

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

In the Matter of)
)
Creation of Interstitial 12.5 kHz Channels in the) WP Docket No. 15-32
800 MHz Band Between 809-817/854-862 MHz) RM-11572

COMMENTS OF THE UTILITIES TELECOM COUNCIL

The Utilities Telecom Council (“UTC”) hereby files the following comments in response to the Commission’s Notice of Proposed Rulemaking in the above-referenced proceeding.¹ UTC echoes the comments on the record that recommend that the Commission refrain from adopting its proposal to implement interstitial 12.5 kHz channels in the 800 MHz band at this time. If the Commission does adopt its proposal to implement interstitial channels, it must ensure that incumbent systems are protected against interference from new operations on interstitial channels; 2) that interstitial 12.5 kHz operations should be licensed on a secondary basis to 25 kHz operations; and 3) that the Commission assure that critical infrastructure industries have immediate access to the interstitial 12.5 kHz channels.

I. Introduction

UTC is the trade association for the information and technology interests of electric, gas and water utilities, pipeline companies, and other critical infrastructure industries. Its members own, manage or control extensive communications infrastructure and networks that they use to support the safe, reliable and secure delivery of essential services to the public at large. These networks include 800 MHz wireless communications systems that operate in the Mid-Band (i.e. 809-817/854-862 MHz band) where the Commission proposes to introduce 12.5 kHz high power offset interstitial channels. Utilities and other critical infrastructure industries have invested millions of dollars in these systems; and, moreover, these systems are used to protect the safety of utility personnel and the public at large. Any interference to them risks lives.

Utilities rely on 800 MHz systems because they have protected service contours, so there is some

¹ *Creation of Interstitial 12.5 kHz Channels in the 800 MHz Band Between 809-817/854-862 MHz*, Notice of Proposed Rulemaking, WP Docket No. 15-32, 80 FR 15723 (Mar. 25, 2015)(hereinafter “NPRM”).

guarantee that communications won't be subject to interference. The proposal to introduce interstitial channels undermines the reliability of these systems by suggesting a lower standard for interference protection than what is currently used to coordinate co-channel systems in the band. Moreover, it would authorize these interstitial channels on a co-primary basis to systems operating on the 25 kHz channels. Hence, utilities that operate on the 25 kHz channels would not have any immediate right to object to interference from systems on interstitial channels. Instead, utilities would be facing the prospect of potential interference and endless disputes with the operators on the interstitial systems that are causing the interference. Given the need to ensure reliable communications to ensure the safety of utility personnel and the public, the introduction of interstitial channels would threaten to displace utility systems in the 800 MHz band as a practical matter.

While it is true that there is a shortage of available frequencies in the 800 MHz band, this has been due mainly to the rebanding process, which has frozen the availability of new frequencies and now has created further congestion in the band due to the relocation of systems into the Mid-Band. UTC is concerned that the introduction of interstitial channels in the Mid-Band will further crowd-out existing systems, rather than create additional capacity that utilities could use. Unless utilities and other critical infrastructure industries are able to access interstitial channels on a priority basis, it is likely that other commercial and public safety entities will access these channels to the exclusion of utilities.

In the process, the introduction of these additional narrowband channels will make it more difficult for utilities to use wideband technologies to increase capacity on existing systems. This runs contrary to Commission policy to promote broadband or wideband channelization in other contexts, as well as within the 800 MHz band itself. It also runs contrary to the technology direction that equipment manufacturers are following, based on the FCC's policies. As such, the proposal represents a dangerous departure and not a positive development in FCC policy.

That said, if the Commission does adopt its proposal, UTC urges the Commission to adopt interference standards that adequately protect operations on the existing 25 kHz channels; to only authorize interstitial channel operations on a secondary basis; and to promote utility and CI access to any

available interstitial channels in order to meet their increasing capacity requirements. UTC appreciates the effort by the Commission to increase the effective use of the 800 MHz band, but on balance, the benefits do not outweigh the potential negative impact that would likely result from the introduction of interstitial channels into the 800 MHz band. The Commission should refrain at this time from adopting interstitial channels and allow wideband technologies to become more heavily used in the band.

II. The Commission Should Protect 25 kHz Operations from Interference from Interstitial Channel Operations.

In the NPRM, the Commission invites comment about the potential for interference from interstitial channels, and it asks whether the interference standard should be based on the F(50,10) contour rather than the F(50,50) contour.² UTC remains concerned about the potential for interference to operations on the 25 kHz channels that would result from the implementation of 12.5 kHz interstitial channels.³ The potential for interference will depend in large part on the geographic separation of systems that operate on adjacent channels. On that point, separation would be determined so that there would be no overlap of the service contour and the interference contour of the existing 25 kHz channel systems and the proposed 12.5 kHz interstitial channel systems, and the contour would be based on the F(50,50) curves for both the service and interfering contours.⁴ Proponents of the F(50,50) contour claim that this standard “represents an appropriate balance of promoting more intensive use of spectrum without burdening applicants with the need to conduct an overly complex and costly coordination analysis.”⁵

UTC believes that the Commission should not compromise the existing 22 dBu (50,10) contour interference protection standard. Proponents have failed to provide a technical justification for a lower standard for interference protection. Moreover, a lower interference protection standard would pose an unacceptable risk to the safety of utility operations that rely on interference-free communications on these 800 MHz systems. The Commission must ensure that 25 kHz systems are afforded the same level of protection that currently applies between co-channel 25 kHz systems in the 800 MHz band; otherwise the

² *Id.* at ¶¶21, 25.

³ *See* Comments of UTC in RM-11572 at 3 (Nov. 9, 2009).

⁴ NPRM at ¶25.

⁵ *Id.* at ¶25, *citing LMCC Oct. Ex Parte at 2.*

introduction of interstitial channels jeopardizes the safety and reliability of utility communications systems.

III. The Commission Should Adopt Additional Protections Against Interference.

UTC appreciates the effort by the Commission to address its concerns about introducing interstitial channels while the rebanding process is still ongoing.⁶ That said, additional safeguards are needed to protect against the potential for interference. In that regard, the Commission invites comment on whether or not to extend interference protection to licensees on the new full power interstitial channels and, if so, what interference criteria should be used to protect these licensees.⁷

UTC suggests that the Commission should only license interstitial channels on a secondary basis relative to operations on existing 25 kHz channels. If the Commission licenses operations on interstitial channels on a secondary basis, it would avoid inevitable disputes that might arise over interference with operations on existing 25 kHz channels. It would also recognize the need to protect the important communications systems – such as utility and critical infrastructure industries -- that are on these existing 25 kHz channels. Therefore, UTC urges the Commission to authorize interstitial operations only on a secondary basis.

IV. The Commission Should Promote Utility Access to Interstitial Channels

If the Commission does introduce interstitial channels in the 800 MHz band, it should promote utility access to these new channels in order to address utilities' increasing capacity needs. In that regard, the Commission could provide a preference for utilities to access the interstitial channels, much the same way that it proposes to provide a preference for public safety.⁸ This would be consistent with Commission policy, which has provided a preference for utilities and other critical infrastructure industry entities to access 800 MHz channels that were vacated by Sprint/Nextel as part of the rebanding process.⁹

⁶ *Id.* at ¶18 (proposing to make interstitial channels in the Mid-Band available for licensing in any NPSPAC region only after 800 MHz rebanding is completed in that region.)

⁷ *Id.* at ¶27.

⁸ *Id.* at ¶31 (seeking comment on “whether public safety eligibles should receive preferential or exclusive access to interstitial channels for some period of time.”)

⁹ *Improving Public Safety Communications in the 800 MHz Band*, Report and Order, Fifth Report and Order, Fourth

The same policy rationale that supported a preference for utilities and other critical infrastructure industry entities in the context of 800 MHz rebanding applies with equal force here because a preference for critical infrastructure industry entities would promote public safety related communications.¹⁰ UTC submits that the need to provide such a preference is made more compelling by the fact that utilities and critical infrastructure industries still have not been allocated any additional spectrum, despite increasing communications demands. Thus, the Commission should provide a preference for utilities and CII to access the interstitial channels, particularly if it provides a preference for public safety entities.

V. The Commission Should Promote the Use of the 800 MHz Band for Wideband Operations.

In the NPRM, the Commission invited comment on UTC's suggestion that the Commission promote the use of the band for wideband technology.¹¹ UTC believes that the case for promoting wideband technology in the 800 MHz band is even stronger now than when UTC filed its comments on EWA's petition in 2009. As the Commission notes in the NPRM, it has previously provided rules that allow for the aggregation of existing channels to allow for wideband operations.¹² More recently, the Commission has amended its rules to allow EA-based 800 MHz SMR licensees operating in the 813.5-824/858.5-869 MHz portion of the 800 MHz band to provide wireless services across aggregated channels, without unnecessary bandwidth or channelization limitations.¹³ This is part of a larger trend to promote access to broadband spectrum to support a variety of applications and IP-based protocols.¹⁴

Memorandum Opinion and Order and Order, WT Docket No. 02-55 at ¶4 (Aug. 6, 2004).

¹⁰ *Id.* at n. 11 (explaining that providing a preference for CII "is appropriate ... because it recognizes that the very nature of the services provided by the included entities involves potential hazard to life and property and that CII entities often work hand in hand with public safety officials at the scene of an incident. Indeed, reliable CII radio communications have long proven essential in speeding recovery from natural or man-made disasters.")

¹¹ NPRM at ¶20.

¹² *Id.*, citing 47 C.F.R. §90.645(g) of the Commission's Rules.

¹³ *Improving Spectrum Efficiency Through Flexible Channel Spacing and Bandwidth Utilization for Economic Area-based 800 MHz Specialized Mobile Radio Licensees*, Report and Order, WT Docket No. 12-64 at ¶8 (May 24, 2012).

¹⁴ *See e.g.* Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees, WT Docket No. 10-153, *Second Report and Order, Second Further Notice of Proposed Rulemaking, Second Notice of Inquiry, Order on Reconsideration, and Memorandum Opinion and Order*, FCC 12-87 (rel. Aug. 3, 2012) ("*Wireless Backhaul 2nd R&O*") (allowing wider channels in the 5925-6425 MHz band (Lower 6 GHz band) and in the 10700-11700 GHz band (11 GHz band)).

