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

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules	)	WP Docket No. 07-100
	)	

REPLY COMMENTS OF THE UTILITIES TECHNOLOGY COUNCIL, THE EDISON ELECTRIC INSTITUTE, THE NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION AND THE GRIDWISE ALLIANCE

The Utilities Technology Council ("UTC"), the Edison Electric Institute ("EEI"), the National Rural Electric Cooperative Association ("NRECA") and the GridWise Alliance ("GridWise") hereby submit the following reply comments in response to the Commission's Sixth Further Notice of Proposed Rulemaking in the above-referenced proceeding.[1] The comments on the record overwhelmingly support expanding eligibility in the 4.9 GHz band to include utilities and other Critical Infrastructure Industry ("CII") entities as a way to promote more effective use of the spectrum band. Conversely, comments generally oppose expanding eligibility more broadly to include commercial service providers and/or leasing the spectrum because of the risk to the reliability of public safety systems in the band. Finally, the comments on the record support wider channels and higher power limits in order to promote greater capacity and reliability for increasing communications requirements. These comments are consistent with the initial comments filed by UTC, EEI, NRECA and GridWise. As described in

[1] *Amendment of Part 90 of the Commission's Rules*, Sixth Further Notice of Proposed Rulemaking, WP Docket No. 07-100, 83 Fed. Reg. 20011 (2018)(hereinafter "FNPRM").

more detail below, UTC, EEI, NRECA and GridWise reiterate our support for CII eligibility, as well as revisions to the technical rules that will promote investment and encourage more effective use of the band by public safety and CII.

I. The Commission Should Expand Eligibility to Include Utilities and CII to Make More Effective Use of the 4.9 GHz Band While Preserving the Band for Public Safety Purposes.

In the FNPRM the Commission recognized that "[e]xtending eligibility to CII could encourage collaborative investment by public safety and CII users of the 4.9 GHz band to improve response to emergencies that affect both public safety and critical infrastructure."[2] In addition, the Commission observed that "the benefits of coprimary use of the band by both CII and public safety can be realized at slight or no cost to public safety."[3] UTC, EEI, NRECA, and GridWise agree with the Commission on both of these points, and reiterate our support for expanding eligibility in the 4.9 GHz band to include CII on a co-primary basis with public safety.

A. The record supports expanding eligibility to include utilities and CII on a co-primary basis with public safety.

Comments by public safety entities and their organizations support expanding eligibility in the 4.9 GHz band to include CII, consistent with the National Public Safety Telecommunications Council (NPSTC) Band Plan.[4] While some public safety entities depart

[2] FNPRM at ¶70.

[3] *Id.* at ¶71.

[4] *See* Comments of the National Public Safety Telecommunications Council ("NPSTC") in WP Docket No. 07-100 at 1 (filed July 6, 2018)(hereinafter "NPSTC Comments")(stating "NPSTC recommends managed sharing of the spectrum with CII entities and opposes auctioning the band for commercial use.) *Id.*at 22-25 (stating, "NPSTC continues to believe the best option for sharing the spectrum is to open the spectrum to CII eligibles on a shared frequency coordinated basis as set forth previously in the NPSTC National Plan Recommendations…"). Comments of the Region 21 700 MHz Planning Committee in WP Docket No. 07-100 at 13-14 (stating, "Region 21 lends is support to opening the 4.9 GHZ band to CII," and adding that, "Michigan is currently working with several CII entities within the state to provide emergency and disaster communications via the MPSCS") Comments of the Public Safety Communications Council in WP Docket No. 07-100 at 8-9 (filed June 27, 2018)(hereinafter

from the details of the recommendations for CII access to the band in the NPSTC Band Plan, no public safety entities oppose expanding eligibility to include CII.[5] By contrast, all public safety entities oppose expanding eligibility to include commercial entities and/or leasing the band for commercial services. Whereas public safety entities see commercial use of the 4.9 GHz band as a threat to the reliability of public safety communications, they recognize that CII entities are compatible with and complementary to public safety use of the band, which is why they support expanding eligibility to include utilities and other CII entities.[6]

On that point, UTC, EEI, NRECA, and GridWise echo the comments of the Region 21 700 MHz Planning Committee, which "does not consider necessary the requirement that the 4.9 GHz band be used by CII entities to provide 'public safety services,'" because CII use of the channel "within the licensed parameters has no effect on others whether used for 'public safety

"Comments of the PSCC")(stating, "The PSCC fully concurs with allowing CII entities into the band consistent with the NPSTC proposal.")

[5] *See* Comments of APCO International in WP Docket No. 07-100 at 12-13 (filed Jul. 6, 2018)(hereinafter "Comments of APCO")(stating, "the Commission should expand eligibility to CII with the conditions that 1) use is only for communications related to the protection of life, safety, and property, as opposed to general business purposes, and 2 CII use is secondary and preemptible by public safety agencies.") *See also* Comments of the San Francisco Bay Area Rapid Transit District on the Sixth Further Notice of Proposed Rulemaking, WP Docket No. 07-100 at 11-12 (hereinafter "Comments of BART")(stating, "the proposal to allow public safety licensing priority for at least three years is a good one, but as noted above, BART's position is that planned public safety uses of the spectrum should be protected much longer, especially for complex projects," adding that "the proposed "notice" process by the Commission (allowing a public safety entity only 30 days to file an application for the same channels sought by another entity) is not acceptable – it may not give public safety entities sufficient time to prepare and file an application or applications, especially if the notice is not routed appropriately within an organization, resulting in less than the already limited 30 day period.")

[6] *See e.g.* Comments of APCO at 14 (stating, "APCO strongly opposes redesignation of the band for non-public safety use, whether in whole or in part," and also opposing expanding leasing alternatives in the band to commercial service providers.) *See also* Comments of NPSTC at 24 (stating, "opening the band to commercial carriers would negatively impact public safety entities and CII users that NPSTC has recommended for sharing in the band.") *And see* Comments of Region 21 at 14 ("Region 21 is not in favor of commercial use of the 4.9 GHz band."); and Comments of the San Francisco Bay Area Regional Interoperable Communications Systems Authority (BAYRICS) on the Sixth Further Notice of Proposed Rulemaking in WP Docket No. 07-100 at 2 (filed Jul. 6, 2018) (hereinafter "BayRICS Comments")(stating, "BayRICS opposes re-designating the 4.9 GHZ band, in whole or in part, to support commercial wireless use in the San Francisco Bay Area.")

purposes' or other purposes," and "[i]n fact, one can argue that any use of the channel is for 'public safety purposes' if one remembers that the safety and health of the public is critically dependent on CII providers."[7] Not only is such a requirement unnecessary to protect public safety systems,[8] but "enforcement of such a requirement would be virtually impossible, and could lead to second-guessing as to whether any given traffic carried on 4.9 GHz frequencies has a 'sole or principal purpose' of protecting 'safety of life, health, or property.'"[9]

The fact is that utilities and public safety often work side-by-side during emergency situations and, in some cases, utilities must turn off power or gas before public safety can work near downed power lines or enter a burning building.[10] In that regard, Region 21 stated that CII entities are "operating on the [Michigan Public Safety Communications System]; … [that] the state of Michigan is working with these providers to maintain critical services to the residents of the state come rain or shine;" and that it believes that "access to [the 4.9 GHz band] may facilitate further cooperation and collaboration between CII and public safety."[11] Instead of restricting CII access and erecting barriers to interoperability and investment in the band, the

[7] Comments of Region 21 at 14 (adding that "this is particularly true for electric service providers, commercial or otherwise. No electricity, no commerce (or much else for that matter)."

[8] *Id.* at 14 (explaining that "Once a channel is licensed and granted primary status, coordinators must protect the incumbent. Use of this channel within the licensed parameters has no effect on others whether used for "public safety purposes" or other purposes.").

[9] Comments of Southern Company Services, Inc. in WP Docket No. 07-100 at 6, *citing* 47 U.S.C. §337(f((1)A) (filed Jul. 6, 2018).

[10] *See also* Comments of Southern Company Services, Inc. at 6, *citing Memorandum Opinion and Order and Third Report and Order* in WT Docket No. 00-32, 18 FCC Rcd 9152, 9162 (2003) ("*MO&O*") *citing* to Implementation of Sections 309(j) and 337 of the Communications Act of 1934, as Amended, *Report and Order and Further Notice of Proposed Rule Making* in WT Docket No. 99-87, 15 FCC Rcd 22709 (2000) ("*Implementation of Sections 309(j) and 337*").

[11] Comments of Region 21 at 13-14.

Commission should be providing flexibility to promote partnerships between utilities that will encourage investment and create synergies.

As such, UTC, EEI, NRECA, and GridWise oppose conditioning CII access to the band on a secondary and preemptible basis, because it would unnecessarily discourage collaborative investment by public safety and CII users of the 4.9 GHz band.[12] As Southern Company explained in its comments, the current eligibility and licensing rules present "financial and operational risks for any CII entity contemplating use of this spectrum," because the license for a utility in the 4.9 GHz band can be unilaterally terminated by a government entity that withdraws its sponsorship of the utility with or without cause.[13] As Southern Company stated, "[f]or an electric utility that relies on wireless communications for critical applications in both routine and emergency conditions, those risks were unacceptable."[14] Similarly, the risk associated with secondary status and potential preemption by public safety would raise the same concerns for utilities and CII, because utilities need primary status in order to ensure communications reliability and potential preemption of mission critical communications is unacceptable. UTC, EEI, NRECA, and GridWise also agree with Southern Company that as a legal matter there is no statutory language that could be interpreted to require that CII use be secondary and preemptible by public safety; and that such restrictions would only serve to discourage investment in the band by CII entities.[15]

[12] *But see*, Comments of APCO at 12-13.

[13] Comments of Southern Company Services, Inc. at 3.

[14] *Id*. at 4.

[15] Comments of Southern Company Services, Inc. at 6 (stating that "unlike the 700 MHz Public Safety allocation, the 4.9 GHz band is not subject to statutory definitions on eligibility or permissible use," that could be construed to require restricting CII access to the band to provide public safety services or to serve in support of public safety.)

In conclusion, UTC, EEI, NRECA, and GridWise believe that the NPSTC Band Plan represents a reasonable approach that balances the interests of both public safety and CII use of the band, and reiterate our support for the provisions of the NPSTC Band Plan that would allow CII immediate, co-primary access to Channels 6 and 7 during the first three years, to establish a notice procedure for CII access to the remainder of the band during the three-year period, and to open up the entire band to CII thereafter.[16] Under the NPSTC Band Plan, utilities and CII would enjoy unrestricted access to 10 MHz of spectrum that they could apply for immediately. Meanwhile, the interests of public safety in preserving access to spectrum would be served by allowing a 30-day notice period during which public safety entities could either choose to partner with CII to build shared systems or build their own systems in areas where CII entities applied for licenses to operate. The NPSTC Band Plan would safeguard the interests of CII by allowing them to reapply for the same channel(s) if the public safety entity fails to construct within one year after a license has been granted. Finally, the NPSTC Band Plan would sunset the prior-notice process after three years so that utilities and CII could freely apply for licenses in the band.

UTC, EEI, NRECA, and GridWise note that the Commission invited comment on alternative access arrangements, including immediate access to more spectrum and access to Channels 1-5, which the Commission has proposed to dedicate for public safety aeronautical mobile and robotic use.[17] In that regard, UTC, EEI, NRECA, and GridWise reiterate our support

[16] *See* Comments of UTC, EEI, NRECA and GridWise at 17-19 (underscoring that "The Commission should adopt the NPSTC Band Plan recommendations supporting CII eligibility based upon the existing definition of CII in the Commission's rules, and it should allow utilities to use the band for UAS."). *See also* FNPRM at ¶72.

[17] FNPRM at ¶72 (asking whether it should "consider alternative access arrangements, such as providing CII immediate access to Channels 12 and 13, which could be coupled with access to narrowband Channels 14-18 to create 15 megahertz of contiguous spectrum for CII to access on a co-primary basis," and whether it should "exclude

for CII access to Channels 1-5 for aeronautical operations, and it urges the Commission to refrain from restricting Unmanned Aerial System (UAS) operations on these channels.[18] Utilities and other CII including petroleum companies have increasing communications needs regarding UAS operations, and thus UTC, EEI, NRECA and GridWise support CII access to channels that the Commission decides to designate for aeronautical operations.[19] UTC, EEI, NRECA, and GridWise also recognize that some comments on the record support CII access to 20 MHz of spectrum in the band as well as harmonization of its technical rules with the 3GPP 5G specifications for this band, and we encourage the Commission to consider these comments.[20]

B. The record does not support a two-tier approach to spectrum sharing or commercial use of the band, including leasing the spectrum for commercial purposes.

Conversely, the cost of implementing dynamic spectrum sharing including a multi-tiered licensing framework and prioritization between entities in the band appears unwarranted, and UTC, EEI, NRECA and GridWise reiterate our concern that doing so would unnecessarily delay the effective use of the band.[21] Moreover, comments on the record by public safety and others

Channels 1-5 from CII eligibility in light of our proposal to dedicate this segment to public safety aeronautical mobile and robotic use.")

[18] *See* Comments of UTC, EEI, NRECA and GridWise at 18 (stating that "the Commission should allow utilities to use channels that are designated for UAS operations, which will assist with damage assessments and service restoration in the aftermath of hurricanes and other natural disasters.") *See also* FNPRM at ¶19 (stating that "While we propose to allow manned aeronautical use of Channels 1-5, we believe it would be premature at this time to permit unmanned aerial systems (UAS) to transmit in the 4.9 GHz band.")

[19] *See* Comments of API and Entelec in WP Docket No. 07-100 at 1 (filed June 21, 2018)(supporting the NPSTC Band Plan but calling for more spectrum to be designated for Aerial, Drone and Robotic (i.e. "ADR") use cases.)

[20] *See* Comments of Nokia in WP Docket No. 07-100 at 5-7 (supporting "a 20 MHz allocation to CII as well as many aspects of the NPSTC Proposal for additional CII co-primary licensing over time").

[21] *See* FNPRM at ¶71 ("Given public safety's relatively modest use of 4.9 GHz spectrum to date, we think there is sufficient remaining spectrum in the band to accommodate both expanded use by public safety and CII co-primary use.") *See* Comments of UTC, EEI, NRECA and Gridwise in WP Docket No. 07-100 at 21 ("UTC, EEI, NRECA, and GridWise are concerned that technology solutions for sharing the band may unnecessarily delay access to the

express concerns about the potential for interference to public safety from adopting a dynamic spectrum sharing approach. Instead, these comments support the continued use of traditional methods of frequency coordination by certified public safety coordinators. In this way, UTC, EEI, NRECA, and GridWise believe that expanding eligibility to include CII on a co-primary basis with public safety should be sufficient to make effective use of the band, and that the Commission should not implement more complex approaches that would impose costs, delay deployment and risk interference to public safety operations.

UTC, EEI, NRECA, and GridWise echo the comments of public safety and others that oppose commercial use of the band, including leasing the spectrum to commercial service providers. As Southern Company stated, "[r]eallocating this spectrum from public safety to commercial service would be a radical departure and inconsistent with the public interest in promoting spectrum use for protection of public safety, health and welfare."[22] Similarly, NPSTC stated that "[o]pening the band to commercial carriers would negatively impact public safety entities and CII users that NPSTC has recommended for sharing in the band."[23] Specifically, NPSTC expressed concerns that the band could not be shared with commercial entities as a practical matter and that the Commission would force public safety out of the band.[24] BayRICS also opposed commercial use of the band, and explained that"[g]iven the widespread use of the

band by utilities as well as public safety and in the final analysis would impose unnecessary costs for using the band.")

[22] Comments of Southern Company Services at 15.

[23] NPSTC Comments at 24.

[24] *Id.* at 23-24 (reciting the history of the 2 GHz band in which the Commission "initially exempted public safety licensees from involuntarily relocating their fixed microwave networks out of the band and indicated that public safety licenses would maintain a co-primary status with new emerging technology entrants"; but subsequently, the Commission "changed the provisions for continued public safety use of the 2 GHz band for essential fixed microwave links, in favor of allowing new PCS licensees into the spectrum."

band and the geographic reach of existing licenses across entire counties or public safety service areas, any anticipated commercial use would likely cause interference with grandfathered public safety licenses in the Bay Area."[25] BART also opposed commercial use of the band, stating that the record in this proceeding is inadequate to support a wholesale re-designation of public safety spectrum for commercial use.[26]

Other public safety organizations opposed redesignating the band for commercial services, as well. AASHTO stated that it is "categorically opposed to potential commercialization and to the sharing of this spectrum with non-public safety and non-Critical Infrastructure Industry (CII) entities."[27] Likewise, the Public Safety Communications Council also opposed sharing by commercial users even on a secondary basis, as well as any reallocation of the band for commercial services.[28] Region 21 also opposed any redesignation of the band or leasing of the spectrum for commercial use.[29] Finally, APCO opposed redesignating the band for commercial services or leasing the band, but was willing to explore the potential for sharing the band with non-public safety users on a secondary basis.[30] As such, UTC, EEI, NRECA, and

[25] Comments of BayRICS at 2, 4.

[26] Comments of BART at 13.

[27] Comments of The American Association of State Highway and Transportation Officials (AASHTO) in WP Docket No. 07-100 at 1 (filed July 3, 2018).

[28] Comments of the PSCC at 9-10 (opposing commercial use of the band for a variety of reasons, including potential interference, cost and complexity of spectrum sharing equipment, and the need to preserve the band for public safety purposes.)

[29] Comments of Region 21 at 14.

[30] Comments of APCO International in WP Docket No. 07-100 at 14-15 (filed July 6, 2018).

GridWise echo these comments and reiterate our opposition to commercial use of the band, including leasing the band for commercial services.

It is also important to note the limited interest on the record among commercial service providers in access to the 4.9 GHz band. Out of the 33 initial comments that were filed in response to the FNPRM, none of the comments were filed by any commercial mobile wireless service providers and only one set of comments was filed in support of the use of the band for commercial fixed wireless internet services.[31] Although there was one other set of comments by the Wi-Fi Alliance that tacitly supported the use of the band for unlicensed devices on a noninterference basis, even those comments conceded that the 4.9 GHz band had only limited potential for use for commercial services.[32] By contrast, there was widespread support on the record for continued public safety use of the band, as well as for expanded eligibility to include CII even from among public safety organizations as described above. This is telling. The Commission should heed this message and not commercialize the 4.9 GHz band.

Instead, it should act now to preserve this band for public safety use and promote more effective use of the spectrum by expanding eligibility to include CII, as that term is defined in section 90.7 of the Commission's rules. As UTC, EEI, NRECA, and GridWise stated in our initial comments, "this is an idea whose time has come and is long overdue for implementation."[33] As UTC, EEI, NRECA, and GridWise explained in our initial comments,

[31] *See* Comments of the Wireless Internet Service Providers Association (WISPA) in WP Docket No. 07-100 (filed July 6, 2018)(supporting secondary commercial use of the 4.9 GHz band on a shared basis.)

[32] *See* Comments of the Wi-Fi Alliance in WP Docket No. 07-100 at 1 (filed July 6, 2018)(hereinafter "Comments of the Wi-Fi Alliance")(stating that "[t]he 4.9 GHz band offers much-needed mid-band spectrum, but the next generations of Wi-Fi technology are designed to use wideband channels that cannot be implemented in the limited bandwidth proposed in the FNPRM.")

[33] Comments of UTC, EEI, NRECA and GridWise at 13.

"[u]tilities have enormous pent up demand for access to licensed broadband spectrum in order to meet increased regulatory requirements related to physical and cybersecurity and the continued implementation of grid modernization technologies that are part of the larger Industrial Internet of Things."[34] Moreover, our comments on the record described how utilities would make effective use of the band for a variety of applications, including especially SCADA, but also distribution automation and video surveillance, as well as other applications that are close behind in terms of priority.[35]

UTC, EEI, NRECA, and GridWise reiterate that the Commission need not expand eligibility more broadly nor adopt complex spectrum sharing or leasing approaches that will likely prove counterproductive to the goal of making more effective use of the band while preserving it for public safety. The existing definition of CII under section 90.7 of the Commission's rules can be applied simply and without further delay in making the spectrum available, and access to the band by utilities and other CII on a co-primary basis with public safety will encourage investment and make effective use of the spectrum that would be compatible with and complementary to public safety. Finally, expanding eligibility to include utilities and CII on a co-primary basis enjoys widespread support among public safety. Therefore, UTC, EEI, NRECA, and GridWise urge the Commission to expeditiously adopt rules to expand eligibility to include utilities and other CII on a co-primary basis with public safety in the 4.9 GHz band.

[34] *Id.* at 14.

[35] *Id.* at 16.

Finally, UTC, EEI, NRECA, and GridWise take this opportunity to reiterate that utilities and other CII will continue to need access to the 6 GHz band, even if the Commission provides access to the 4.9 GHz band.[36] In that regard, UTC, EEI, NRECA, and GridWise oppose the comments of the Wi-Fi Alliance that suggest that the Commission should "maintain its focus on making the 6 GHz band (5.925-7.125 GHz) available for Wi-Fi and other unlicensed uses."[37] As comments on the record have demonstrated, the 6 GHz band is home to thousands of fixed microwave links that are used to carry mission critical communications by utilities and public safety, as well as other critical infrastructure industries. The risk of interference to these mission critical communications systems is simply too great, and the interference mitigation approaches that have been proposed on the record do not adequately support expanding the use of the 6 GHz band for unlicensed operations. As such, UTC, EEI, NRECA, and GridWise continue to urge the Commission to refrain from expanding the 6 GHz band for unlicensed operations, notwithstanding the outcome of the Commission's decision in this proceeding to provide utilities and other CII with access to the 4.9 GHz band.[38]

[36] *See* Comments of UTC, EEI, NRECA and GridWise at 3 and 29 (stating that "the Commission should not consider the 4.9 GHz band as a substitute for continued access to the 6 GHz band by utilities.")

[37] Comments of the Wi-Fi Alliance at 2. *See also Id.* at 4-5 (stating that "In case of Wi-Fi technology, the relief necessary to meet current and near-term capacity requirements must come primarily from other mid-band spectrum – in particular, the 5.925-7.125 GHz (the 6 GHz) band identified by the Commission in the Notice of Inquiry it released last year," and urging the Commission "to proceed with the consideration of unlicensed use in the 6 GHz band.")

[38] *See also* Reply Comments by pdvWireless in WP Docket No. 07-100 (filed July 23, 2018)(quoting the comments by UTC, EEI, NRECA and GridWise that access to the 4.9 GHz band will help, but will not meet all of utility additional spectrum requirements, and adding that "[a]ccess to licensed broadband spectrum in various bands – 900 MHz, 4.9 GHz, 3.5 GHz, and others – will provide the complementary suite of spectrum options needed for the modernized, smart, secure electric grid.")

II. The Commission Should Promote the Use of the Band for Fixed Point-to-Point and Point-to-Multipoint Operations on a Primary Basis, and Permit Higher Power and Wider Channels, Particularly in Rural Areas.

A. The record supports licensing fixed operations on a primary basis to ensure reliability.

In the initial comments, UTC, EEI, NRECA, and GridWise supported changes to the technical rules that would promote opportunities for utilities to use the band for fixed operations that would be capable of supporting mission critical communications. First and foremost, UTC, EEI, NRECA, and GridWise advocated for point-to-point (P-P) and point-to-multipoint (P-MP) operations to be licensed on a primary basis in order to promote communications reliability, particularly with remote substations.[39]

The comments on the record support licensing point-to-point and point-to-multipoint systems on a primary basis.[40] The comments generally agree that point-to-point primary narrowband operations on channels 14-18 must be protected, and that point-to-point links may, with judicious coordination, operate free from interference from base and mobile operations of competing public safety organizations.[41] Accordingly, UTC, EEI, NRECA, and GridWise urge the FCC to license point-to-point and point-to-multipoint systems on a primary basis in the 4.9 GHz band.

[39] *See* Comments of UTC, EEI, NRECA and GridWise at 23.

[40] *See e.g.* Comments of APCO at 10; Comments of Region 21 at 13; and Comments of V-Comm in WP Docket No. 07-100 at 2 and 6 (filed July 6, 2018).

[41] *See* Comments of Region 21 at 13.

B. The comments on the record support higher power and wider channels to promote communications reliability.

In the initial comments, UTC, EEI, NRECA, and GridWise advocate for higher power operations to support longer links and wider channels to provide additional capacity. Specifically, UTC, EEI, NRECA, and GridWise supported suggested power levels equivalent to maximum Equivalent Isotropically Radiated Power (EIRP) levels of 65.15 dBm for P-P and 55.15 dBm for P-MP to "promote the use of the band for longer range communications …, particularly in rural areas."[42] In addition, UTC, EEI, NRECA, and GridWise supported the Commission's proposal to permit 40 MHz channel aggregation limits. Finally, UTC, EEI, NRECA, and GridWise also supported the Commission's proposal to lift the restriction on aeronautical operations and to designate channels 1-5 for aeronautical operations.[43]

The comments on the record generally support higher power limits and wider channels for more effective use of the 4.9 GHz band. Many comments not only supported 40 MHz channel aggregation, but some supported allowing 50 MHz channel aggregation. The comments generally believe that allowing maximum channel aggregation would promote maximum flexibility for licenses. UTC, EEI, NRECA and GridWise believe that 40 MHz channel aggregation represents a reasonable balancing of the interest in promoting flexibility while protecting against warehousing of spectrum and other inefficient use of the 4.9 GHz band. UTC, EEI, NRECA and GridWise also believe that the Commission should adopt EIRP limits as

[42] *See* Comments of UTC, EEI, NRECA and GridWise at 24, *citing* Great River Energy Comments at 15; Nebraska Public Power District Comments at 3; and UTC Comments in WP Docket No. 07-100 at 12 (filed Nov. 11, 2012) (proposing maximum ERP of 63 dBm for P-P and 53 dBm for P-MP. EIRP = ERP + 2.15 dB. So, the maximum EIRPs would be 65.15 dBm for P-P and 55.15 dBm for P-MP).

[43] Comments of UTC, EEI, NRECA, and GridWise at 23-25.

proposed by utilities on the record, which will promote more reliability and longer links, particularly in rural areas.

III. The Commission Should Require Incumbents to Register Their Operations in the ULS Database, and Should Improve Coordination and Application Processes to Protect Against Interference and Promote Greater Use of the Band.

In the initial comments, UTC, EEI, NRECA, and GridWise supported the Commission's proposal to clean up the 4.9 GHz band. Specifically, UTC, EEI, NRECA, and GridWise supported requiring incumbents in the band to register their systems with the Commission's Universal Licensing System (ULS) database within one year in order for them to be protected against interference through the frequency coordination process. In addition, UTC, EEI, NRECA, and GridWise supported using the ULS as the database for coordinating 4.9 GHz systems. UTC, EEI, NRECA and GridWise also supported requiring frequency coordination by public safety coordinators to protect against interference going forward but we cautioned that the Commission should consider allowing non-public safety coordinators to conduct frequency coordination in the 4.9 GHz band, if problems arise (e.g. delays, backlogs, or discriminatory treatment of non-public safety applications, including pricing or processing). Finally, UTC, EEI, NRECA, and GridWise supported the Commission's proposals to allow wider channel aggregation in the 4.9 GHz band and to limit the ability of Regional Planning Committees (RPCs) to restrict non-public safety licensing eligibility in the band. In that regard, UTC, EEI, NRECA, and GridWise supported the Commission's proposal to modify the NPSTC Band Plan recommendations to allow RPCs to limit aggregations to 20 megahertz. UTC, EEI, NRECA, and GridWise also deferred on the timetable for RPCs to submit their band plans and to adopt standards for equipment in the band.

The comments on the record support these common-sense recommendations, especially the use of frequency coordination by public safety coordinators through the Universal Licensing System (ULS) database as a way to clean up the 4.9 GHz band. There was universal agreement that licensees should be required to register their existing systems in the ULS database in order to obtain protection through frequency coordination. The only question was timing, and most comments did agree with the Commission's proposal to require incumbents to provide their updated information into ULS within one year. UTC, EEI, NRECA, and GridWise continue to support a one-year deadline for incumbents to submit their updates to the ULS, which should be ample time. On the issue of frequency coordination, there were differences among comments which supported expanding certification by non-public safety coordinators. At this time, UTC, EEI, NRECA, and GridWise continue to support the use of public safety coordinators to coordinate non-public safety systems, such as utilities and other CII. Again, should problems arise, UTC, EEI, NRECA, and GridWise will request that the Commission reexamine the need to allow non-public safety coordinators to coordinate non-public safety facilities.

CONCLUSION

WHEREFORE, the premises considered, UTC, EEI, NRECA, and GridWise reiterate their support for expanding eligibility in the 4.9 GHz band to include utilities and other critical infrastructure industries. In this regard, UTC, EEI, NRECA, and GridWise also reiterate that, while access to this band comes at a critical time for the electric industry and would support energy reliability and security, the Commission should not consider it as a substitute for continued access to the 6 GHz band by utilities. Access to that band on an interference-free basis will continue to be essential for utilities. Finally, we also continue to urge the Commission to revise the technical rules to clean up the 4.9 GHz band and enable the use of wider channels and longer links to help utilities make effective use of the band.

Respectfully,

Utilities Technology Council

ss

Brett Kilbourne
Vice President Policy and General Counsel
Utilities Technology Council
1129 20th Street NW
Suite 350
Washington, DC 20036
202-872-0030

Edison Electric Institute

ss

Aryeh B. Fishman
Associate General Counsel, Regulatory Legal Affairs
Edison Electric Institute
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(202) 508-5000

National Rural Electric Cooperative Association

_ss_____

Brian O'Hara
Senior Director Regulatory Issues – Telecom & Broadband
National Rural Electric Cooperative Association
4301 Wilson Blvd.
Arlington, VA 22203
703-907-5798

GridWise Alliance

_ss_____

Steven G. Hauser
CEO
GridWise Alliance
1800 M Street, NW
Suite 400S
Washington, DC 20036
202-530-9740, ext. 236

August 6, 2018