

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

In the Matter of)
)
Improving Public Safety)
Communications in the)
800 MHz Band)
)
Consolidating the 900 MHz)
Industrial/Land Transportation)
and Business Pool Channels)

WT Docket No. 02-55

TO: The Commission

REPLY COMMENTS OF CONSUMERS ENERGY COMPANY

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EXECUTIVE SUMMARY

The comments submitted in this proceeding do not justify implementing broad-based measures that would affect all licensees in the 800 MHz band. Numerous commentors, including Public Safety licensees, concur with Consumers's view that the scope and cause of the interference to Public Safety licensees should be investigated further as this will give the Commission the tools to adopt an efficient and effective solution to the problem. Commentors are properly concerned that, if the Commission acts before acquiring a clear understanding of the reasons for the interference, a solution may be adopted that causes more problems than its solves.

As part of its investigation, the Commission should focus on the party that is causing the interference. Placing the onus of rectifying the interference problem on the interferor is the fair and appropriate course of action. It is inequitable to require licensees that are not causing interference to remedy the problem. In particular, the Commission should look closely at Nextel because there is overwhelming agreement that Nextel's operations are the primary cause of Public Safety interference.

Numerous commentors join Consumers in urging the Commission to facilitate a market-based approach to resolve the interference problems while investigating the underlying causes of the interference. Commentors support this solution because it is an efficient approach that gives the parties involved flexibility in reaching a resolution so that the most appropriate measure can be utilized in each case. For example, different technical measures can be employed under this approach depending on the cause of the interference.

In contrast, the proposals to realign the 800 MHz would implement sweeping changes that would affect virtually every licensee in the 800 MHz band. Commentors express concern that realigning the 800 MHz band could impose tremendous costs and burdens without even making a substantial dent in the interference problem. The comments demonstrate that it will take a minimum of five years to implement any realignment plan and could cost over \$5 billion dollars.

The realignment proposals would be particularly devastating for licensees in the Canadian border region. As many commentors note, there has been little or no thought given to the Canadian border issues. Commentors consistently agree that if the Commission implements any of the realignment plans, a sufficient amount of spectrum must be allocated for all licensees in the border regions. None the proposals accomplish this goal.

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TO: The Commission

REPLY COMMENTS OF CONSUMERS ENERGY COMPANY

Consumers Energy Company (“Consumers”), by and through counsel, hereby submits these reply comments in the above-captioned proceeding.¹ The comments submitted in this proceeding overwhelmingly support a measured approach to the problem of interference to Public Safety operations at 800 MHz, one that places the cost of correcting the problem where it belongs: with the cost-causer. Consumers submits that this broad consensus results from the fact that the more radical proposals for remedying the problem are simply unreasonable. Consumers believes that the comments have provided the Federal Communications Commission

¹ *In the Matter of Improving Public Safety Communications in the 800 MHz Band; Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, WT Docket No. 02-55, Notice of Proposed Rulemaking (March 15, 2002) (“NPRM”). The NPRM was published in the Federal Register on April 5, 2002, 67 Fed. Reg. 16351.

(“Commission” or “FCC”) with an ample basis upon which to adopt a market-based approach that focuses on the implementation of technical measures to address instances of interference. As set forth more fully herein, Consumers urges the Commission to choose this course.

I. INTRODUCTION

Consumers reiterates its support for addressing interference that the Public Safety community is experiencing because Public Safety entities must have access to reliable land mobile communications. In addressing this problem, however, the Commission must adopt an approach that will be effective and proportionate to the problem and that avoids unnecessary harm to other critical interests, such as utility operations. Consumers submits that Nextel’s plan and the others put forth in this proceeding will not achieve this. As the commentors largely recognize, there are effective methods of resolving interference available now and there is little indication that the other proposals set forth will be effective, efficient or feasible in the near or long term.

II. THE RECORD IS NOT SUFFICIENT TO SUPPORT SWEEPING CHANGES THAT WOULD AFFECT ALL USERS OF THE 800 MHZ BAND

In its comments, Consumers stated that there is insufficient information on the interference problem to justify the sweeping changes that the Commission has proposed in the *NPRM*.² Consumers believes that the comments support the effectiveness of technical measures, but that there is still not enough information to support the adoption of radical changes to the

² Comments of Consumers Energy Company, WT Docket No. 02-55 at 5-6 (May 6, 2002) (“*Consumers Comments*”).

existing regulatory framework. Numerous commentors concur with Consumers's view that the scope and cause of the interference should be investigated further as this will give the Commission the tools to adopt an efficient and effective solution to the problem. The American Petroleum Institute, for example, recommends that the Commission "develop and analyze adequate technical information before embarking on a path towards band reconfiguration."³ The American Mobile Telecommunications Association tried to investigate the causes of the interference but instead found "significant differences of opinion on this subject among respected engineering sources."⁴ Even the National Association of Manufacturers, which proposed its own realignment plan, recognizes that "more data on the interference mechanisms and possible solutions [is needed] before any final plan for resolving 800 MHz interference" can be intelligently adopted.⁵

Significantly, a number of Public Safety licensees also advocate more investigation to develop a clearer record. The State of Florida believes that the Commission should "thoroughly investigate" the interference issues, and the City of Baltimore states that there is a need to "develop a clearer record" before acting.⁶ Also, the International Association of Fire Chiefs, Inc. and International Municipal Signal Association believe that the Commission should "conduct

³ Comments of American Petroleum Institute, WT Docket No. 02-55 at 3 (May 6, 2002) ("*API Comments*").

⁴ Comments of American Mobile Telecommunications Association, Inc., WT Docket No. 02-55 at 7 (May 6, 2002).

⁵ Comments of National Association of Manufacturers and MRFAC, Inc., WT Docket No. 02-55 at 5 (May 6, 2002) ("*NAM Comments*").

⁶ Comments of State of Florida, WT Docket No. 02-55 at 1 (May 6, 2002) ("*Florida Comments*"); Comments of City of Baltimore, Maryland, WT Docket No. 02-55 at 6 (May 6, 2002) ("*City of Baltimore Comments*").

empirical research to determine the relative effectiveness of the solutions proposed, and to recommend the adoption of a plan which will meet the objectives set by the Commission.”⁷ As the comments clearly demonstrate, more information must be obtained regarding how, why, and to what extent, Public Safety licenses are suffering from interference.

As a part of the process, the Commission should confirm that licensees causing interference are actually complying with existing technical rules to ensure that the interference problems are not caused by non-compliant systems. Although Nextel claims that it is following all the regulations, Consumers believes that, as part of developing additional information on the problem, the Commission should focus on why Nextel’s operations are far more likely to cause Public Safety interference than those of other users. This is particularly important in light of comments indicating that “many technical shortcuts were taken” when Nextel constructed its facilities.⁸ Furthermore, a number of commentors have indicated that Nextel has not always cooperated promptly to resolve interference.⁹ Ensuring consistent compliance with technical requirements is a logical first step to resolve the interference. In this regard, Consumers agrees with the National Rural Electric Cooperative that stronger enforcement of existing rules may help to reduce interference.¹⁰

⁷ Comments of International Association of Fire Chiefs, Inc. and International Municipal Signal Association, WT Docket No. 02-55 at 4 (May 6, 2002).

⁸ Comments of Danny Hampton, WT Docket No. 02-55 at 1 (May 6, 2002).

⁹ See e.g. Comments of City of Portland, Oregon, WT Docket No. 02-55 at 3 (May 6, 2002) (“*Portland Comments*”).

¹⁰ Comments of National Rural Electric Cooperative Association, WT Docket No. 02-55 at 11 (May 6, 2002).

Commentors express concern that, if the Commission acts before acquiring a clear understanding of the reasons for the interference, a solution may be adopted that causes more problems than it solves. Consumers agrees with the American Public Transportation Association that one important reason that further investigation is necessary is to allow for a “cost-benefit analysis [to] be undertaken so that the true cost impact of any relocation . . . is available to decision makers.”¹¹ It is important that the Commission “consider all costs involved” when making its decision.¹²

Eliminating the interference suffered by Public Safety licensees is critical. It is equally important, however, that the Commission ensure that any solution it adopts does not impose burdens that are not necessary to resolve the problem. For example, a solution that compromises the communications systems of utilities and other critical infrastructure industries will impose an enormous cost on society. Consumers does not believe that any solution that puts the communications needs of critical infrastructure licensees at risk should be adopted because the benefits will not outweigh the costs. This is particularly true because there are solutions available now, such as the market-based approach, that will not impose these high costs. Consumers submits that a more thorough investigation by the Commission is a necessary precondition to the implementation of significant changes to the existing structure of the 800 MHz band.

¹¹ Comments of American Public Transportation Association, WT Docket No. 02-55 at 2 (May 6, 2002).

¹² Comments of National Ready Mixed Concrete Association, WT Docket No. 02-55 at 2 (May 6, 2002).

The appropriate vehicle to conduct such an investigation already exists. The Commission recently created the Spectrum Policy Task Force to evaluate the Commission's spectrum policies and recommend possible improvements.¹³ A number of issues that the Task Force is investigating, such as what constitutes acceptable interference, are relevant to this proceeding. The Task Force's investigation should be expanded to include the reasons that Public Safety licensees are subject to harmful interference in the 800 MHz band. This will allow the Commission to resolve the interference problems in the most efficient manner.

III. THE COMMISSION'S APPROACH SHOULD FOCUS ON THE COST-CAUSER

Many of the comments were in agreement with Consumers's view that the Commission should focus on the party that is causing the interference in adopting an approach to resolve the interference problems.¹⁴

A. There Is Overwhelming Agreement That Nextel's Operations Are The Primary Cause Of Public Safety Interference

Although there are numerous CMRS licensees operating in the 800 MHz band, the commentors consistently indicate that Nextel's operations are far more likely to cause harmful interference than any other licensee's operations. The American Water Works Association expresses concern "that the NPRM and the policy discussion around it has failed to address the central issue identified both by the FCC and the Nextel White Paper, the fact that Nextel is

¹³ *Spectrum Policy Task Force Seeks Public Comment On Issues Related To Commission's Spectrum Policies*, DA 02-1311, ET Docket No. 02-135 (released June 6, 2002).

¹⁴ See, e.g., *City of Baltimore Comments* at 5.

causing the interference.”¹⁵ Cingular and Alltel agree that Nextel is the principle cause of the interference, and state that “the current evidence indicates that a significant majority of interference to public safety users is caused by Nextel’s ESMR operations.”¹⁶ AT&T Wireless also finds that Nextel’s communications are “far more disruptive to public safety operations than are cellular operations and, indeed, constitute the primary cause of disruption to public safety services.”¹⁷ It appears that Nextel is causing most of the interference even though “Southern Linc uses equipment substantially the same . . . as that used by Nextel without creating the problems that Nextel creates.”¹⁸

B. It Is Inequitable To Require Licensees That Are Not Causing Interference To Remedy The Problem

There is significant agreement in the comments that the party causing the interference should be required to pay the costs associated with resolving it. The United Telecom Council, for example, firmly believes that the cost of resolving interference should borne by “the party causing it.”¹⁹ Omaha Public Power District, the Metropolitan Utilities District, the National

¹⁵ Comments of American Water Works Association, WT Docket No. 02-55 at 2 (May 6, 2002) (“*AWWA Comments*”).

¹⁶ Comments of Cingular Wireless LLC and Alltel Communications, Inc., WT Docket No. 02-55 at 2 (May 6, 2002).

¹⁷ Comments of AT&T Wireless Services, Inc., WT Docket No. 02-55 at 6 (May 6, 2002).

¹⁸ Comments of Skitronics, LLC, WT Docket No. 02-55 at 21 (May 6, 2002) (“*Skitronics Comments*”).

¹⁹ Comments of United Telecom Council, WT Docket No. 02-55 at i (May 6, 2002) (“*UTC Comments*”).

Rural Electric Telecommunications Cooperative and the American Water Works Association share this view as well.²⁰

Public Safety licensees also support this solution. The State of Florida recommends that the “parties contributing to public safety interference should share in the financial obligation to remove the interference.”²¹ The Michigan State Police concur and urge that “those responsible for the interference should shoulder the burden of that cost.”²²

Placing the onus of rectifying this interference problem on the interferor is the fair and appropriate course of action. Nextel makes much of its claim that it is causing interference even though it is operating within existing technical rules. In doing so, Nextel seems to be suggesting that no one is at fault and therefore the costs should be borne by all parties. Consumers submits that such a position is preposterous. Nextel alone benefits from its unusual system architecture and distributing the costs of rectifying the shortcomings of that architecture generally across all users is unacceptable.

If the interfering party cannot, or refuses to, pay to resolve the problems, the interfering party should be required to discontinue the interfering operations, which could include relocation of the interfering operations from the 800 MHz band. The American Petroleum Institute believes that “the optimal solution may be to remove the interfering commercial systems from the 800 MHz band.”²³ The National Rural Telecommunications Cooperative concurs that if a

²⁰ Comments of Omaha Public Power District and Metropolitan Utilities District, WT Docket No. 02-55 at 3 (May 6, 2002). Comments of National Rural Telecommunications Cooperative, WT Docket No. 02-55 at 4 (May 6, 2002) (“*NRTC Comments*”). *AWWA Comments* at 2.

²¹ *Florida Comments* at 6 ¶ 20.

²² Comments of Michigan State Police, WT Docket No. 02-55 at 2 (May 6, 2002).

²³ *API Comments* at 5.

realignment plan is necessary, “the optimal approach . . . would be to identify alternative spectrum (outside of the 800 MHz band) for the party or parties that are causing interference.”²⁴

IV. THE COMMENTS CONFIRM THAT TECHNICAL MEASURES CAN BE EFFECTIVELY EMPLOYED IN A MARKET-BASED APPROACH TO RESOLVE THE PUBLIC SAFETY INTERFERENCE PROBLEM

In its comments, Consumers recommended that the Commission foster the use of technical measures because they are an effective way to resolve the interference problems.²⁵ The comments clearly support Consumers’s position and demonstrate that the Commission should adopt an approach that focuses on technical measures instead of taking more drastic steps. American Electric Power’s comments are consistent with Consumers’s recommendation in stating that “technical approaches to the [interference] problem could be more effective without the disruption to all incumbents of the 800 MHz band.”²⁶ Exelon expresses its concern that, even if the Commission realigned the 800 MHz band, it would provide no guarantee of resolving the interference problems.²⁷ Motorola, a leading manufacturer of Public Safety communications equipment, indicates that technical solutions should be utilized “because the most effective

²⁴ *NRTC Comments* at 6.

²⁵ *Consumers Comments* at 6. Although further investigation is needed, Consumers believes that in the interim the Commission should implement a market-based approach to address the interference problems of Public Safety licensees.

²⁶ Comments of American Electric Power Company, WT Docket No. 02-55 at 13 (May 6, 2002).

²⁷ Comments of Exelon Corporation, WT Docket No. 02-55 at 3-4 (May 6, 2002) (“*Exelon Comments*”).

actions are dependent on the specifics of each situation . . . [because] there is no one set of solutions” that can resolve the interference problems.²⁸

Public Safety entities, such as the State of Florida, also recognize that technical solutions provide the best opportunity to resolve the interference problems “in view of the enormous burdens that restructuring would impose.”²⁹

A. In Contrast To Other Proposals, Technical Approaches Are Effective, Already In Use And Available Well In Advance Of Realignment

The comments show that technical approaches are currently being implemented to resolve interference problems effectively. Accordingly, the Commission should endorse and further facilitate the existing use of technical solutions rather than waiting years for the impact of realigning the 800 MHz band to become clear. Many commentors discuss interference problems and explain how they have been resolved using technical solutions. For example, the City of Portland modified its receiver to improve performance³⁰ and Nextel used a different type of combiner to alleviate interference to Frontier Radio.³¹ Motorola suggests that Nextel should use “auto-tune cavity filters when necessary.”³²

The comments show that, even in a crowded spectrum environment, technical solutions can resolve problems. Motorola recounts that, during the Winter Olympics in Salt Lake City,

²⁸ Comments of Motorola Inc., WT Docket No. 02-55 at 11 (May 6, 2002) (“*Motorola Comments*”).

²⁹ *Florida Comments* at 8 ¶ 30.

³⁰ *Portland Comments* at 5.

³¹ Comments of Delmarva Power & Light Company and Atlantic City Electric Company, WT Docket No. 02-55 at 14 (May 6, 2002).

³² Ex Parte Comments of Motorola Inc., WT Docket No. 02-55 (May 21, 2002).

“the *Best Practices Guide* recommendations were utilized . . . and greatly minimized the instances of interference among the numerous public safety, commercial and private wireless operations needed to support that event.”³³ The record clearly reflects that implementing technical solutions will resolve interference problems in the most expeditious fashion.³⁴

B. The Commission Should Create A Clear Framework For A Market-Based Approach

In its comments, Consumers expressed its support for a market based approach that will: (1) protect Public Safety licensees from harmful interference; (2) permit flexibility to accommodate disparate radio systems in the 800 MHz band; and (3) minimize, if not eliminate, the cost to those 800 MHz licensees that are not interfering with Public Safety licensees.³⁵

A number of commentors endorse the view that a market-based approach should be adopted because an “incident-specific approach better serves the public interest than would a broad-scale rebanding approach.”³⁶ UTC advocates adopting a market-based approach, because it will “eliminate interference at a lower cost than mandatory rebanding, while fostering upgraded technology that will improve the utility of the [800 MHz] band to its users in years to come.”³⁷ In addition, a number of electric cooperatives support a market-based alternative because it is a targeted approach that could “alleviate the interference in those areas of the

³³ *Motorola Comments* at 11.

³⁴ *See e.g. AWWA Comments* at 2-3.

³⁵ *Consumers Comments* at 7.

³⁶ *Exelon Comments* at 8.

³⁷ *UTC Comments* at 14 (May 6, 2002).

country where it exists,” while not requiring expenditures in areas where it does not.³⁸

Consumers agrees with these commentors and notes that the Commission has previously approved a case-by-case approach to protect Public Safety licensees against interference from CMRS licensees.³⁹ This approach is preferable to an across-the-board solution because it is “more focused on the circumstances likely to occasion interference.”⁴⁰

UTC also advocates adopting a market-based approach, because it will “eliminate interference at a lower cost than mandatory rebanding, while fostering upgraded technology that will improve the utility of the [800 MHz] band to its users in years to come.”⁴¹ This approach is the most efficient solution proposed because as Skitronics points out, a market-based approach “would encourage businesses to . . . [develop] the most efficient and effective solutions.”⁴²

Imposing the costs on the party causing the interference creates incentives for licensees to refrain from causing interference. Furthermore, the involved parties will seek out the most efficient solution to each instance of interference. This contrasts markedly with Nextel’s and other realignment plans, which do not have any type of structural efficiencies.

³⁸ See e.g. Comments of Jones Onslow Electric Membership Corporation, WT Docket No. 02-55 at 6 (May 6, 2002); Comments of Kankahee Valley Rural Electric Membership Corporation, WT Docket No. 02-55 at 4 (May 6, 2002); Comments of White County Rural Electric Membership Corporation, WT Docket No. 02-55 at 4 (May 6, 2002) (“*White County Comments*”); Comments of Washington Electric Membership Corporation, WT Docket No. 02-55 at 5 (May 6, 2002).

³⁹ *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 ¶ 16 (July 12, 2002).

⁴⁰ *Id.*

⁴¹ *UTC Comments* at 14 (May 6, 2002).

⁴² *Skitronics Comments* at 36.

C. While The Commission Should Give Parties Involved Flexibility In The Manner In Which They Resolve Interference, The Commission Should Implement Rule Changes To Facilitate Resolution

Consumers continues to believe that providing flexibility to parties will promote efficient resolution of interference problems. The comments support the proposition that incidents of interference are caused and affected by a variety of factors and that efforts to remedy them with general requirements are likely to be wasteful and ineffective. The Commission should, however, establish generally applicable measures to ensure that the process of resolving interference is carried out expeditiously. Two of the common complaints directed against interfering parties are delay in responding to complaints of interference and failure to maintain measures once a method of resolution has been worked out.⁴³ As set out in its comments, Consumers supports the adoption of limited timeframes for response once a Public Safety entity provides notice of an interference problem.⁴⁴ Consumers urges the Commission to establish economic consequences for failing to abide by these limited timeframes once they are in place. Additionally, Consumers believes that the Commission should make clear that it will not accept temporary, stop-gap measures but, instead, will take decisive enforcement action unless remedial measures are maintained once they are in place.

⁴³ See e.g. Comments of King County, WT Docket No. 02-55 at 1 (May 6, 2002); *Portland Comments* at 3.

⁴⁴ *Consumers Comments* at 15.

V. THE COMMENTS CONFIRM THE NEED TO PROVIDE FOR BORDER REGION USERS

Consumers is concerned that none of the proposed realignment plans adequately address any of the issues related to spectrum use in the border regions even after the Commission requested comments on this issue in the *NPRM*.⁴⁵ Consumers strongly agrees with Kenwood Communications that “there has been little or no thought given to the Canadian and Mexican border issues, and international agreements, which may preclude or at least substantially delay implementation of any 800 MHz restructuring proposal.” As the City of San Diego notes, the “border areas represent the greatest challenge to the changes being proposed . . . [and] changes to the existing 800 MHz band must take into account how border areas would be affected.”⁴⁶ Boeing also believes that the realignment proposals can disrupt “the detailed, individualized bilateral coordination agreements” if careful consideration is not given to the effect that a realignment plan will have on the border regions.⁴⁷ As the comments clearly demonstrate, none of the proposed plans provide an adequate solution for licensees in the border regions. For any plan to even be considered, it must adequately address spectrum use in the border region.

A. Spectrum Must Be Available For Licensees In The Border Regions

Consumers is troubled that if the Commission implemented any of the realignment plans, not enough spectrum would be allocated for licensees who operate in the border regions. As

⁴⁵ *NPRM* at ¶ 33.

⁴⁶ Comment of Public Safety Improvement Coalition, WT Docket No. 02-55 at Exhibit A, tab 3, p. 6 (May 6, 2002) (“*Public Safety Improvement Coalition Comments*”).

Supreme Radio notes, “the Commission’s rules for operation in regions bordering Canada and Mexico authorize operation on far fewer channels than are authorized for the rest of the 48 contiguous states.”⁴⁸ If the Commission decides to implement a realignment plan, it must ensure that an adequate amount of spectrum is allocated for licensees along the border regions.

B. The State Of New York’s Proposal To Address The Border Region Issues Is Not Appropriate

The State of New York offered a proposal in its comments on how to realign the Canadian border region if the Commission adopts Nextel’s proposal. Under New York State’s plan, the 800 MHz band would be divided between Public Safety licensees and SMR/Enhanced SMR licensees. Business and I/LT licensees would be relocated to Nextel’s spectrum holdings in the 700 and 900 MHz band. If Nextel’s spectrum does not accommodate Business and I/LT licensees, then additional spectrum could be allocated from the Public Safety allocations in the 800 MHz band.⁴⁹

This proposal would give rise to many of the problems inherent in the Nextel proposal in general. As many commentators pointed out, the 700 and 900 MHz spectrum is inadequate as replacement spectrum for Business and I/LT licensees for a number of reasons.⁵⁰ One reason is that Nextel does not have a nationwide license for any of this spectrum. For example, Nextel is

⁴⁷ Comment of Boeing Company, WT Docket No. 02-55 at 12 (May 6, 2002) (“*Boeing Comments*”).

⁴⁸ Comment of Supreme Radio Communications, Inc., WT Docket No. 02-55 at 14 (May 6, 2002).

⁴⁹ Comment of Statewide Wireless Network, New York State Office for Technology, WT Docket No. 02-55 at 15-17 (May 6, 2002) (“*New York State Comments*”).

⁵⁰ See e.g. Comments of Ad Hoc Wireless Alliance, WT Docket No. 02-55 at 4-5 (May 6, 2002).

not the Guard Band Manager for Major Economic Area No. 41, which includes the Canadian border for all of Montana and Idaho. In addition, the 900 MHz band is inferior to the 800 MHz band because the propagation characteristics are worse and the channel bandwidth is half of the 800 MHz band.

Additionally, there are many flaws in this proposal that are unique to the Canadian Border region. Business and I/LT licensees cannot use the 700 MHz band spectrum on a primary basis. As New York State concedes, “the 700 MHz Guard band is . . . encumbered in the Canadian border areas, due to Canadian Digital television allotments, and a US/Canadian Letter of Understanding that designates US 700 MHz Public Safety and Commercial services [in the United States] as secondary to Canadian broadcast television services.”⁵¹

Spectrum that can be licensed only on a secondary basis is not acceptable as replacement spectrum. New York State recognizes that it would be inappropriate for many licensees, such as Consumers, to utilize the 700 MHz spectrum to meet their needs.⁵² As a number of commentators point out, utilities and other licensees cannot license spectrum on a secondary basis because it directly conflicts with their need “for advance planning and system enhancement to help ensure safe and reliable service.”⁵³ Therefore, Consumers and many other Business and I/LT licensees cannot license spectrum in the 700 MHz band, in the border regions or otherwise.

The 900 MHz band would give rise to similar problems. Not only is spectrum in the 900 MHz band inferior because of the propagation and bandwidth, but the amount of spectrum that

⁵¹ *New York State Comments* at 21.

⁵² *Id.*

⁵³ *Exelon Comments* at 6.

Business and I/LT licensees would receive is significantly less than the amount for which they are currently allocated. For example, in Region Three where Consumers operates, Business and I/LT licensees would lose 4.25 MHz of spectrum. Even if the 700 MHz band could be licensed on a primary basis, this proposal would still result in a net loss of .25 MHz spectrum for Business and I/LT licensees.

To rectify this situation, New York State has proposed that Business and I/LT licensees could utilize spectrum that is allocated to Public Safety licensees in the 800 MHz band. This solution, however, is not appropriate. Business and I/LT licensees cannot utilize spectrum in both the 800 and 900 MHz band because their land mobile communications systems are not capable of using frequencies in both bands. In order to use both 800 and 900 MHz frequencies, Business and I/LT licensees would have to build two communications systems: one for each band.

Another problem with New York State's proposal is that it assumes that Nextel is the sole licensee in the 900 MHz band. For example, New York State determined that if Business and I/LT licensees in Region Three were relocated to the 900 MHz band they would have 4.25 MHz of spectrum to utilize because 4.25 MHz of 900 MHz spectrum was allocated for SMR and General Category licensees in border region three. This assumes, however, that Nextel is the sole licensee of this spectrum in the border region, which is not the case. The spectrum that can be used as replacement spectrum is limited to spectrum that Nextel has already licensed.

VI. THE COMMISSION SHOULD NOT REALIGN THE 800 MHZ BAND TO ADDRESS PUBLIC SAFETY INTERFERENCE

The comments indicate that the Commission should not adopt a realignment plan that results in both Public Safety and commercial licensees operating in the 800 MHz band because this approach will not resolve the interference problems. In addition, commentors are concerned about the extensive cost and disruption that would result from realignment. One realignment proposal that has garnered significant support is to relocate Public Safety licensees to the 700 MHz band. This solution should be adopted if, after fully investigating the causes of interference, the Commission determines that it is necessary to modify the current allocations.

A. There Is Virtually No Support In The Comments For A Realignment Proposal That Would Result In Both Public Safety And Commercial Licensees Operating In The 800 MHz Band

The Commission has requested comments on various ways to eliminate harmful interference to Public Safety licensees. A number of commentors proposed that the Commission realign the 800 MHz band to accomplish this task. However, the comments demonstrate that realigning the 800 MHz band by itself may not resolve the interference problems if both Public Safety and commercial licensees continue to operate in the 800 MHz band.

1. The Record Does Not Support The Conclusion That In-Band Realignment Of Public Safety Licensees Will Effectively Resolve Interference Caused By Intermodulation

Commentors express legitimate concern that realigning the 800 MHz band could impose tremendous costs “without even making a substantial dent in the interference problem.”⁵⁴ Public Safety licensees such as the San Francisco Bay Area Rapid Transit warn, “there is no guarantee that the desired results would be achieved” by relocating Public Safety licensees within the 800 MHz band.⁵⁵ Even Nextel recognizes that technical solutions would need to be implemented to resolve the interference problems if both Public Safety and Commercial licensees continue to operate in the 800 MHz band.⁵⁶

Many of the commentors note that if the Commission realigned the 800 MHz band, it would also be necessary to implement technical measures. Motorola advises that the in-band realignment plans “will all need to be augmented with other remedies” because realignment will not completely eradicate interference.⁵⁷ Exelon concurs that “it is altogether likely that it would still be necessary to explore technical solutions . . . even after completing an onerous and expensive rebanding.”⁵⁸

In regard to comments advocating both realignment and technical solutions, no evidence has been presented concerning the relative benefits of each type of measure. Given that technical

⁵⁴ *API Comments* at 5.

⁵⁵ Comment of San Francisco Bay Area Rapid Transit, WT Docket No. 02-55 at 3 (May 6, 2002).

⁵⁶ Comments of Nextel Communications, Inc., WT Docket No. 02-55 at 23-25 (May 6, 2002).

⁵⁷ *Motorola Comments* at 17.

⁵⁸ *Exelon Comments* at 4.

solutions have proven to be extremely effective, the commentors advocating realignment have thus failed to establish that it would add appreciable efficacy to technical solutions.

The comments indicate that in-band realignment proposals are particularly ineffective at alleviating intermodulation interference because it “is dependent on the combination of frequencies transmitted from the same site or nearby sites by one or more CMRS carriers.”⁵⁹ The United Telecom Council notes that “no ‘reshuffling’ of user pools will eliminate interference, especially intermodulation.”⁶⁰ TRW concurs that “band restructuring plans . . . do not reduce intermod by themselves.”⁶¹ Even Motorola, Nextel’s equipment manufacturer, agrees that “rebanding would not eliminate the probability of IM interference to public safety.”⁶² According to Nextel, however, this “is the primary interference mechanism involved in CMRS - public safety interference.”⁶³ The Commission should not implement an approach that does not address the primary cause of Public Safety interference

2. Business And I/LT Licensees Should Not Be Used As A Buffer Against Digital SMR Interference

Another problem with some of the realignment proposals is that Business and I/LT licensees are used as a buffer to protect Public Safety licensees from interference. The NAM and

⁵⁹ *Motorola Comments* at 18.

⁶⁰ *UTC Comments* at 10.

⁶¹ Comment of TRW, Ohio MARC Program Office, WT Docket No. 02-55 at 15-17 (May 6, 2002).

⁶² *Motorola Comments* at 18.

⁶³ 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*”).

FCC realignment proposals separate Public Safety, Business and I/LT, and cellular SMR licensees into three separate groupings, with Business and I/LT licensees in the middle. The perceived benefit of this arrangement is that it “creates a barrier against transmitter sideband noise and receiver overload to public safety without the spectrum inefficiency of a guard band.”⁶⁴ Consumers strongly opposes this arrangement as a solution to the interference that Nextel is creating because Business and I/LT licensee spectrum should not be used as “de facto” guard band to protect Public Safety licensees from interference because communications essential to our nation’s critical infrastructure industries operate in these bands. Consumers submits that, to the extent that Nextel is causing interference, the Commission should implement a solution to this matter that requires the interfering party to remedy it, rather than placing another class of licensee at risk of receiving it.

B. The Comments Reveal The Extensive Cost And Disruption That Would Result From Realignment

The comments confirm Consumers’s legitimate concerns about the enormous costs and the extensive disruption that will be imposed as a result of any realignment plan.

1. Realigning The 800 MHz Band Will Be Extremely Costly

Motorola estimates that Nextel’s plan could cost up to \$2.4 billion just to relocate Business and I/LT licensees out of the 800 MHz band.⁶⁵ Relocating Public Safety licensees

⁶⁴ *Id* at 6.

⁶⁵ *Motorola Comments* at 25.

within the 800 MHz band could cost up to \$1.5 billion.⁶⁶ In-band relocation is also extremely expensive because some equipment may not be able to be retuned or reused. For example, Motorola estimates that “approximately 30 to 40 percent of the 800 MHz mobiles/portables could not be retuned and would need to be replaced with new equipment.”⁶⁷

Motorola states that Nextel’s plan would cost almost \$4 billion dollars just to relocate Public Safety, Business and I/LT licensees. Consumers believes that Motorola’s estimate of the relocation costs may be conservative. TXU Business Services spent \$40 million relocating its networks to the 900 MHz band,⁶⁸ Entergy estimates that its relocation costs would be over \$100 million⁶⁹ and Motient estimates that “the cost of replacing [its] subscriber equipment and network infrastructure would be in excess of \$990 million.”⁷⁰ Based on these projections, it seems doubtful that \$2.4 billion would cover the relocation costs of all Business and I/LT licensees. In addition, Motorola’s \$4 billion cost estimate does not even include the cost of relocating SMR licensees such as Southern LINC, which estimates that it spent over \$330 million to build its system.⁷¹ Consumers believes that the total costs of Nextel’s realignment plan could easily exceed \$5 billion dollars.

⁶⁶ *Motorola Comments* at 25.

⁶⁷ *Motorola Comments* at 26.

⁶⁸ Comments of Carolina Power and Light Company and TXU Business Services, WT Docket No. 02-55 at 16 (May 6, 2002) (“*Carolina and TXU Comments*”).

⁶⁹ Comments of Entergy Corporation and Entergy Services, Inc., WT Docket No. 02-55 at 22 (May 6, 2002).

⁷⁰ Comments of Motient Communications Inc., WT Docket No. 02-55 at 10 (May 6, 2002).

⁷¹ Comments of Southern LINC, WT Docket No. 02-55 at 39 (May 6, 2002).

If licensees are required to relocate, they should be fully reimbursed for any relocation costs that are expended. The Commission has consistently held that the party that benefits from the relocation should pay the relocation costs of those licensees that are involuntarily moved.⁷² The Court of Appeals affirmed this policy because it allows incumbent licensees to continue their operations, which is an important goal of the Commission.⁷³ Congress even recognizes that the most equitable solution is to require the party that benefits from the relocation to pay the associated costs. In 1999, Congress passed legislation that requires federal agencies to be reimbursed for the costs they incur in making spectrum available by the party receiving the benefit.⁷⁴

In this case, Nextel is the principal beneficiary of realigning the 800 MHz band because the realignment plans are designed to prevent Nextel from causing interference to Public Safety licensees. Otherwise, Nextel would be obligated to resolve the interference through its own efforts. In addition to distributing the cost of rectifying the interference it is causing, Nextel also is seeking contiguous spectrum in order to introduce a “broader range of technology options,” which cannot be implemented on non-contiguous spectrum.⁷⁵ Although Nextel ostensibly proposed to realign the 800 MHz band to benefit Public Safety licensees, a closer investigation

⁷² 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).

⁷³ *Teledesic LLC v. FCC*, 275 F.3d 75, 86 (D.C. Cir. 2001).

⁷⁴ *Strom Thurmond National Defense Authorization Act for Fiscal Year 1999*, P.L. No. 105-261, 105th Cong. § 1064 (1998).

⁷⁵ SEC Form 10-K, Annual Report for the Fiscal Year Ended Dec. 31, 2001 at 14.

shows that Nextel is really advancing its own interests and benefits the most from realigning the 800 MHz band. If realignment is implemented to address Public Safety interference, the Commission must ensure that the cost causer pays. This will require that the funds be available and set aside for payment to relocatees before relocation commences.

2. Realignment Would Be Terribly Disruptive To Implement

Not only would realignment impose a tremendous financial burden, but it would also be terribly disruptive. As Boeing points out in its comments, equipment may not be available because of the sharp increase in demand and businesses may be unable to conduct their normal operations while they relocate their communications systems.⁷⁶ In addition, any realignment plan will be disruptive because it will “place great strain on personnel and other resources during this transition period.”⁷⁷ As the City of Baltimore notes, moving its communications system to “other frequencies would be extremely difficult in terms of . . . logistics.”⁷⁸

This is particularly true for Public Safety and other critical infrastructure industries because these entities “need a communications system that is always operating.”⁷⁹ Consumers and other commentators recognize that subjecting Public Safety and other critical infrastructure licensees “to such massive disruption to solve interference problems created by commercial operations in the band is not in the public interest and would jeopardize public safety.”⁸⁰

⁷⁶ *Boeing Comments* at 7.

⁷⁷ Comments of New York City Transit Authority, WT Docket No. 02-55 at 9 (May 6, 2002).

⁷⁸ *City of Baltimore Comments* at 3.

⁷⁹ *White County Comments* at 3.

⁸⁰ *Carolina and TXU Comments* at 20.

To minimize the disruption to existing licensees, the comments demonstrate that a completely new communications system would need to be built for relocated licensees.⁸¹ For Public Safety and critical infrastructure licensees, it is particularly important that gaps in communications not occur at sensitive moments, which could compromise “critical services in emergency situations.”⁸² Any plan that relocates Public Safety or critical infrastructure licensees would have to provide these licensees the opportunity to build a parallel system to ensure that the emergency services that they provide are not interrupted. Furthermore, relocation must take place in a predictable fashion. Licensees must be able to plan for relocation as a unified undertaking and must be afforded a sufficient period of time to carry it out. Finally, any relocation framework must provide relocatees with the same capacity and functionality.

3. Realignment Would Take Much Longer To Implement Than Technical Resolutions

In the *NPRM* the Commission notes that it intends to “move swiftly” to resolve the interference problems.⁸³ As many commentators point out, however, realigning the 800 MHz band will not resolve the interference quickly. In fact, it would take a number of years before a realignment plan could be successfully implemented. It took TXU Business Services “nearly seven years . . . to relocate its networks to 900 MHz operations.”⁸⁴ Skitronics estimates that it “will take from four to five years” to complete realignment assuming that suitable equipment is

⁸¹ *Motorola Comments* at 23; Comments of E.F. Johnson, WT Docket No. 02-55 at 2 (May 6, 2002).

⁸² *Exelon Comments* at 6.

⁸³ *NPRM* at ¶ 3

⁸⁴ *Carolina and TXU Comments* at 16.

available.⁸⁵ SCANA “believes that it would require approximately five years” to relocate to another band.⁸⁶ Even retuning within the 800 MHz band takes a tremendous amount of time. The City of Philadelphia estimates that “ a minimum of three to five years will be required to implement either the Nextel plan or the NAM plan.”⁸⁷ The City of Fort Lauderdale concurs that “mandating specific relocation times in anything less than a three to five year period would be difficult if not impossible for local governments.”⁸⁸ The comments show that it will take a minimum of five years to implement any realignment plan.

Adopting a plan that cannot be implemented for a number of years will not resolve the interference problems quickly. Instead, the Commission should adopt the market-based approach because it offers an immediate and demonstrably effective solution. As discussed above, the market-based approach utilizes technological solutions that are already in use to resolve interference problems. As a result, interference to Public Safety licensees could be alleviated rapidly through this approach.

C. Only The 700 MHz Plan Offers A Workable Realignment Plan

The only realignment plan that does not suffer from serious shortcomings is the proposal by the Coalition for Constructive Public Safety Interference Solutions (the “Coalition”) to relocate Public Safety licensees to the 700 MHz band. Consumers believes that it is not appropriate at this time to relocate any 800 MHz licensees. If the Commission decides it is

⁸⁵ *Skitronics Comments* at 17.

⁸⁶ Comments of SCANA Corporation, WT Docket No. 02-55 at 22 (May 6, 2002).

⁸⁷ *Public Safety Improvement Coalition Comments* at 6.

⁸⁸ Comments of City of Fort Lauderdale, WT Docket No. 02-55 at 8 (May 6, 2002).

necessary, however, relocating Public Safety licensees to the 700 MHz band appears to be the most appropriate solution because, as compared to the Nextel proposal, it would provide a much greater likelihood of actually addressing the interference problem and would result in less disruption and cost.⁸⁹ Even the National Association of Manufacturers, which proposed its own realignment plan, recognizes that this plan is the most appropriate one because it “would achieve maximum separation from the 800 MHz systems with a cellular architecture” and offers the best long term solution.⁹⁰

Significantly, a number of Public Safety licensees have also expressed interest in this proposal. The Madison County East Transit District, for example, believes that the “proposal is quite attractive and must be seriously considered by the Commission.”⁹¹ The Bergen County Police Department even requests that the Commission present to “Congress a proposal that relocates public safety” to the 700 MHz band.⁹² APCO also recognizes that the 700 MHz band could be used by Public Safety licensees and requested that the Commission “evaluate whether additional 700 MHz band Public Safety spectrum allocations would be appropriate.”⁹³

Congress also recognizes that relocation of Public Safety to 700 MHz could resolve the interference problems and has enacted legislation to postpone the 700 MHz auction so that the

⁸⁹ If the Commission adopts the 700 MHz plan, it must implement measures so that Business and I/LT licensees, which will remain in the 800 MHz band, are not subject to harmful interference from *any* licensees.

⁹⁰ *NAM Comments* at 4.

⁹¹ Comments of Madison County East Transit District, WT Docket No. 02-55 at 9 (May 6, 2002).

⁹² Comments of Bergen County Police Department, WT Docket No. 02-55 at 6 (May 6, 2002).

⁹³ Ex Parte Comments of the Association of Public-Safety Communications Officials International, Inc., WT Docket No. 99-168, GN Docket No 01-74 at 2 (May 2, 2002).

Commission would have an opportunity to examine the 700 MHz plan.⁹⁴ In the legislation, Congress urges the Commission not to “hold the 700 megahertz auction before the 800 megahertz interference issues are resolved or a tenable plan has been conceived.”⁹⁵ This clearly demonstrates that Congress wants the Commission to consider relocating Public Safety licensees to the 700 MHz band to resolve their interference problems.

One benefit of this proposal is that it provides a source of funds to relocate Public Safety licensees to the 700 MHz band. Specifically, the Coalition recommends that the Commission auction the 800 MHz Public Safety spectrum, which would be vacated as a result of Public Safety relocating to the 700 MHz band, and use the proceeds to fund the relocation of Public Safety licensees to the 700 MHz band. If the Commission does not believe that the auction proceeds would be sufficient to relocate Public Safety licensees, the Commission could ask Congress to allocate additional funds.

VII. THE FCC SHOULD INITIATE A FURTHER NOTICE OF PROPOSED RULEMAKING TO ESTABLISH THE FRAMEWORK FOR ADDRESSING THE INTERFERENCE PROBLEM

As set forth above, this proceeding has given rise to numerous issues and a variety of viewpoints. Furthermore, a number of proposals have been developing since the comments were filed and therefore have not yet been in a posture for parties to comment on. Consumers submits that, if the FCC does not adopt a market-based approach that builds on existing rules, it would be appropriate to issue a Further Notice of Proposed Rulemaking so that there will be a full

⁹⁴ *Auction Reform Act of 2002*, Pub. L. No. 107-195, (2002).

⁹⁵ *Id.* at § 2(4)

opportunity for input on the direction that the FCC takes in this matter. Consumers anticipates that significant issues, and possibly new proposals, will be raised in the reply comments. Based on the extraordinary interests at stake, providing for further comments would be the most appropriate course of action.

VIII. CONCLUSION

The comments in this proceeding overwhelmingly show that band realignment cannot be reasonably undertaken at this point and may never be a viable solution to interference. Fortunately, the comments identify an effective and efficient alternative to realignment in the form of a market-based solution. Based on the past success of technical measures, parties have the means at their disposal to prevent interference and the Commission need only confirm and reinforce the obligation to do so. Consumers submits that this should be the first approach to this problem and that the Commission should only adopt more radical measures if and when their extraordinary costs can be justified.

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

Respectfully submitted,

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Dated: August 7, 2002

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 Consumers Energy Company" to be hand-delivered to each of the following:

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