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November 17, 2020

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street SE
Washington, DC 20554

Ex Parte

Re: Notice of Ex Parte Presentation, ET Docket No. 18-295

Dear Ms. Dortch:

On November 13, 2020, Brett Kilbourne from the Utilities Technology Council (“UTC”), Corry Marshall from the American Public Power Association (“APPA”), Aryeh Fishman from the Edison Electric Institute (“EEI”), and Brian O’Hara from the National Rural Electric Cooperative Association (“NRECA”) (collectively the “Utility Industry Associations”) met with Sean Spivey, Wireless Advisor for Chairman Pai to discuss the above-referenced proceeding. The purpose of the meeting was to urge the Commission not to rush its proposal to further expand unlicensed operations in the 6 GHz band, but instead allow the multi-stakeholder group that it established to complete the work of evaluating interference to incumbent networks from the new unlicensed users that the Commission permitted to operate in the band. This would provide all users of spectrum in this band an opportunity to identify problems and develop suggested practices for preventing harmful interference to incumbent networks that operate critical infrastructure, before a whole new tier of unlicensed operators are introduced into the band.

The Utility Industry Associations expressed concern that in absence of real-world experience with the rules already established in this proceeding, it remains premature to move forward with the proposal in this proceeding. Incumbent licensees continue to have significant concerns that remain unaddressed by the Commission – that opening the 6 GHz band to unlicensed operations will threaten the integrity of mission-critical licensed communications networks already operating in the band. Therefore, at this time, the Commission should not authorize very low power (“VLP”) devices that are not limited to indoor use without the use of automated frequency coordination (“AFC”) to operate in the 6 GHz band. The Utility Industry Associations noted that the record demonstrates concerns that the various factors and technical solutions presented in this proceeding have not yet been shown to adequately mitigate the risk of harmful interference to incumbent licensees and therefore the Commission should not increase the power level for VLP unlicensed devices. Moreover, should the Commission increase the power spectral density for low power indoor (“LPI”) operations, it would significantly exacerbate the problem of harmful interference.

The interference tests that have been conducted by utilities and others already have demonstrated that interference from unlicensed operations will have a widespread and significant impact on utility microwave systems.¹ Contrary to assertions by proponents who downplay or ignore the potential for

¹ See e.g. Electric Power Research Institute “Unlicensed Use in the 6 GHz Band: Field Interference Test Results”, Document No. 3002019712 (Jul. 2020), available at <https://www.epri.com/research/products/000000003002019712?src=mail>. See also

interference from unlicensed operations as limited to local areas and isolated or temporary, these tests have shown that even a single unlicensed device is capable of causing interference from hundreds of meters away resulting in complete loss of communications in some cases. Harmful interference has been shown to occur whether these devices are operated indoors or outdoors, and the potential impact would be magnified by aggregated interference from multiple unlicensed devices.² Proponents concede – actually boast – that hundreds of millions of unlicensed devices, including low power indoor (LPI) devices, will begin to become commercially available later this year.³ Once those devices are commercially deployed, it will be extremely difficult if not practically impossible to get them back. Worse, they will be untraceable and capable of operating anywhere at any time in any place in the country, because these LPI devices are not subject to AFC. Restrictions on output power and limiting operations to indoor use will be ineffective on consumers who either unknowingly or intentionally operate unlicensed devices using higher power or high-gain antennas or operate them outdoors or otherwise out of compliance with those restrictions. This is not abstract or hypothetical. Non-compliant operations are certain to occur, and as a practical matter, they have occurred in countless cases involving unlicensed operations in other frequency bands and the FCC has been challenged to effectively deter such non-compliant operations through enforcement mechanisms.⁴

Given the lack of real-world experience with the impact of unlicensed operations on microwave systems and given the significant and widespread effect of potential interference that has been shown in tests conducted by utilities, the Utility Industry Associations urged the Commission to refrain from authorizing any further unlicensed operations as proposed. At best, it would be premature for the Commission to authorize further unlicensed operations, including VLP and mobile standard power access systems, or to increase the power of currently authorized LPI devices or standard power access systems that are configured on a point-to-point basis. At worst, it would recklessly disregard the threat of interference to mission critical communications that has been shown to result in numerous studies submitted on the record in this proceeding. Studies have shown that these proposed unlicensed operations

Letter from Jennifer L. Oberhausen, Director, Regulatory Affairs, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission in ET Docket No. 18-295 (Nov. 13, 2020), *attaching* “6 GHz Field Test Report,” <https://www.fcc.gov/ecfs/filing/1114220689440>; Letter from Coy Trosclair, Director of Telecom Services, Southern Company Services to Marlene H. Dortch, Secretary, Federal Communications Commission in ET Docket No. 18-295 (Nov. 4, 2020), *attaching* “Lockard & White: Technical Review of RKF Clarifications” and “Lockard & White: Technical Review of RKF Response to CTIA & SCS Filings,” <https://www.fcc.gov/ecfs/filing/1104648430006>. and Letter from Coy Trosclair, Director of Telecom Services, Southern Company Services to Marlene H. Dortch, Secretary, Federal Communications Commission in ET Docket No. 18-295 (Feb. 14, 2020), *attaching* “Lockard & White: FCC 6 GHz NPRM Analysis for Southern Company Services, Jan. 31, 2020” and “Lockard & White Unlicensed 6GHz Impact Study Methodology”), <https://www.fcc.gov/ecfs/filing/10214099374772>.

² *Id.*

³ *Frequency Sharing for Radio Local Area Networks in the 6 GHz Band January 2018* at 45, attached to Letter from Paul Margie, Counsel to Apple Inc., *et al.* to Marlene Dortch, Secretary, FCC (filed Jan. 26, 2018) (“RKF Engineering Study”) (predicting over 958 million unlicensed devices will be commercially deployed, and finding a probability of interference of 0.209%, which would mean that as a practical matter that approximately 200 links would be affected by interference).

⁴ *See* Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, Notice of Proposed Rulemaking, 28 FCC Rcd. 1769, 1775, para. 17 (2013) (stating that “we have seen an increase in interference incidences in U-NII bands that are caused by users unlawfully modifying and operating unlicensed devices that have not been certified to meet the required technical rules for these bands”). *See also* NTIA Technical Report TR-11-473, Case Study: Investigation of Interference into 5 GHz Weather Radars from Unlicensed Information Infrastructure Devices, Part I (Nov. 2010), <http://www.its.bldrdoc.gov/publications/2548.aspx>; NTIA Technical Report TR-11-479, Case Study: Investigation of Interference into 5 GHz Weather Radars from Unlicensed National Information Infrastructure Devices, Part II (July 2011), <https://www.its.bldrdoc.gov/publications/2554.aspx>; and NTIA Technical Report TR-12-486, Case Study: Investigation of Interference into 5 GHz Weather Radars from Unlicensed National Information Infrastructure Devices, Part III (June 2012), <http://www.its.bldrdoc.gov/publications/2677.aspx>.

Ms. Marlene H. Dortch
November 17, 2020
Page 3 of 3

pose a greater risk of interference than those that are currently authorized, due to lower signal attenuation associated with outdoor operations, and greater probability of interference associated with mobile and higher power operations.⁵ Further testing is necessary under real-world conditions using actual unlicensed devices, and these tests must prove that these unlicensed operations will not cause harmful interference to licensed operations in the 6 GHz band. In addition, the 6 GHz multi-stakeholder group must have sufficient opportunity to develop processes and technical solutions to mitigate against interference and immediately resolve instances of interference that may occur. Accordingly, the Commission should refrain from authorizing any further unlicensed operations in the 6 GHz band at this time.

Thank you for your help in this matter. If there are any questions concerning this matter, please contact the undersigned.

Respectfully,



Brett Kilbourne

Cc: FCC participants

⁵ See e.g. Letter from Jennifer L. Oberhausen, Director, Regulatory Affairs, CTIA to Marlene H. Dortch, Secretary, Federal Communications Commission in ET Docket No. 18-295 (Nov. 13, 2020), *attaching* “6 GHz Field Test Report,” <https://www.fcc.gov/ecfs/filing/1114220689440>