



December 17, 2021

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
45 L Street, N.E.  
Washington, D.C. 20554

Re: Notice of Ex Parte Presentation, Unlicensed Use of the 6 GHz Band, ET Docket No. 18-295; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz, GN Docket No. 17-183.

Dear Ms. Dortch:

On December 15, 2021, Brett Kilbourne, Eric Wagner and Campbell Baskin from the Utilities Technology Council (“UTC”); Aryeh Fishman from the Edison Electric Institute (“EEI”); Jeff Cohen and Alison Venable from APCO International; Ryan Woodard from the International Association of Fire Chiefs; and Ralph Haller from the National Public Safety Telecommunications Council (collectively “Petitioners”) as well as Bryant Peters, Michael Rosenthal and Randall Watkins from Southern Company, and Tom Dombrowsky from DLA Piper on behalf of Southern Company, David Hattey from Lockard & White on behalf of Southern Company and David Rines outside counsel to Southern Company met with Greg Watson, Policy Advisor in the Office of Commissioner Brendan Carr of the Federal Communications Commission (“Commission” or “FCC”) to discuss matters related to the above-referenced proceedings. The purpose of the meeting was to discuss the Petition for Rulemaking and the Request for Stay which Petitioners recently filed with the Commission, requesting new rules for 6 GHz low-power indoor (“LPI”) devices and an immediate temporary stay on any equipment certification of these devices, including the marketing, sale and importation of 6 GHz LPI devices that have already been certified by the Commission as well as any such devices authorized going forward.<sup>1</sup>

During the meeting, representatives from the Petitioners requested that the Commission

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<sup>1</sup> Petition for Rulemaking of the Utilities Technology Council, the Edison Electric Institute, the American Public Power Association, the National Rural Electric Cooperative Association, the American Gas Association, the American Water Works Association, the American Petroleum Institute, the Nuclear Energy Institute, the Association of American Railroads, the Association of Public-Safety Communications Officials-International, the International Association of Fire Chiefs, and the National Public Safety Telecommunications Council in ET Docket No. 18-295 (filed Dec. 7, 2021). *See also* Request for Stay of the Utilities Technology Council, the Edison Electric Institute, the American Public Power Association, the Rural Electric Cooperative Association, the American Gas Association, the American Water Works Association, the American Petroleum Institute, the Nuclear Energy Institute, the Association of American Railroads, the Association of Public-Safety Communications Officials-International, the International Association of Fire Chiefs, and the National Public Safety Telecommunications Council in ET Docket No. 18-295 (filed Dec. 7, 2021).

immediately grant the Request for Stay and expeditiously adopt a rulemaking to develop new rules for 6 GHz LPI devices, establish a cost recovery mechanism to reimburse the costs incurred by licensed microwave incumbents to mitigate and resolve interference from unlicensed operations in the band, and conduct independent testing to consider the extent to which new rules for standard power access devices should be developed. Petitioners emphasized that they appreciate the need to make additional spectrum available for unlicensed use and support the opening of the 6 GHz band to unlicensed operations, provided it is done in a way that sufficiently protects the integrity and reliability of incumbent licensed 6 GHz systems, including those which are essential to public safety and to the operations of our Nation's critical infrastructure. Accordingly, as they discussed, new rules for 6 GHz LPI devices are necessary because the basis for the Commission's rules for 6 GHz LPI devices in the *Report and Order* is fundamentally flawed. As they also discussed, an immediate temporary stay of all 6 GHz LPI equipment certification is also necessary to prevent these devices from causing harmful interference to licensed microwave systems in the band.

A rulemaking to develop new rules for 6 GHz LPI devices is necessary based on field-testing which discovered that 6 GHz LPI devices transmit beacon signals nearly constantly, causing interference to licensed microwave systems 4.5 kilometers away.<sup>2</sup> Beacon signals were never disclosed to the Commission, let alone considered by it, when it concluded in the *Report and Order* that 6 GHz LPI devices do not pose a significant potential for interference to licensed microwave systems in the band.<sup>3</sup> Moreover, their near constant transmissions also contradict proponents' repeated assertions that the activity cycles of 6 GHz LPI devices are low, which was a significant factor in the Commission's conclusion.<sup>4</sup> Yet, the testing proves that 6 GHz LPI devices will endanger the functioning of services to public safety and critical infrastructure industries and seriously degrade, obstruct, or repeatedly interrupt their radio communications services.<sup>5</sup> The Commission must not authorize unlicensed operations that will cause harmful interference to licensed systems, and the real-world testing has proven that 6 GHz LPI devices will in fact cause harmful interference to licensed microwave systems.<sup>6</sup> Accordingly, it is necessary for the Commission to develop new rules that will prevent 6 GHz LPI devices from causing harmful interference to licensed microwave systems.

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<sup>2</sup> The report documenting the results of these interference tests was previously provided to the staff of the FCC's Office of Engineering and Technology. See Letter from Larry Butts, Manager, Telecom Engineering, Southern Company Services, Inc. to Marlene H. Dortch, Secretary, Federal Communications Commission in ET Docket No. 18-295 and GN Docket No. 17-183 (filed June 23, 2021); and see Attachment A: Test Report on the Effects of 6 GHz Unlicensed RLAN Units on Fortson to Columbus Microwave Link June 21, 2021, available at <https://www.fcc.gov/ecfs/filing/106231367519302> ("6 GHz Interference Report").

<sup>3</sup> *Report and Order* at ¶110.

<sup>4</sup> *Id.* at ¶141.

<sup>5</sup> See 47 C.F.R. §15.3 (defining harmful interference as "[a]ny emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with this chapter.")

<sup>6</sup> 47 U.S.C. §§301 and 302.

Petitioners were unable to provide this information to the Commission at an earlier time because 6 GHz LPI devices were not commercially available and equipment manufacturers refused to provide prototype devices, let alone cooperate in interference testing. Despite good faith efforts, Petitioners were unable to work within the multi-stakeholder group to address interference testing, because representatives from equipment manufacturers blocked any such discussions, claiming it was out of scope despite the fact that the Commission expressly encouraged the multi-stakeholder group “to address any issues it deems appropriate regarding interference detection and mitigation” and “to work cooperatively to develop and test devices” before unlicensed 6 GHz devices reach consumers.<sup>7</sup> The refusal of equipment manufacturers to cooperate with interference testing coupled with their failure to disclose beacon signals and their misrepresentation that these devices transmit with low duty cycles underscores the need for the Commission to adopt a new rulemaking to develop rules for 6 GHz LPI devices that are proven to prevent harmful interference to licensed microwave systems based on independent testing through an open and transparent process.

Adopting new rules for 6 GHz LPI devices and granting a stay of certification of all 6 GHz LPI devices is procedurally appropriate and in the public interest. Section 2.939 specifically provides for revocation of equipment certification based on false statements and conditions coming to the attention of the Commission which would warrant it in refusing to grant an original application.<sup>8</sup> The failure of proponents to disclose beacon signals and to misrepresent their duty cycles in studies filed on the record clearly misled the Commission, and the real-world tests showing harmful interference from 6 GHz LPI devices certainly provide sufficient new information coming to the attention of the Commission to support granting the stay of all equipment certification of 6 GHz LPI devices. Moreover, the petition for rulemaking should be considered and granted because it relies on new information that was only recently discovered despite best efforts to do so earlier, and the public interest clearly would be served by developing new rules that protect public safety and critical infrastructure mission critical communications from interference from these devices. This would also be consistent with Commission precedent, which delayed the certification and commercial deployment of certain unlicensed devices until testing was conducted to prove interference protection.<sup>9</sup> Finally, there is no conflict with the pending petition for reconsideration or the current appeal of the Commission’s *Report and Order*, which address other issues and do not consider the new interference studies of 6 GHz LPI devices nor the issue of cost reimbursement for incumbent licensees.

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<sup>7</sup> *Report and Order*, ¶¶176-177.

<sup>8</sup> *See* 47 C.F.R. §2.939(a)(1) and (4).

<sup>9</sup> *See* Letter from Chairman Tom Wheeler to Senators Schatz, Blumenthal, Udall, Markey, Cantwell, and McCaskill Regarding LTE-U Technologies (March 1, 2016) (found at: <https://www.fcc.gov/document/chairman-response-regarding-lte-u-technologies>). *See also* M. Macagnone, *FCC’s Wheeler Pushes Industry to Set LTE-U Standards*, LAW360, Sept. 9, 2015 (found at: <https://www.law360.com/articles/700762>). *See also* Chairman Pai Statement on Commission Authorization of First LTE-U Devices, Feb. 22, 2017 (found at: <https://www.fcc.gov/document/chairman-pai-statement-fcc-authorization-first-lte-u-devices>).

Incumbent licensees have already incurred costs associated with interference monitoring and mitigation; and based on their experience in the multi-stakeholder group with proponents of unlicensed operations, incumbents also expect to incur significant costs both in terms of time and expense with resolving interference complaints. Cost reimbursement is consistent with the Commission's *Emerging Technologies* framework, as well as other precedent.<sup>10</sup> Given that 6 GHz LPI devices are already becoming commercially available and there are expected to be hundreds of millions more devices sold in the future, this is currently an inflection point in the market that will have significant implications for the extent of interference and the costs incumbents will incur, which underscores the need for the Commission to grant the Petition for Rulemaking and the Request for Stay.

Finally, Petitioners discussed the need for the Commission to conduct tests of standard power access devices to determine the extent to which new rules need to be developed to ensure these devices will not cause interference to licensed microwave systems. Given that testing of 6 GHz LPI devices revealed flaws in its modeling, Petitioners believe the Commission should conduct testing of standard power access devices to determine the actual interference potential to licensed microwave systems in a real-world environment. Petitioners also reminded the Commission that it must protect licensed systems against interference from standard power access devices, as well as 6 GHz LPI devices.

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

Sincerely,

UTILITIES TECHNOLOGY COUNCIL

s/ Brett Kilbourne

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cc: FCC participants

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<sup>10</sup> See *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, FCC 92-437, ET Docket No. 92-9, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd. 6886 (1992), clarified by Third Report and Order, FCC 93-351, 8 FCC Rcd. 6589 (1993), modified on reconsideration, Memorandum Report and Order, 9 FCC Rcd. 1843 (1994). See also, Amendment of the Commission's Rules to Establish New Personal Communications Services, GN Docket No. 90-314, 8 FCC Rcd. 7700 (1993).