is ultimately required, Entergy and others support the proposition that the most logical and equitable avenue is to relocate public safety to the 700 MHz band. As the Commission has recently determined to delay the auction of these frequencies, this proposal is a viable option with a significant amount of support across industry lines. Of the realignment proposals submitted, this plan has the greatest potential both to minimize disruption to incumbents and to provide adequate funding to fully compensate displaced licensees.

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Pursuant to section 1.1415¹ of the rules of the Federal Communications Commission, ("Commission" or "FCC"), Entergy Corporation and Entergy Services, Inc. (collectively "Entergy") respectfully submit their Reply Comments in the above-captioned proceeding.²

I. INTRODUCTION

Entergy submitted comments in this proceeding urging the Commission to adopt market-based and technological solutions to resolve the interference being caused to public

¹ 47 C.F.R. § 1.1415 (2001).

² In re Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, WT Docket No. 02-

safety licensees. Entergy argued that the solutions proposed in the *NPRM* were inadequate and the likelihood of their success was uncertain. The comments submitted largely support Entergy's views that the FCC should forego the costly and unnecessary realignment proposals presented in the *NPRM* and in various comments, and should adopt the market-based solution outlined in Entergy's initial comments.

A. The Comments Support Five Primary Propositions

Of the many opinions generated in the comments submitted in this proceeding, five primary propositions emerge as consistent themes upon which commenters from the public safety and government sector, critical infrastructure industries, small SMR, commercial service and equipment manufacturing industries largely agree. Based on the strength of support for these propositions and the benefit to the public interest they will provide, the Commission's decision should be guided by these five recommendations.

First, commenters agree that a viable and appropriate solution may not be formulated until the nature and extent of the problem is understood. Additional investigation and study into both the nature of the interference and the effectiveness of the proposed solutions is absolutely necessary. Second, commenters concur that the proposals offered in the *NPRM* are fatally flawed. Commenters nearly universally reject these proposals as vague, unjustifiably costly and overly burdensome.

Third, the realignment plans proposed will *not*, in themselves, eliminate interference. Common sense and economics compel the conclusion that, if additional or increased technical solutions will be required, these measures must be implemented *first*

55, *Notice of Proposed Rulemaking*, FCC 02-81 (rel. March 15, 2002), 67 Fed. Reg. 16351 (April 5, 2002) ("*NPRM*").

and given an opportunity to work. This simple step may obviate the need for a massively disruptive and costly rebanding scheme. Fourth, technical solutions, when implemented pursuant to a market-based plan, offer the best way to achieve the goal of relieving interference while avoiding disruption. Several basic rule changes can provide incentives to parties to negotiate mutually satisfactory solutions without unnecessarily affecting other licensees. This also conforms to Commission precedent, which requires the interfering party to resolve interference and the cost-causer to fund the solution.

Fifth and finally, after technical solutions supported by market based mechanisms have been implemented, if the Commission determines that reallocation is ultimately required commenters support the proposition that the most logical and equitable avenue is to relocate public safety to the 700 MHz band. As the Commission has recently determined to delay the auction of these frequencies, this proposal is a viable option with a significant amount of support across industry lines.

B. Dissatisfaction With Nextel, NAM, And The FCC's Plans Is Evident By The Flood Of New Proposals

A plethora of new proposals have been submitted for the Commission's consideration. While they are disparate in their recommendations, one fact that can be inferred from the sheer volume of alternative proposals is the general dissatisfaction with the three proposals presented in the *NPRM*. Several commenters recommended variations on the NAM plan consisting of some sort of in-band realignment. These plans, however, suffer from the same shortcomings as the NAM plan, in that they are unlikely to remedy the interference problem and they do not adequately account for a method to fund their implementation.

Of the new solutions offered in the initial round of comments, however, two appear to provide the relief required by the public safety community and effectively to minimize disruption both to public safety and the other 800 MHz incumbents. First, the market-based solutions recommended by Entergy and several other commenters have the potential to both correct the current interference problem and to deter future behavior that would increase the potential for additional interference. By establishing a framework within which market participants can operate, and establishing flexible licensing rules to facilitate creative solutions, no licensee would be required to move involuntarily and funding would be fully available. Second, if it is later determined that reallocation is necessary, the most viable and equitable option appears to be relocating public safety to the 700 MHz band. This option would provide additional spectrum in a band in which public safety already has a significant allocation. In addition, the funding mechanism proposed would not place a burden on licensees who are not causing interference and would not benefit from the realignment.

II. A VIABLE AND APPROPRIATE SOLUTION CANNOT BE FORMULATED UNTIL THE NATURE AND EXTENT OF THE PROBLEM IS UNDERSTOOD

Quite simply, an effective and appropriate solution to public safety interference cannot be developed unless the Commission is fully versed in the nature and scope of the problem. The smattering of interference reports gathered to date do not represent a scientific measure of the types or prevalence of public safety interference, as no safeguards exist to ensure that the information is representative of the universe of actual problems.³

³ The City of Baltimore, for example, suggests that interference issues may have been overstated by commercial parties who "see an opportunity to gain valuable blocks of

Moreover, even if the limited information available accurately represents the sum of the possible interference variations, commenters point out that the source of the interference is still disputed. Finally, many parties agree that it is not clear that the restructuring plans proposed would effectively eliminate the interference that has been identified to date. As such, additional investigation is necessary with respect to the types of interference and the prevalence of each type, as well as the effectiveness of the proposed solutions.

A. Many Commenters Agree That The Scope And Nature Of The Problem Is Not Well Known.

Many commenters suggest that the Commission does not yet have an adequate, objective understanding of the scope and nature of the public safety interference problem. The Commission's summary of the problem "is just a list of categories of interference causes, and is too general to be sufficient as a statement of the problem as a basis for a remedy."⁴ As noted by Motorola, "[i]nterference is a very complex issue and is often caused by numerous factors."⁵ This statement is borne out by the differences in experience chronicled by commenters: while some assert that intermodulation is the primary type of interference being encountered,⁶ others have found that signal overload is the primary

spectrum." Comments of the City of Baltimore, WT Docket No. 02-55 at 6 (May 6, 2002) ("*City of Baltimore Comments*").

⁴ Comments of Kenwood Communication Corporation, WT Docket No. 02-55 at 3 (May 6, 2002). ("*Kenwood Comments*").

⁵ Motorola at 10 Comments of Motorola Inc., WT Docket No. 02-55 at 10 (May 6, 2002) ("*Motorola Comments*").

⁶ Promoting Public Safety Communications -- Realigning the 800 MHz Land Mobile Radio Band to Rectify Commercial Mobile Radio - Public Safety Interference and Allocate Additional Spectrum to Meet Critical Public Safety Needs at 21 (Nov. 21, 2001) ("*Nextel White Paper*").; Comments of the Public Safety Wireless Network, WT Docket No. 02-55 at 7 ("*PSWN Comments*").

problem.⁷ Taken as a whole, the comments support the proposition that additional investigation is necessary and prudent.

Even given the information supplied in the Comment phase of this proceeding, the record does not reflect an adequate understanding of the prevalence of the various forms that interference takes. As Kenwood Communications notes, the "extent to which each of these problems contributes on a relative basis, and the individual contributors to the overall increase in interference to Public Safety and other services at 800 MHz have not been determined or thoroughly studied on a technical basis."⁸

Public safety licensees themselves even concur that additional information must be gathered before the FCC rushes headlong down the path of realignment. Baltimore County, for example, urges the Commission to "investigate and develop the full facts with regard to interference to public safety communications, which will likely vary from jurisdiction to jurisdiction."⁹ The State of Florida also finds that the Commission should "thoroughly investigate" before acting.¹⁰

⁷ Comments of the City of Ft. Lauderdale, WT Docket No. 02-55 at ¶ 27 (May 3, 2002) ("*Ft. Lauderdale Comments*").

⁸ *Kenwood Comments* at 3.

⁹ *City of Baltimore Comments* at ¶¶ 4, 14 ("The interference problem exists, but its severity varies from area to area, and its cause may also vary.").

¹⁰ Comments of the State of Florida, WT Docket No. 02-55 at 1 (May 6, 2002) ("*Florida Comments*"); see also Comments of Dallas Area Rapid Transit, WT Docket No. 02-55 at 3 (May 6, 2002) ("*DART Comments*")("DART urges a thorough study of all costs involved in relocating users and a thorough engineering study of all possible alternatives, independent of telecommunications industry representatives, before a final plan is implemented.").

B. Commenters' Opinions Vary Widely As To The Effect That The Plans Presented Would Have On The Types Of Interference Believed To Exist

Even if the types and sources of interference have been adequately documented and identified, commenters disagree on whether or not realignment would have the remedial effect claimed. Nextel claims that its rebanding plan will reduce or eliminate the various types of interference.¹¹ Other commenters, however, refute this assertion. Motorola, for example, states that while rebanding could reduce interference caused by sideband noise and out-of-band emissions, "rebanding of the 800 MHz band alone would have less impact on eliminating [intermodulation] interference."¹² This statement is particularly striking given that it is coming from Nextel's own equipment supplier. Cingular also finds that even if Nextel's rebanding were implemented, "there would still be receiver overload, intermodulation products would still be generated, and out-of-band emissions would only be improved marginally."¹³

In sum, the outlook varies widely on this important point and there are "significant differences of opinion on this subject among respected engineering sources."¹⁴ The fact that opinions are so disparate compels the conclusion that additional, independent scientific evaluation should be implemented before a reallocation is considered.¹⁵ The

¹¹ Comments of Nextel Communications, Inc., WT Docket No. 02-55 at 19-25 (May 6, 2002) ("*Nextel Comments*").

¹² *Motorola Comments* at 17-18.

¹³ Comments of Cingular Wireless, LLC and ALLTEL Communications, Inc., WT Docket No. -2-55 at 13 (May 6, 2002) ("*Cingular Comments*").

¹⁴ Comments of American Mobile Telecommunications Association, Inc., WT Docket No. 02-55 at 7 (May 6, 2002) ("*AMTA Comments*").

¹⁵ *See also*, Comments of International Association of Fire Chiefs, Inc. and International Municipal Signal Association, WT Docket No. 02-55 at 4 (May 6, 2002) ("*Association of Fire Chiefs Comments*") (urging the Commission to conduct empirical research to

reality "is that there is time for reflection and investigation to determine the true nature and extent of the problem as well as to investigate possible solutions to the problem."¹⁶

Entergy urges the Commission to initiate such an investigation and ensure that the path it chooses actually leads to a resolution.¹⁷

C. Unless It Can Be Shown That Interference Will Be Definitively Resolved, The Massive Expense And Disruption That Rebanding Would Cause Cannot Be Justified

If anything, the comments and interference reports to date confirm that each instance of interference appears to be unique, both in the type or combination of types of interference present and the remedy required. Unless it is clear that public safety interference will be definitively resolved, the massive expense and disruption that rebanding would cause cannot be justified. AMTA states that the "record is devoid of data to support a determination that separating public safety from interfering CMRS systems by some specific...amount of spectrum will, in fact provide genuine interference relief sufficient to warrant the extraordinary cost and disruptions to public safety users and others required to implement such a plan."¹⁸ Otherwise, the Commission may find itself in the

determine the relative effectiveness of the solutions proposed); *Kenwood Comments* at 11 ("The assumptions made in these restructuring proposals should be tested in advance.").

¹⁶ Comment of Skitronics, LLC, WT Docket No. 02-55 at 21 (May 6, 2002) ("*Skitronics Comments*").

¹⁷ The Commission's recently initiated Spectrum Policy Task Force, which references the importance of critical infrastructure protection, may provide a potential forum for this issue. Alternatively, a similar task force approach specific to this issue may be appropriate. *See*, Spectrum Policy Task Force Seeks Public Comment on Issues Related to Commission's Spectrum Policies at 6, ET Docket No. 02-135 (rel. June 6, 2002).

¹⁸ *AMTA Comments* at 6.

unenviable position of having imposed billions of dollars in costs and widespread disruption "without even making a substantial dent in the interference problem."¹⁹

Entergy concurs with the International Association of Fire Chiefs, which states frankly that "[n]either the public safety community, the Commission, the other interested and affected parties nor the public at large can afford to embark upon a band restructuring proposal which will cost well in excess of One Billion Dollars and entail substantial disruption to communications system operation, however implemented, without the assurance that the plan adopted in fact constitutes a solution to the interference problem."²⁰ With the current record, the Commission does not have such assurance.

III. THE REBANDING CURRENTLY PROPOSED WILL NOT IMMEDIATELY SOLVE THE PROBLEM

Even Nextel concedes that reallocation will not solve public safety interference in itself, but would also require "complementary measures" or additional technical solutions, and asserts that such measures should be implemented simultaneously.²¹ Nextel fails to explain, however, *why* realignment and complementary measures must occur simultaneously rather than sequentially, stating only that they are both "essential elements."²² Nextel further asserts that "the burden should be on supporters of a two

¹⁹ Comments of the American Petroleum Institute, WT Docket No. 02-55 at 5 (May 6, 2002) ("*API Comments*").

²⁰ *Association of Fire Chiefs Comments* at 4.

²¹ *Nextel Comments* at 23; Comments of the City of New York, WT Docket No. 02-55 at 7 (May 6, 2002) ("*NY City Comments*").

²² *Nextel Comments* at 25.

phased approach to demonstrate how the public interest is served by further delaying corrective measures.²³

What this statement fails to recognize is that the realignment plan suggested by Nextel *cannot be implemented immediately* and that technical solutions supported by market-based rules would not cause a "delay." Commenters suggest that it is highly unlikely that the massive relocation proposed by Nextel could be accomplished in 3 years as Nextel claims.²⁴ The Public Safety Improvement Coalition estimates at least 3 to 5 years to implement either the Nextel or the NAM plan.²⁵ Skitronics asserts that a better estimate is at least 4 to 5 years *after* suitable equipment in the relevant band is available.²⁶ TXU already completed a transition to 900 MHz that took 7 years.²⁷ In the interim, public safety entities would continue to be subject to harmful interference - unless additional market-based and technical measures are instituted. Further, it has not been definitively shown that realignment will even solve the current problems.

The most immediately available solution lies in the implementation of market-based mechanisms to spur negotiated and technical solutions. Moreover, given the time that commenters estimate it would take to implement a relocation, it is likely that a significant amount of spectrum in the 700 MHz band will be available for public safety in the event that relocation is necessary. That is, if relocation will take four to five years at a

²³ *Id.*

²⁴ *Id.* at 7.

²⁵ Comment of Public Safety Improvement Coalition, WT Docket No. 02-55 at 5-6 (May 6, 2002) ("*Public Safety Improvement Coalition Comments*").

²⁶ *Skitronics Comments* at 17.

²⁷ Comments of Carolina Power & Light Co. and TXU Business Services, WT Docket No. 02-55 at 16 (May 6, 2002) ("*Carolina Power/TXU Comments*").

minimum to implement, this puts relocation well past the 2007 mark for television broadcasters to vacate the 700 MHz band.

IV. COMMENTERS CONCUR THAT THE PLANS PRESENTED ARE FLAWED

Nearly every entity submitting comments found flaw with some portion of each of the plans submitted. Primarily, commenters objected to the lack of adequate funding mechanisms and the potential for widespread and unnecessary disruption of incumbents who have not contributed to the interference problem. These objections were voiced most strenuously with respect to the plan submitted by Nextel.

A. The Nextel Plan Should Be Rejected

A significant number of commenters find the Nextel plan to be practically unworkable and incapable of implementation, particularly during the transition that would need to occur.²⁸ Several governmental entities profess that the strain on personnel and critical operations would be unacceptable.²⁹ Moreover, restructuring "will disrupt many more systems than those that are currently impacted by interference."³⁰ Even retuning poses a virtually insurmountable hardship. Motorola notes, "[r]etuning public safety,

²⁸ See, e.g., *City of Baltimore Comments* at 1 (noting that to rebuild or retune its system on other frequencies "would be logistically extremely difficult" and "probably not feasible as a practical matter").

²⁹ See, Comments of the New York City Transit Authority, WT Docket No. 02-55 at 9 (May 6, 2002) ("*NY Transit Comments*"); Comments of the Commonwealth of Virginia, Department of Information Technology, WT Docket No. 02-55 at 4 § III (May 6, 2002) ("*Virginia Comments*").

³⁰ Comment of American Water Works Association, WT Docket No. 02-55 at 2 (May 23, 2002) ("*AWWA Comments*").

private wireless, and SMR is more involved than it may appear on the surface."³¹ It is not just a matter of "flash programming subscriber software and retuning base station radios."³²

1. Nextel's Cost Reimbursement Proposal Is Unworkable

It is clear even from Nextel's comments that the \$500 million it has offered will not even come close to covering the cost to relocate public safety, let alone the other incumbents who would be uprooted. Nextel proposes to require other CMRS providers to make up the shortfall in public safety funding and to require all other users to fund their own move. This plan is economically infeasible for both small and large companies holding licenses in the 800 MHz band.

In this regard, Entergy notes the significant volume of small SMRs submitting comments in this proceeding. It is a testament to the potentially devastating impact of the realignment proposals that so many felt compelled to make the FCC aware of the peril in which the possibility of an unfunded relocation places their business.³³ Estimates for small SMRs to implement retuning or relocation run from several hundred thousand³⁴ to several

³¹ *Motorola Comments* at 21.

³² *Id.* at 23.

³³ *See, e.g.*, Comments of Island SMR, Inc., WT Docket No. 02-55 at 2 (May 6, 2002) ("*Island SMR Comments*"); Comments of Business Autophones Inc., WT Docket No. 02-55 at 2 (May 6, 2002) ("*Autophones Comments*"); Comments of Supreme Radio Communications, Inc., WT Docket No. 02-55 at 16 (May 6, 2002) ("*Supreme Radio Comments*").

³⁴ *See, e.g.*, Comments of Cascade Two Way Radio, WT Docket No. 02-55 at 3 (May 3, 2002) ("*Cascade Comments*") (estimating \$74,300 to \$100,300 to relocate); Ex Parte Comments of Rees Communications, WT Docket No. 02-55 at 1 (March 26, 2002) ("*Rees Ex Parte Comments*") (estimating \$375,000 for backbone equipment and \$314,000 for new customer equipment); Ex Parte Comments Milbank Communications, WT Docket No., 02-55 at 1 (Jan. 8, 2002) ("*Milbank Ex Parte Comments*") (estimating a cost of \$450,000 to \$500,000).

million dollars for a given system,³⁵ figures that are often in excess of revenues. Many small SMRs anticipate that if the Nextel plan is adopted, it will force them into bankruptcy.³⁶

Larger companies would suffer correspondingly substantial relocation costs. The American Petroleum Institute suggests that it would cost "hundreds of millions of dollars" for members of the petroleum industry to relocate their expansive systems.³⁷ Duke Energy estimates that the Nextel plan would cost them between \$25 million and \$30 million,³⁸ while Pinnacle West estimates \$50 million to \$75 million to move its system.³⁹ While Southern LINC has not estimated its relocation costs, it notes that it has invested approximately \$330 million to build its system.⁴⁰ Motient estimates that its costs alone could run in excess of \$990 million for out-of-band relocation.⁴¹ Most B/ILT commenters assert that un-reimbursed wholesale relocation is simply not feasible.

On an industry wide basis, Motorola provides a sobering view of the impact that realignment could have. Motorola estimates that a proposal such as Nextel's, which couples out-of-band relocation for B/ILT and in-band shifting for public safety, would cost

³⁵ See, e.g. *Island SMR Comments* at 2 (estimating cost of over \$7 million); Ex Parte Comments of GilComm LLC, WT Docket No. 02-55 at 1 (Jan. 8, 2002) ("*GilComm Ex Parte Comments*") (estimating \$5-6 million in costs).

³⁶ See Comments of Bosshard Radio Service, WT Docket No. 02-55 at 3 (May 6, 2002) ("*Bosshard Comments*"); *Island SMR Comments* at 2; *Supreme Radio Comments* at 16.

³⁷ *API Comments* at 11.

³⁸ Comments of Duke Energy Corporation, WT Docket No. 02-55 at 4 (May 6, 2002) ("*Duke Comments*").

³⁹ Comments of Pinnacle West Capital Corporation, WT Docket No. 02-55 at 20 (May 7, 2002) ("*Pinnacle Comments*").

⁴⁰ Comments of Southern LINC, WT Docket No. 02-55 at 39 (May 6, 2002) ("*Southern LINC Comments*").

⁴¹ Comments of Motient Communications Inc., WT Docket No. 02-55 at 10 (May 6, 2002) ("*Motient Comments*").

between \$1.7 billion to \$2.4 billion for Business and I/LT users and between \$1.1 and \$1.5 billion for public safety users.⁴² Motorola further estimates that even in-band retuning, such as the NAM or FCC proposals contemplate, would cost Business and I/LT licensees between \$0.5 billion and \$0.7 billion and public safety between \$1.1 and \$1.5 billion.⁴³

Furthermore, Nextel makes it clear that its \$500 million "commitment" is conditioned upon the Commission's wholesale adoption of the Nextel realignment plan.⁴⁴ The partial funding offered, therefore, is completely contingent upon Nextel getting exactly what it wants: valuable, contiguous spectrum at 2GHz. Nextel loses nothing by making this offer, and the funding evaporates if Nextel is not awarded the spectrum it has requested.

Public safety doesn't even support Nextel on this point, despite the carrot offered of additional spectrum at 800 MHz. The reality is that public safety cannot move *unless* full funding is available, and neither the Nextel plan, nor any plan outlined in the NPRM for that matter, fully accounts for this issue. APCO rejects Nextel's funding proposal, stating that there should not be an arbitrary cap on the reimbursable expenses of public safety.⁴⁵ Moreover, an interfering party should not be permitted to limit its own liability, and, as discussed below, *any* incumbent forced to relocate to alleviate interference caused by another entity should be fully compensated, regardless of whether or not they are public safety licensees.

⁴² *Motorola Comments* at 25.

⁴³ *Id.*

⁴⁴ *Nextel Comments* at 6 ("Nextel would commit to fund up to \$500 million...*assuming the Commission adopts the White Paper proposal*") (emphasis added).

⁴⁵ Comments to Association of Public Safety Communications Officials International, Inc., National Association of Counties, National League of Cities, National Association of

2. Alternate Bands Are Not Comparable Or Available

Commenters generally share the concern that the alternative bands proposed for relocation of 800 MHz incumbents were neither comparable nor available for the immediate solution that Nextel seeks. Particularly, many noted that Nextel's current holdings at 700 and 900 MHz would not permit displaced parties to duplicate their geographic coverage. For example, the Southwest Louisiana Electric Membership Cooperative voices concerns "about whether there will be sufficient replacement spectrum on the other bands to accommodate all the displaced users, how that will be made available and when, and whether the spectrum and the equipment available for use in that band can support our current mission-critical applications and our future plans to expand/upgrade the system to support high-speed data transfers."⁴⁶ The District of Columbia points out the insufficiency of Nextel's holdings, stating that relocation of B/ILT to 700 MHz or 900 MHz "is not a viable solution" because Nextel does not hold nationwide licenses in either band in all of its markets.⁴⁷

Nextel attempts to counter these arguments by stating that, where its current holdings at 700 MHz or 900 MHz would be inadequate, it would be *Nextel's* responsibility to obtain additional spectrum.⁴⁸ This assertion is completely unsupported, as Nextel does not explain how it could acquire additional spectrum in these already crowded bands, or when it could logistically provide such spectrum. Given the lack of specifics and the

Telecommunications Officers and Advisers, WT Docket No. 02-55 at 22, 25 (May 6, 2002) ("*APCO Comments*").

⁴⁶ Comments of Southwest Louisiana Electric Membership Cooperative, WT Docket No. 02-55 at 7 (May 9, 2002) ("*SLEMCO Comments*").

⁴⁷ Comments of the Office of the Chief Technology Officer, Government of the District of Columbia, WT Docket No. 02-55 at 4 (May 6, 2002) ("*DC Comments*").

practical obstacles of which Nextel fails to take account, this bald assertion should not be afforded any consideration.

Furthermore, a number of commenters are concerned that, even if spectrum were available, functionality would be compromised. Exelon expresses this concern with respect to the 900 MHz band, which utilizes 12.5 kHz channels rather than the 25 kHz channels they currently employ in the 800 MHz band. Exelon explains that the reduction "would have a severe impact on [its utility subsidiary's] mobile data operations, which are used, *inter alia*, to dispatch gas emergency crews."⁴⁹ Data speed would be cut in half, which is unacceptable in emergency situations.⁵⁰ Harmer Communications expresses a similar objection regarding the 900 MHz band, and adds that the use of the 700 MHz band is questionable due to Nextel's status as a guard band manager.⁵¹

3. The "Ripple Effect" Would Be Problematic For Licensees Of Other Bands.

One of the most unnecessary aspects of the Nextel proposal is the fact that it would implicate multiple other bands and disrupt other allocations solely to facilitate its own agenda. The "ripple effect" of the Nextel plan would be felt across bands that have no relationship with the current operations at 800 MHz. Iridium Satellite, for example, chronicles the "potentially devastating impact" that Nextel's plan would have on MSS

⁴⁸ *Nextel Comments* at 46.

⁴⁹ Comments of Exelon Corporation, WT Docket No. 02-55 at 5 (May 6, 2002) ("*Exelon Comments*").

⁵⁰ *Id.*

⁵¹ Comments of Harmer Radio and Electronics, Inc., WT Docket No. 02-55 at 3 § 4 (May 3, 2002) ("*Harmer Comments*").

licensees.⁵² The Satellite Industry Association also notes the multiple ongoing proceedings that would be affected, and the continuing layers of complexity that the Nextel plan imposes.⁵³ Similarly, Boeing notes that "proposals currently being considered implicate the 700 MHz band, the 900 MHz band, the 1910-1930/2390-2400 MHz Unlicensed Personal Communications Services ("PCS") bands, and the 2 GHz MSS band."⁵⁴ The more bands and incumbents implicated by a plan, the more delay and regulatory uncertainty will ensue.⁵⁵ Given the far-reaching effects of the proposal, the Nextel proposal is "clearly the most disruptive approach, forcing the relocation of a majority of 800 MHz spectrum users and the reallocation of 2 GHz MSS spectrum."⁵⁶

4. Secondary Use Is Unacceptable For B/ILT, And Nextel's "Clarification" Does Nothing To Alleviate This

As Entergy did in its initial Comments, other Business and I/LT users universally rejected the idea of remaining in the 800 MHz band on a secondary basis. This "option" is unacceptable for many business and manufacturing concerns that rely on effective and reliable communications in their day to day operations, and particularly for critical infrastructure industries, which rely on their communications systems in mission critical and potentially life-threatening situations. Boeing, for example, opposes relegating business concerns to secondary status. Citing a statement by Commissioner Abernathy,

⁵² Comments of Iridium Satellite, LLC, WT Docket No. 02-55 at 3 (May 10, 2002) ("*Iridium Comments*").

⁵³ Comments of the Satellite Industry Association, WT Docket No. 02-55 at 4-5 (May 6, 2002) ("*Satellite Industry Ass'n Comments*").

⁵⁴ Comments of the Boeing Company, WT Docket No. 02-55 at 7 (May 6, 2002) ("*Boeing Comments*").

⁵⁵ *See, e.g., id.* at 7.

⁵⁶ *Satellite Industry Ass'n Comments* at 4.

Boeing asserts that "businesses require communications that are reliable and durable in order to perform their essential functions - including internal safety functions."⁵⁷ Further, "such critical internal business communications should not be jeopardized or compromised by the potential for harmful third party interference."⁵⁸

This rationale is even more pressing in the context of critical infrastructure communications. The Commission itself notes that "it would not appear advisable to require a station associated with the restoration of electrical power service to precipitously discontinue service."⁵⁹ The National Rural Electric Cooperative Association verifies the Commission's assessment, asserting that "because electric utilities work so closely with public safety in responding [to] emergencies, storms, and other natural disasters, they are very likely to have the greatest need of their 800 MHz band communications system at the same time."⁶⁰ Secondary status, therefore, would "likely not be acceptable to a responsible provider of critical infrastructure services" and would essentially constitute a *de facto* eviction from the band.⁶¹

Nextel attempts to "clarify" that incumbent B/ILT or analog, high-site SMR licensees could remain on their incumbent channels "temporarily" until the spectrum was needed by public safety.⁶² Nextel's "clarification" does nothing to alleviate the legitimate concerns described above. Moreover, Nextel's subtle "suggestion" that affected licensees

⁵⁷ *Boeing Comments* at 17.

⁵⁸ *Id.*

⁵⁹ *NPRM* at ¶34; *See also*, Comments of the Holy Cross Electric Association, Inc., WT Docket No. 02-55 at 4 (May 3, 2002) ("*Holy Cross Comments*").

⁶⁰ Comments of the National Rural Electric Cooperative Association, WT Docket No.02-55 at 5 (May 6, 2002) ("*National Rural Electric Coop. Comments*").

⁶¹ *Exelon Comments* at 5-6; *see also*, *National Rural Electric Coop. Comments* at 5.

⁶² *Nextel Comments* at 5, n. 11.

could "lease back" the spectrum during this time could create a situation in which a public safety licensee could essentially fund its relocation and upgrade its equipment through "lease payments" ransomed from incumbent B/ILT licensees, which are then summarily evicted. This outcome cannot be permitted.

5. The Nextel Proposal Fails to Account for Transitional and Implementation Logistics

As AEP points out, any transition plan would have to provide for full operational capabilities during that time period.⁶³ This would essentially require the construction and simultaneous operation of a parallel system for any relocating entity.⁶⁴ Any parallel system would be highly disruptive and perhaps infeasible, given that many base station sites are already at capacity and could not handle the collocation of additional facilities.⁶⁵ Nextel, however, completely fails to account for logistical issues that would arise during the massive transition it proposes.

6. Many Commenters Find That The Nextel Plan Is Legally Flawed And Unsupported By Precedent

Many commenters expressed the opinion that the Nextel plan is legally insupportable. As more fully discussed below, commenters vigorously assert that

⁶³ Comments of American Electric Power Company, Inc., WT Docket No. 02-55 at 3, 7 (May 6, 2002) ("*AEP Comments*").

⁶⁴ *Supreme Radio Comments* at 9 ("In all instances, the relocation would require the build-out of a fully functional parallel system to provide a seamless transition to the new system.").

⁶⁵ Comments of AVR., Inc, WT Docket No. 02-55 at 2 (May 6, 2002) ("*AVR Comments*"); *See also*, Comments of State of Maryland Department of Budget and Management Office of Information Technology, WT Docket No. 02-55 at 6, ¶ 3 (May 6, 2002) ("*Maryland Comments*").

Commission precedent supports the conclusion that it is the responsibility of the interfering party to remedy the interference it is causing. Particularly, commenters cite the Emerging Technologies Docket as standing for the proposition that parties benefiting from a spectrum reallocation (in this case, Nextel) should bear the cost. As such, Nextel is not being "targeted" because it has offered a realignment plan, but is responsible as a cause of public safety interference.

a. It Is The Interferor's Responsibility To Resolve The Interference It Causes

Commenters strenuously maintain that Commission precedent dictates that it is the interferor's responsibility to resolve the interference it causes. Particularly, this should be the case with respect to any costs that are incurred as a result of such resolution.

Carolina Power and Light and TXU Services outline in vivid detail the evolution of the interference created by Nextel and the willful steps taken by the company that have led to the current situation.⁶⁶ They note that the spectrum licensed by Nextel was never originally intended for the purpose to which it has been put, and that the "non-interfering nature" of Nextel's system architecture "appears to have been overstated" in its original transfer and waiver applications.⁶⁷ Moreover, Nextel itself concedes that its system design created the current public safety interference problem.⁶⁸ As such, it should be Nextel's responsibility to clean up the problem.

Many commenters agree with this assessment, asserting that if "the most substantial contributor to [public safety] interference is cellular-architecture SMR systems, and they

⁶⁶ *Carolina Power/TXU Comments* at 6-10.

⁶⁷ *Id.* at 10.

⁶⁸ *See id.* at 10, *citing* Nextel SEC Form 10-K at 16 (fiscal year ending Dec. 31, 2001).

are not able to address the interference caused on a case-by-case basis, then the burden of interference resolution, including the cost of relocating or retuning, should be borne by them."⁶⁹ They urge the Commission "to seek remedies that impose the burden on those causing interference" and argue that "the entities causing the interference should be held financially responsible for the solution."⁷⁰

The American Petroleum Institute further supports the principle that the interferor is responsible for funding the solution, asserting that "any necessary retunings or relocations should be paid for by the interfering licensee(s) and/or the Federal government."⁷¹ Put more bluntly, commercial interferors, who receive millions of dollars from consumers for their operations, are the "last ones in," and as such are responsible for "seek[ing] creative solutions, at their cost."⁷² Moreover, the Commission's precedent under *Midnight Sun* supports this rationale. This has "become a touchstone of Commission policy," and "clearly requires" the interfering party to remedy the interference.⁷³

- b. Nextel's Claim That They Should Not Be "Saddled" With The Disproportionate Share Of The Cost Of A Solution Because It Is Merely Stepping Forward To Offer A Solution Is Unsupportable

Nextel recites that there is no "precedent or rationale for saddling a relocation proponent with [the burden of funding relocation] merely for offering a solution in the

⁶⁹ *Kenwood Comments* at 9.

⁷⁰ Comments of Sid Richardson Energy Services Co., WT Docket No. 02-55 at 3 (May 6, 2002) ("*Sid Richardson Comments*").

⁷¹ *API Comments* at 4.

⁷² Comments of the County of Maui, WT Docket No. 02-55 at 10 (May 6, 2002) ("*Maui Comments*").

⁷³ Comments of Aeronautical Radio, Inc. et al, WT Docket No. 02-55 at 18 (May 6, 2002) ("*Tilles Joint Comments*"), citing *Midnight Sun Broadcasting Co. v. FCC*, 11 FCC 1119 (1947).

public interest."⁷⁴ This assertion is unsupported and contrary to fact. Rather, the vast majority of commenters attribute the bulk of interference in the 800 MHz band to Nextel's operations.⁷⁵ In this, Nextel is *not* merely a "relocation proponent." It is instead a primary interferor and would benefit considerably if it were relieved of its burden to eliminate the interference it is causing. Nextel's attempt to paint itself as an innocent bystander must be rejected.

c. Commenters Support The FCC's Policy In The Emerging Technologies Docket

Numerous commenters support Entergy's argument that the FCC's policy in the Emerging Technologies Docket would require any relocation in this instance to be fully funded.⁷⁶ That docket stands essentially for the proposition that an interfering or potentially interfering party must pay the cost of relocating the incumbent to comparable facilities in terms of throughput, reliability and cost of operation. The American Petroleum Institute concurs with Entergy, stating that, "such precedent stands for the general proposition that a licensee being forced out of its spectrum through no fault of its own...and that will not be receiving a commensurate benefit from the relocation should be fully compensated for its relocation costs."⁷⁷

⁷⁴ *Nextel Comments* at 42.

⁷⁵ *See, e.g., AWWA Comments* at 2; *Cingular Comments* at 2 ("the current evidence indicates that a significant majority of interference to public safety users is caused by Nextel's ESMR operations"); Comments of AT&T Wireless Services, Inc., WT Docket No. at 6 (May 6, 2002) ("*AT&T Wireless Comments*") (stating that Nextel's operations "constitute the primary cause of disruption to public safety licensees"); *Skitronics Comments* at 21 ("Southern LINC uses equipment substantially the same ... as that used by Nextel without causing the problems that Nextel creates").

⁷⁶ Comments of the United Telecom Council, WT Docket No. 02-55 at 16 (May 6, 2002) ("*UTC Comments*").

⁷⁷ *API Comments* at 13.

This approach was recently reaffirmed by the United States Court of Appeals for the District of Columbia Circuit in the 18 GHz proceeding. In that instance, the court approved of the FCC's requirement of compensation and adequate replacement facilities for licensees displaced by the FCC's decision to reallocate spectrum previously shared by satellite and traditional terrestrial spectrum users.⁷⁸ Taken in conjunction, these cases illustrate the reasonable Commission precedent that establishes the principle that licensees displaced through no fault of their own and for the benefit of another must be fully compensated and provided with comparable spectrum and facilities.

7. The Additional Spectrum for Public Safety Does Not Justify The Burdens That The Plan Entails

Several commenters agree with the position asserted in Entergy's comments that this proceeding should focus on the issue of interference and avoid other tangential issues. The Commission should "ignore the other agendas which some parties seek to inject into this proceeding," such as the politically appealing issue of additional spectrum for public safety use.⁷⁹ Commenters state that additional public safety spectrum should be "of secondary consideration" to the more pressing problem of interference,⁸⁰ and that "the Commission already has several venues open" to address public safety bandwidth and

⁷⁸ See *In re Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, RM-9005, RM-9118, *Report and Order*, FCC No. 00-212, 15 FCC Rcd 13430 (2000), *aff'd*, *Teledesic LLC v. FCC*, 275 F.3d 75 (D.C. Cir. 2001). See also, 47 C.F.R. §§ 101.75, 101.91 (providing that involuntarily relocated incumbents are entitled, *inter alia*, to guaranteed payment of relocation costs and a replacement system that is comparable in terms of throughput, reliability and operating costs).

⁷⁹ *Tilles Joint Comments* at 30.

⁸⁰ *AEP Comments* at 4.

interoperability.⁸¹ The FCC should "resolve the current Public Safety interference issues without imposing these other agendas on the proceeding."⁸²

Moreover, even if this were the appropriate proceeding within which to address the issue, the possibility of allocating additional spectrum to public safety does not outweigh the massive cost and disruption that such an allocation would entail under Nextel's proposal. While some benefit may inure to public safety, the detriment to the telecommunications industry's economic health would be profound. Furthermore, the public can ill-afford any disruption in service to critical infrastructure industries that rely on their communications systems to secure the nation's basic services such as energy and water.

Even assuming, *arguendo*, that additional public safety spectrum should be addressed here, the best way to achieve this goal is through the reallocation plan proposed by the Coalition for Constructive Public Safety Interference Solutions.⁸³ This plan has several advantages. First, public safety already has a substantial allocation in the 700 MHz band. Entergy notes that the Public Safety Wireless Network had previously identified the lower 700 MHz band as a promising location for future public safety allocations because the band "is located adjacent to recently allocated public safety bands" and because "the transition of broadcasters to digital frequencies will create a large spectrum reserve that could be used by public safety."⁸⁴ Second, this provides additional spectral separation

⁸¹ *Sid Richardson Comments* at 3.

⁸² *Id.*

⁸³ See Letter in Support of CTIA's request seeking Commission review of its request to delay the 700 MHz Auction, WT Docket No. 99-168; GN Docket No. 01-74 (filed April 26, 2002); *Cingular Comments* at Attachment B.

⁸⁴ Public Safety Wireless Network, *Public Safety Radio Frequency Spectrum: Highlighting Current and Future Needs* at 5-6 (Jan. 2000), available at www.pswn.gov.

from systems that may potentially cause interference. Moreover, it offers a *greater* net gain to public safety's spectrum tally than any of the other plans proposed.

8. The Nextel Allegation That B/ILT Licenses Are The Fewest In The Band And Therefore The Easiest To Move Is Incorrect

Nextel's estimates regarding relative presence of different categories of licensees is quantitatively suspect. Moreover, the conclusion it draws from its skewed statistics - that Business and I/LT would be the easiest to relocate - is qualitatively wrong.

Entergy notes that Nextel's "running averages" are based only on an analysis of the top 100 markets.⁸⁵ This average fails to account for the smaller, rural markets where Nextel may not hold spectrum, but where many utilities and other B/ILT licensees do. As such, its "running average" of 4 MHz of spectrum at 900 MHz obscures the fact that significant gaps are present in its holdings.

Even if B/ILT licensees account for less spectrum in the 800 MHz band than other categories of licensees, this does not lead to the conclusion that it would be "easier" to relocate them. As discussed above, Motorola's comments clearly illustrate that the financial implications of relocating Business and I/LT licensees out of the 800 MHz band would be tremendous.⁸⁶ The infrastructure for many utilities and other B/ILT systems is also usually located in much more remote areas, which would be more difficult to access to replace or retune. It is also likely that these licensees would bear a heavier burden due to the relative size of the staff that they employ to manage their networks when compared to large CMRS operators such as Nextel.

⁸⁵ *Nextel Comments* at 2 n.4, Appx. A.

⁸⁶ *Motorola Comments* at 25.

Moreover, the size and complexity of many utility communications networks militates against characterizing critical infrastructure industries as easily relocated. Due to the need for ubiquitous coverage and reliability, utilities and other critical infrastructure companies must use a large number of base stations, representing a substantial investment. Relocating such highly sophisticated networks while maintaining the necessary coverage and reliability would also be an extremely difficult and potentially dangerous task, regardless of the relative size of the spectrum held by these entities in comparison to commercial providers in the 800 MHz band.

B. The NAM and FCC Plans Should Be Rejected

Commenters consistently found both the NAM and FCC plans to be incomplete. The NAM plan, for example, was deemed "rather underdeveloped," which hampered the ability of licensees to assess adequately the impact that the proposal could have on operations.⁸⁷ This characterization is equally applicable to the brief suggestion put forth by the FCC.

Like the Nextel plan, these proposals also fail to account for the logistics of any transition. As Motient points out, system down time or failure can be catastrophic for safety of life communications.⁸⁸ NAM's proposal "does not provide for concurrent operation of existing public safety systems and testing of public safety facilities. Additionally, critical infrastructure industries such as electric, gas, power, and airline networks cannot tolerate system failures."⁸⁹

⁸⁷ *Skitronics Comments* at 17-18.

⁸⁸ *Motient Comments* at 16.

⁸⁹ *Id.*

As to the ability of either of these plans to remedy the interference problem adequately, they suffer from the same issues that plague the Nextel plan with respect to the fact that there is no data to support their efficacy. In addition, both the NAM and the FCC plans lack a mechanism for funding a potential relocation or retuning.⁹⁰ Motient notes, with respect to the NAM plan, that it "fails to define clearly the reimbursement rights of incumbents."⁹¹ As clearly outlined above, if full funding is not provided, any relocation would likely be infeasible for public safety or for any other incumbent.

Moreover, it should also be noted that even NAM itself backs away from its own proposal, conceding that the proposal to move public safety to the 700 MHz plan is a better option. NAM states that moving public safety to the 700 MHz band would be the best long-term solution as "it would achieve maximum separation from the 800 MHz systems with a cellular architecture."⁹²

C. Other In-Band Realignment Proposals Offered By Commenters Are Flawed

The additional in-band reshuffling proposals submitted suffer from the same infirmities as the NAM and FCC proposals. They do not account for transition logistics, and similarly do not provide any support for their effectiveness. Like the underdeveloped NAM and FCC plans outlined in the NPRM, the majority of the new proposals also fail to provide an adequate methodology for funding.

⁹⁰ *Cingular Comments* at 15-16.

⁹¹ *Motient Comments* at 11.

⁹² Comments of the National Association of Manufacturers, WT Docket No. 02-55 at 4 (May 3, 2002) ("*NAM Comments*").

Moreover, Entergy objects to those plans that would utilize B/ILT licensees as a buffer between public safety and cellularized CMRS. Using B/ILT as a "barrier against transmitter sideband noise and receiver overload" is not a solution to the problem of interference.⁹³ Such plans would likely only shift the brunt of the interference to B/ILT, which would be an unacceptable result, particularly for critical infrastructure industries.⁹⁴ The Commission should not create additional problems while trying to resolve the current public safety interference issues.

V. MARKET BASED AND TECHNICAL SOLUTIONS MUST BE IMPLEMENTED FIRST AND GIVEN AN OPPORTUNITY TO WORK

As Motorola comments, "[b]ecause the most effective actions are dependent on the specifics of each situation, there is no one set of solutions."⁹⁵ The "one size fits all"⁹⁶ mentality that has driven the realignment movement is inappropriate, and detrimental to developing an effective resolution plan. Commenters find that the proposals contained in the *NPRM*, and the Nextel formulation in particular, are "overly simplistic and do not take sufficient account of varying fact patterns and solutions."⁹⁷ Of the proposals proffered in the Comment round of this proceeding, only the market-based plans proposed by Entergy and others address this need for flexibility.

⁹³ Comments of TRW, Ohio Marc Program Office, WT Docket No. 02-55 at 6 (May 6, 2002) ("*TRW Comments*").

⁹⁴ *Pinnacle Comments* at 20.

⁹⁵ *Motorola Comments* at 3.

⁹⁶ *Id.* at 10; *City of Baltimore Comments* at 6.

⁹⁷ *City of Baltimore Comments* at 2.

A. Implementing Realignment Before Technical Solutions Would Be To "Put The Cart Before The Horse"

By focusing on realignment *before* technical solutions, the FCC is "putting the cart before the horse."⁹⁸ Even further, "the 'cart' is not likely to be a solution that will work."⁹⁹ Given that technical solutions have been successful and will be necessary *regardless* of whether or not the band is ultimately realigned, they should be implemented first and supported by the necessary modest rule changes suggested by the proponents of a market-based solution. Entergy also believes that the Commission should "pursue less radical, costly and disruptive measures for eliminating or mitigating interference before considering a wholesale realignment of the band."¹⁰⁰ Technical solutions supported by market-based rules fit the criteria.

B. Market Based And Technical Solutions Can Be Implemented Proactively, Not Just Reactively

Several commenters expressed concern that an approach such as the market-based plan, which utilizes technical solutions, would only deal with interference after the fact.¹⁰¹ This, however, need not be the case. By putting regulations in place that firmly establish which party is responsible for interference resolution, and by providing mechanisms to enforce those requirements, a market-based plan makes it in the financial interest of potential interferers to avoid interference before it occurs. This framework will

⁹⁸ Comments of Verizon Wireless, WT Docket No. 02-55 at 8 (May 6, 2002) ("*Verizon Wireless Comments*").

⁹⁹ *Verizon Wireless Comments* at 8.

¹⁰⁰ *Id.*

¹⁰¹ *See, e.g., APCO Comments* at 9-10; Comments of King County Information and Telecommunications Services Division, WT Docket No. 02-55 at 1 (May 6, 2002) ("*King County Comments*").

"encourage businesses to [develop] more efficient and effective solutions."¹⁰² Motorola notes that the *Best Practices Guide* and its associated technical appendix already "identifies and recommends numerous alternative measures that CMRS carriers and public safety, and B/ILT users can take to mitigate *existing* interference issues *and help to prevent such interference in new or future CMRS systems*."¹⁰³ As such, market-based implementation of technical solutions can prevent interference from occurring now and in the future and is not a strictly reactive measure, as some commenters worry.¹⁰⁴

C. FCC Regulation Must Be Enacted To Support And Promote Market-Based Resolution

Nextel asserts, and the *NPRM* echoes, that the interference resulting from Nextel's operations is occurring despite the fact that Nextel claims to be operating in compliance with the Commission's rules.¹⁰⁵ A number of parties, however, point to the Commission's existing rules, particularly section 90.173, as a prohibition upon the type of interference that Nextel appears to be creating.¹⁰⁶

To the extent that a loophole exists that does permit interference to occur despite technically complying with Commission rules, that loophole must be closed in order to

¹⁰² *Skitronics Comments* at 36.

¹⁰³ *Motorola Comments* at 11 (emphasis added).

¹⁰⁴ The Commission recent actions in the 700 MHz band reinforce this statement. In the Third Memorandum Opinion and Order on the matter, the FCC opted to establish coordination zones and technical remedies in the upper 700 MHz band which would "establish an anticipatory, rather than reactive, process for controlling interference..." See In re Petitions for Reconsideration of the Second Memorandum Opinion and Order, 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, *Third Memorandum Opinion and Order*, FCC 02-204, at 2 (rel. July 12, 2002).

¹⁰⁵ *NPRM* at ¶15; *Nextel Comments* at 11.

¹⁰⁶ See, e.g., *UTC Comments* at 7; See also, *Skitronics Comments* at 32-33.

encourage efficient behavior. As the National Rural Electric Cooperative advocates, "if one were interfering with another's use of spectrum, such interference should constitute noncompliance."¹⁰⁷

VI. RELOCATION SHOULD BE CONSIDERED IF, AND ONLY IF, MARKET-BASED AND TECHNICAL SOLUTIONS DO NOT RESOLVE THE PROBLEM

Echoing the sentiments of many of the licensees facing the possibility of forced migration, the State of Florida asserts that "any feasible option short of band restructuring would be highly attractive in view of the enormous burdens that restructuring would impose."¹⁰⁸ Entergy concurs.

Commenters from many different industry perspectives express support for a plan that uses market-based incentives to require technical solutions and to spur economically and spectrally efficient behavior. The American Petroleum Institute recommends rule amendments that would, *inter alia*, set forth a timetable for interference resolution and provide regulatory flexibility to permit targeted and individualized channel swaps where necessary for interference resolution.¹⁰⁹ Carolina Power and Light and TXU note that permitting such swaps would "mirror the Commission's television assignment swapping policies," as it would allow, but not mandate swaps to alleviate interference issues.¹¹⁰ The United Telecom Council recommends a detailed plan that would marry technical solutions and a regulatory framework that couples enhanced technical requirements with the flexibility to swap spectrum to alleviate interference, and numerous parties echo UTC's call

¹⁰⁷ *National Rural Electric Coop. Comments* at 11.

¹⁰⁸ *Florida Comments* at ¶ 30.

¹⁰⁹ *API Comments* at 7.

for a rational solution.¹¹¹ Access Spectrum suggests mediation as a tool to mitigate interference and recommends amended rules to facilitate consensus-based plans, even if they do not strictly conform to technical requirements.¹¹² In sum, market-based solutions have support and should be implemented first. Only if these more logical measures are demonstrably insufficient should relocation be considered.

In the event of any relocation, there are also essential considerations that must be taken into account. As Entergy stated in its Comments in this docket, it is imperative that any displaced licensee receive replacement spectrum on a one-to-one basis, taking into consideration all of the attributes of the spectrum being relinquished, including bandwidth, throughput and the like. In addition, any relocation framework must allow for a deliberate and predictable transition. Relocating licensees must have the sufficient time and resources provided to them to plan the entirety of their systems' relocation well in advance. This will require complete coordination of a licensee's system in the new band as a necessary precondition to its obligation to make the transition. A relocation plan would also have to preserve licensee flexibility to avoid limiting the ability of licensees to upgrade to newer technologies and increase their system capabilities. These goals must be met under any approach to the resolution of public safety interference. The best options to achieve this, as detailed below, are to proceed by: (1) utilizing market-based solutions; and (2) relocating public safety licensees to the 700 MHz band if necessary.

¹¹⁰ *Carolina Power/TXU Comments* at 18-19.

¹¹¹ *See UTC Comments* at 12-26; *See also, e.g.*, Comments of the Washington Electric Membership Corporation, WT Docket No. 02-55 at 5 (May 6, 2002) ("*Washington Electric Comments*"); Comments of Illinois Power Co., WT Docket No. 02-55 at 1 (May 6, 2002) ("*Illinois Power Comments*"); Comments of Questar Corporation, WT Docket No. 02-55 at 3 (May 6, 2002) ("*Questar Comments*"); *Pinnacle Comments* at 4; *Exelon Comments* at 1.

¹¹² Comments of Access Spectrum, LLC, WT Docket No. 02-55 at 7 (May 6, 2002) ("*Access Spectrum Comments*").

VII. OF THE MANY NEW PROPOSALS, MARKET-BASED SOLUTIONS AND PUBLIC SAFETY RELOCATION TO 700 MHZ OFFER THE BEST SOLUTION

Of the many new proposals offered in the first round of comments, only two appear to provide the relief required by the public safety community and to minimize disruption effectively to both public safety and the other 800 MHz incumbents. The market-based solution recommended by Entergy and several others will provide the framework needed to implement technical solutions, which have a proven history of interference resolution, in a proactive manner by clearly outlining the responsibilities of all parties involved. If, after technical solutions have been implemented and given an opportunity to work, realignment is ultimately necessary, the best option is the plan to relocate public safety to 700 MHz.

A. Market-Based Resolution Of Interference

A market based solution permits licensees to make effective, economic decisions. It also offers the potential for the least amount of disruption to incumbent licensees, as no party would be required to move involuntarily or without funding. This aspect of the approach would appeal to the numerous commenters expressing the opinion that any plan adopted should minimize disruption to existing licensees.¹¹³ This also conforms with the FCC's goal, as stated in the *NPRM*, of minimizing disruption.

Moreover, a market-based solution allocates the responsibility for costs to the cost-causer - an aspect of any relocation that the majority of commenters support. As discussed *supra*, commenters support the notion that the party causing the interference should be the one responsible for finding a solution and paying for it, including making any incumbent

¹¹³ See, e.g., *UTC Comments* at 11.

required to relocate "whole."¹¹⁴ Interferors, they state, "should shoulder the burden of that cost."¹¹⁵ A market-based regulatory environment would require the interfering party to fund a solution, and would also provide the benefit of affirmative recourse for licensees experiencing interference and a viable enforcement mechanism. The framework established under this approach will also spur proactive interference avoidance by potential interferors. By clarifying responsibilities, and by providing the regulatory flexibility to address interference and by establishing firm enforcement policies, the FCC will ensure that it is in the financial interest of the potential interferor to avoid the issue in the first instance. Moreover, non-interfering parties would not have to relocate or bear the costs of others causing interference.

Furthermore, if, as Nextel asserts, realignment is ultimately necessary, a market-based plan provides the opportunity to do so. That is, if its asserted spectrum holdings are correct, Nextel has the resources to implement rebanding on a targeted scale by utilizing the interference resolution mechanisms proposed by Entergy, including spectrum swaps and eligibility waivers. These methods may be used to achieve a limited realignment, which would be proportionate and focused on specific, identified problems or potential problems without unnecessarily disrupting uninvolved licensees.

B. If Realignment Is Necessary, The Best Realignment Plan Relocates Public Safety To The 700 MHz Band

After the implementation of market-based measures, if the Commission ultimately determines that realignment is necessary, Entergy supports the plan proposed by the

¹¹⁴ See *id.* at 16; Comments of Omaha Public Power District and Metropolitan Utilities District, WT Docket No. 02-55 at 3 (May 2, 2002) ("*Omaha Power Comments*").

Coalition for Constructive Public Safety, which would relocate public safety entities to the 700 MHz band.¹¹⁶ This plan has several advantages over the other plans proposed, not the least of which are the minimization of disruption to incumbent licensees and an equitable funding mechanism. Numerous commenters concur that this plan would "be the least detrimental to incumbent 800 MHz operators, while providing the greatest long-term benefits for all."¹¹⁷ Coupled with technical solutions, this plan would be "wholly justified and workable."¹¹⁸ The CTIA cites this plan as the "optimal solution,"¹¹⁹ and even NAM, as discussed above, agrees with this assessment.¹²⁰ Moreover, the recent Auction Reform Act of 2002, which delayed the scheduled auction in the 700 MHz band, specifically cites the possibility of using this band to resolve the current 800 MHz interference issues.¹²¹

Given the spectral separation that would result,¹²² it would be less likely that the current problems would be duplicated in the future, thus minimizing the likelihood of another band reallocation. In addition, as AT&T notes, allocating spectrum to public

¹¹⁵ Comments of Michigan State Police, Communications Division, WT Docket No. 02-55 at 2 (May 6, 2002) ("*Michigan Police Comments*"); *Florida Comments* at ¶ 20.

¹¹⁶ See Letter in Support of CITA's request seeking Commission review of its request to delay the 700 MHz Auction, WT Docket No. 99-168; GN Docket No. 01-74 (filed April 26, 2002); *Cingular Comments* at Attachment B.

¹¹⁷ Comments of Jamestown Communications Inc., WT Docket No 02-55 at 5 (May 6, 2002) ("*Jamestown Communications Comments*"); See also, *Cingular Comments* at 19; Comments of Madison County East Transit District, WT Docket No. 02-55 at 9 (May 3, 2002) ("*Madison County Transit Comments*"); Comments of the Cellular Telecommunications and Internet Association, WT Docket No. 02-55 at 9 (May 6, 2002) ("*CTIA Comments*").

¹¹⁸ *Jamestown Communications Comments* at 5.

¹¹⁹ *CTIA Comments* at 9.

¹²⁰ *NAM Comments* at 4.

¹²¹ Auction Reform Act of 2002, Pub. L. No. 107-195 at § 2(4).

¹²² *Motient Comments* at 17 ("Relocation of public safety operations to the 700 MHz band would create sufficient spectral separation from the offending CMRS licensees in the 800 MHz band.").

safety entirely within the 700 MHz band will permit the employment of effective passband filters and other handset improvements, which would minimize the likelihood of interference from broadcasters.¹²³ Further, the fact that broadcast will be required to vacate this band provides additional flexibility for public safety operations that would not be present in other congested bands. Entergy also believes that this is the only plan that offers a viable and equitable funding mechanism.

As discussed above, Entergy does not believe that the desire to allocate additional spectrum to public safety should drive this proceeding. The primary focus should be on the resolution of the public safety interference problem. Nonetheless, it bears note that this plan offers the added benefit of providing an additional public safety allocation in a band that is already so dedicated.¹²⁴

VIII. THE FCC SHOULD ISSUE A FURTHER NOTICE OF PROPOSED RULEMAKING TO ADDRESS ANY NEW PLANS PROPOSED LATE IN THE PROCEEDING

A number of parties requested that the Commission extend time for the filing of reply comments in this proceeding, including a group consisting of APCo, NAM, Nextel and several others.¹²⁵ The request specifically indicated that the group of petitioners intended to submit an additional proposal to the Commission in its reply comments.¹²⁶ In addition, Entergy believes that there may be other rebanding plans that are in various

¹²³ *AT&T Wireless Comments* at 10-11.

¹²⁴ *See id.* at 10.

¹²⁵ *See Request for Extension of Time, WT Docket No. 02-55 (filed June 25, 2002) (filed by APCo et al.)*

¹²⁶ *Id.* at 2.

stages of development and which may be submitted in the reply comment round of this proceeding.

To the extent that the FCC considers a plan submitted at this late stage that has not previously been made a part of the record to date, the FCC should initiate a Further Notice of Proposed Rule Making in order to ensure that the public may fully participate in the consideration of such a plan. In the past, the FCC has found a Further Notice of Proposed Rule Making to be appropriate in order to refresh the record,¹²⁷ to obtain additional data,¹²⁸ or to obtain additional comment on specific technical aspects of a previous proposal.¹²⁹ The issues in this proceeding are too important to resolve without the full participation of all parties and the public.

IX. CONCLUSION

The record clearly indicates that additional, independent evaluation is necessary to determine more precisely both the causes of public safety interference and the likelihood that the remedy selected will alleviate the interference that is found to be present. The proposals put forth in the *NPRM* are vague and overly burdensome, and cannot even guarantee an adequate resolution to public safety interference. Moreover, even if

¹²⁷ See, e.g., In re Implementation of the Telecommunications Act of 1996, Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, WT Docket Nos. 96-115, 96-149, 00-257, *Third Report and Order and Third Notice of Proposed Rule Making*, at ¶ 4 (rel. July 25, 2002).

¹²⁸ See, e.g., Statement of Commissioner Kevin Martin, Approving in Part and Concurring in Part, In re Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Recommended Decision* (rel. July 10, 2002).

¹²⁹ See, e.g., In re Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FCC Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range, ET Docket N. 98-206, RM-9147, RM-9245, *Memorandum Opinion and Order and Second Report and Order*, at ¶ 16 (rel. May 23, 2002).

realignment were implemented, additional measures would be necessary. Logic dictates that technical measures, implemented and supported by market-based rules and incentives, be instituted *first* and given an opportunity to work before the FCC even considers a massive spectrum reallocation. If, however, it is ultimately determined that realignment is necessary in addition to market-based and technical solutions, displaced incumbents must be fully compensated and given comparable replacement facilities and comparable spectrum. In this respect, it is far more practical and preferable, should relocation be required, to reallocate the upper 700 MHz band to public safety as suggested by the Coalition for Constructive Public Safety Interference Solutions and others.

WHEREFORE, THE PREMISES CONSIDERED, Entergy respectfully requests that the Commission consider these Reply Comments and proceed in a manner consistent with the views expressed herein.

Respectfully submitted,

ENTERGY CORPORATION AND
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CERTIFICATE OF SERVICE

I, Christine S. Bisio, do hereby certify that on this 7th day of August, 2002, I caused a copy of the foregoing "Reply Comments of Entergy Corporation and Entergy Services, Inc." to be hand-delivered to each of the following:

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