

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

In the Matter of)	
)	WP Docket No. 07-100
National Public Safety Telecommunications Council's 4.9 GHz National Plan Recommendations Final Report.)	PS Docket No. 06-229
)	WT Docket No. 06-150
)	

COMMENTS OF THE UTILITIES TELECOM COUNCIL

Pursuant to Section 1.405 of the Commission's Rules, the Utilities Telecom Council ("UTC") hereby files its comments in response to the Commission's Public Notice inviting comment on the National Public Safety Telecommunications Council's 4.9 GHz National Plan Recommendations Final Report ("NPSTC Final Report") in the above referenced proceeding.¹ UTC supports the NPSTC Final Report, because it recommends that critical infrastructure industry ("CII") entities be eligible on a co-primary basis with public safety agencies to license spectrum in the band, as more fully explained below. In addition, UTC agrees that fixed point to point and point-to-multipoint operations should be permitted on a primary basis in the 4.9 GHz band, consistent with the recommendations in the NPSTC Final Report. CII access to the band on a co-primary basis for fixed as well as mobile operations on a primary basis will promote effective use of the band, consistent with the FCC's goals in its *Fourth Report and Order and*

¹ *Public Safety and Homeland Security Bureau Seeks Comment on National Public Safety Telecommunications Council's 4.9 GHz National Plan Recommendations Final Report*, Public Notice, DA 13-2096, 2013 WL 5832893 (Oct. 30, 2013).

*Fifth Notice of Proposed Rulemaking.*² These recommendations in the NPSTC Final Report are consistent with comments on the record by UTC and others that support expanded eligibility for CII use of the band on a primary basis³ and for fixed use of the band on a primary basis.⁴

I. INTRODUCTION

UTC is an international trade association for the telecommunications and information technology interests of utilities and other critical infrastructure industries. Its members own, manage and control extensive communications networks that they use to support the safe, reliable and efficient delivery of essential electric, gas and water services to the public at large. These members include large investor-owned utilities that may serve millions of customers across multi-state service territories, as well as smaller rural electric cooperative utilities or municipal utilities that serve only a few thousand customers in isolated communities or remote regions of the country.

Utilities and other critical infrastructure industry entities are initiating smart grid and other applications that require additional communications capabilities. Networks need increased

² *Amendment of Part 90 of the Commission's Rules*, Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking, WP Docket No. 07-100, 27 FCC Rcd. 6577 (2012)(hereinafter *Fourth Report and Order and Fifth Further Notice of Proposed Rulemaking*).

³ Comments of the American Petroleum Institute, the Energy Telecommunications and Energy Association, and the National Rural Electric Cooperative Association in WP Docket No. 07-100 at 4-7; Comments of Cambium Networks Ltd at 1 (filed Oct. 1, 2012); Comments of the Edison Electric Institute in WP Docket No. 07-100 at 5-6 (filed Nov. 1, 2012); Comments of Great River Energy at 1 (filed Nov. 1, 2012); Comments of Motorola Solutions, Inc. at 4-5 (filed Nov. 1, 2012); and Comments of Southern Company Services at 2-9 (filed Nov. 1, 2012). *See also* Comments of the American Association of State Highway and Transportation Officials at 18 (filed Oct. 31, 2012)(hereinafter Comments of AASHTO); Comments of the Association of Public-Safety Communications Officials-International, Inc. at 3-4 (filed Nov. 1, 2012)(hereinafter "Comments of APCO"); Comments of Forestry Conservation Communications Association, International Association of Fire Chiefs, and the International Municipal Signal Association at iii, 14-15 (filed Nov. 1, 2012) (hereinafter "Comments of FCCA, IAFC and IMSA), and Comments of National Public Safety Telecommunications Council at 9 (filed Nov. 1, 2012)(hereinafter "Comments of NPSTC")(all of these public safety groups generally supporting CII access to the 4.9 GHz band)..

⁴ See e.g. Comments of API, ENTELEC and NRECA at 7 (filed Nov. 1, 2012)(emphasizing that "[t]he 4.9 GHz Band Should Be Transitioned To Fixed Use Only And Made Available In Conjunction With Mobile Applications In The 700 MHz Band.")

capacity and coverage to support greater visibility further into the grid, water works or pipeline. For some applications, latency needs to be exceptionally low. Moreover, reliability and resiliency of the network needs to be exceptionally high, so that communications are maintained, especially during emergencies such as power outages.

In order to meet their increasing communications demands, utilities and CII need access to additional spectrum that supports the capacity and coverage and other requirements that utilities and CII must meet. Utilities and other CII entities do not currently have access to suitable spectrum to meet the demands from smart grid and other applications. Land mobile spectrum that they use is narrowband and subject to interference and congestion. Microwave spectrum has been reallocated for commercial services and utilities and CII have been relocated to higher frequency bands. Unlicensed spectrum is subject to power limitations and interference, reducing its coverage and reliability. Hence, utilities and CII need access to spectrum that provides the capability for wideband fixed and mobile applications to provide additional wide-area coverage and backhaul.

UTC agrees with the NPSTC Final Report that “CII plays a vital role in incident response to protect life and property, [and that] this 4.9 GHz band could enhance the delivery of public safety services by CII.”⁵ As such, the NPSTC Report underscores the important public safety role that CII serve, and “[t]he report is also designed to promote access and sharing with critical infrastructure entities who frequently work closely with public safety agencies including the provision of shared networks and services.”⁶

Therefore, UTC is pleased for the opportunity to comment on NPSTC’s Final Report in this proceeding. Consistent with its comments in this proceeding and the recommendations in

⁵ NPSTC Final Report at 10.

⁶ *Id.* at 2.

NPSTC's Final Report, UTC reiterates its support for expanded eligibility to permit CII use of the band on a primary basis in order to promote more effective use of the band.⁷ Also, in order to promote increased efficiency and more intensive use of the band, UTC reiterates its support for wider channels and higher power for fixed point to point and point-to-multipoint operations.⁸ As more fully described below, this is consistent with the recommendations in NPSTC's Final Report and will result in more reliable paths and longer range, thereby promoting greater use of the band particularly in difficult environments and rural areas. Also consistent with NPSTC's Final Report, UTC reiterates its support for allowing fixed point to point and point-to-multipoint operations, including narrowband and broadband operations, to be licensed on a primary basis.⁹ This will promote greater use of the band by CII for smart grid and other mission critical applications, many of which are fixed operations,¹⁰ and which need primary status to ensure reliability.

II. The Commission Should Adopt NPSTC's Recommendations for CII Use of the Band.

UTC supports the recommendations in NPSTC Final Report with regard to CII use of the band as follows. Specifically, UTC supports its recommendation to expand eligibility to include CII as defined at Section 90.7 of the Commission's Rules.¹¹ Further, UTC supports its

⁷ See Comments of UTC in ET Docket No. 07-100 (filed Nov. 1, 2012) and Reply Comments of UTC in ET Docket No. 07-100 (filed Nov. 30, 2012).

⁸ *Id.*

⁹ *Id.*

¹⁰ See e.g. Comments of API, ENTELEC and NRECA at 7 (filed Nov. 1, 2012)(emphasizing that "[t]he 4.9 GHz Band Should Be Transitioned To Fixed Use Only And Made Available In Conjunction With Mobile Applications In The 700 MHz Band.").

¹¹ *Id.* at 10-11, citing 47 CFR §90.7.

recommendation to allow for CII access on a co-primary basis with public safety.¹² As the NPSTC Final Report explained, this would provide the assurance that a CII licensee needs “that, once licensed and having invested in implementing a system that supports critical public safety related business needs, they cannot be considered secondary.”¹³ Finally, UTC agrees with the compromise recommendation regarding the amount of spectrum that a CII entity could license, as more fully described below.

Under the compromise recommendation, “CII would have access to license two (5MHz wide) channels on a shared co-primary basis with public safety agencies [and] CII entities may also license the other channels but only with a 30 calendar day notice period.”¹⁴ As the NPSTC Final Report explains, “[t]his notice period serves two purposes. It alerts public safety entities in the same geographical area that a CII entity is planning a system. The public safety entity and the CII entity then have a chance to explore sharing opportunities to enhance communications.” Secondly, “[i]f sharing is not possible, it will allow the public safety entity that is close to licensing a new system the opportunity to declare their need for the 4.9 GHz channels and file an application.”¹⁵ The public safety entity would then have 60 days to file an application with a coordinator, who would determine if both the CII application and the public safety application could be assigned available channels. If so, the coordinator will file both applications with the Commission for processing. If not, the coordinator would give priority to the public safety application and file it with the Commission. As a safeguard, public safety entities would be required to apply within 60 days or construct within a year; and if they don’t, the coordinator

¹² *Id.* at 11.

¹³ *Id.*

¹⁴ *Id.* See also *Id.*, n. 15. (stating that “The NPSTC planning group determined those channels should be 6 and 7.)

¹⁵ *Id.* at 11.

would be permitted to file the CII application with the Commission.¹⁶

This compromise would effectively balance the need of CII for access to spectrum in the near term, while also addressing the concerns from public safety that broader CII access to the band could lead to congestion that could impair public safety's near term communications needs.¹⁷ The 30-day notice process is "intended to be a short-term measure to allow public safety access to the band on a priority basis, so public safety is not excluded from the band due to lead time issues or long funding timeframes," because it would end three years after Commission adoption of the plan. After that, both public safety and CII will have equal access to the band.¹⁸ In the meantime, CII would have immediate and unrestricted access to 10 MHz of spectrum at channels 6 and 7, which would provide CII with access to spectrum that they need to meet their near term needs, as well. As such, UTC supports this compromise as a reasonable balance of the interests that appears workable in practice.¹⁹

III. The Commission Should Promote the Use of the Band for Fixed Operations.

UTC generally supports the NPSTC Final Report recommendations regarding fixed use of the 4.9 GHz band. Specifically, UTC supports the recommendation to allow the aggregation of channels wider than 10 MHz, particularly in rural areas.²⁰ In addition, UTC supports the band

¹⁶ *Id.*

¹⁷ *Id.* at 10 (describing how the public safety representatives in the planning group for the NPSTC Final Report "were worried the band could become a primarily CII band with little or no room for public safety users if opened up for unrestricted CII licensing," and describing how the planning group worked hard to craft a compromise solution that considers the concerns of both public safety and CII parties.")

¹⁸ *Id.* at 11.

¹⁹ The Commission should revisit this process, if it later determines that the process is subject to abuse that is unnecessarily preventing CII access to the band.

²⁰ NPSTC Final Report at 7-8 (stating that "We also recognize the need for greater than 10 MHz bandwidth aggregation and longer path links in rural areas using higher EIRP levels. We recommend those applications to only be granted under waiver and the application should go through the coordination process so both the coordinators and RPC can comment on the impact to current and future users of the band plus recommend mitigation measures.")

plan, which recommends making Channels 14 through 18 available for point to point use as 1 MHz bandwidth channels to support narrowband backhaul on a primary basis.²¹ UTC believes that the Commission should promote the use of this band for fixed as well as mobile applications, and that wider channels and higher power for fixed operations -- particularly in rural areas -- will be important for CII use of the band.

As UTC explained in its previously filed comments in this proceeding, CII use of the band is expected to include many fixed applications, such as SCADA and substation monitoring and control, as well as backhaul for AMI.²² UTC believes that these applications can be coordinated so that fixed use will not preclude mobile uses of the band. To the contrary, fixed use of the band will be complementary to mobile use. For example, it is anticipated that the 4.9 GHz band could serve as a backhaul band for the 700 MHz Public Safety Broadband Network (700 MHz PSBN). The Commission should encourage the use of this band for fixed operations, and wider channels and higher power operations will enable longer links and better performance for backhaul applications, including SCADA and the 700 MHz PSBN which require high reliability to ensure mission critical communications.

As UTC also explained in its previously filed comments, primary status for fixed operations is also important to promote CII use of the band.²³ In that regard, UTC supports the

²¹ *Id.* at 6 (explaining that “[w]e recommend primary status for two reasons. First, these backhaul links typically support mission critical voice traffic that normally operates with primary status on public safety land mobile radio spectrum. A typical use for the links would be to link voice traffic from a radio site to a dispatch center. Second, with the recommendation to implement frequency coordination with the recommendation to use the above specific channels, there is no need for secondary status for this use.”)

²² Comments of the Utilities Telecom Council at 7 (illustrating its survey results that “most of the utilities that responded to the survey indicated that they would use the spectrum for communications backhaul or SCADA.”)

²³ *Id.* at 10 (stating that “[u]tilities and other critical infrastructure industry entities reported that one of the greatest impediments to their use of the 4.9 GHz band would be secondary use restrictions on fixed point to point and point-to-multipoint links for non-broadband uses.”).

NPSTC Final Report recommendation that fixed point to point operations should be licensed on a primary basis, including narrowband operations on Channels 14 through 18. This should enable CII to make effective use of this band to backhaul AMI and other non-broadband applications using fixed point to point links.²⁴ Therefore consistent with NPSTC's recommendation, UTC reiterates its request to remove restrictions on narrowband fixed operations that currently limit them to secondary status.

²⁴ See Comments of the Utilities Telecom Council at 11 (stating that “in order to promote greater and more effective use of the band, UTC urges the Commission to allow utilities and other critical infrastructure industry entities to be licensed on a primary basis in the 4.9 GHz band generally, and to eliminate the current secondary use restrictions in the rules that apply to non-broadband fixed point to point and point-to-multipoint operations in the 4.9 GHz band specifically”) See also *Id.* at n. 11 (noting that “the current secondary use restrictions apply to a) Permanent fixed point to point/multipoint links that deliver narrowband traffic and b) Permanent fixed point to point/multipoint backhaul of traffic originating from public safety bands not designated for broadband (i.e. public safety VHF, UHF, narrowband 700 MHz and 800 MHz) to other networks.”)

CONCLUSION

WHEREFORE, the premises considered, UTC supports the recommendations in the NPSTC Final Report with regard to CII use and fixed operations. Specifically, UTC agrees with NPSTC that CII should be eligible on a co-primary basis and should be able to access 10 MHz of the spectrum immediately upon adoption of the rules by the Commission, while being able to access the remainder of the band, subject to a 30 day notice process that would encourage sharing opportunities and coordination between CII and public safety. This 30 day notice process would be an interim measure and would sunset after three years. UTC also agrees with NPSTC that fixed operations should be allowed to use wider channels and higher power, particularly in rural areas, and that fixed operations should be licensed on a primary basis, including fixed narrowband operations on channels 14 through 18. Expanding eligibility to include CII and authorizing fixed operations on a primary basis would promote the use of the 4.9 GHz band as a complement to the 700 MHz PSBN by allowing utilities and CII entities to backhaul traffic from the 700 MHz PSBN over 4.9 GHz networks.

Respectfully submitted,

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