

January 7, 2021

VIA ECFS

Chairman Ajit Pai
Commissioner Jessica Rosenworcel
Commissioner Brendan Carr
Commissioner Geoffrey Starks
Commissioner Nathan Simington
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: 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: Notice of *Ex Parte* Presentation

Dear Chairman Pai and Commissioners:

As you are no doubt aware, in the recently enacted Consolidated Appropriations Act of 2021,¹ Congress expressed concern over the potential impact of unlicensed use of the 6 GHz band on critical infrastructure communications systems and directed the Commission to report on its progress in ensuring rigorous testing in the 6 GHz band.² Specifically, the Joint Explanatory Report associated with the appropriations for the Federal Communications Commission states as follows:

6 Gigahertz. – As the FCC has authorized unlicensed use of the 6 gigahertz band, the agreement expects the Commission to ensure its plan does not result in harmful interference to incumbent users or impact critical infrastructure communications systems. The agreement is particularly concerned about the potential effects on the reliability of the electric transmission and distribution system. The agreement expects the FCC to ensure any mitigation technologies are rigorously tested and found to be effective in order to protect the electric transmission system. **The FCC is directed to provide a report to the Committees within 90 days of enactment of this Act on its progress in ensuring rigorous testing related to unlicensed use of the 6 gigahertz band.**³

¹ Consolidated Appropriations Act, 2021 (available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116HR133SA-RCP-116-68.pdf>).

² Joint Explanatory Statement – Division E, at p. 32 (available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-E.pdf>)

³ *Id.* (emphasis added). The Consolidated Appropriations Act was signed into law on December 27, 2020, and thus the Commission is required to provide this report by March 27, 2021.

Congress' concerns regarding testing are especially significant given the results of initial field tests conducted by Southern Company ("Southern") and CTIA in the fall of 2020, which showed that transmissions by both low power indoor ("LPI") devices and outdoor very low power ("VLP") devices caused harmful interference to an actual 6 GHz Fixed Service link.⁴ Indeed, this field test of actual operations in real-world conditions demonstrated that a *single* LPI device transmitting at the power levels authorized by the Commission in April 2020 (without any actual testing) would cause harmful interference to a licensed microwave link from as far as 9 kilometers away.⁵ Similarly, a *single* VLP device transmitting at the Commission's proposed power levels was found to cause harmful interference to a licensed microwave link from more than 2 kilometers away.⁶

Southern has described in the record the significant impact that such interference to its licensed 6 GHz microwave links would have on its electric utility operations, as well as the potential consequences of any disruptions in utilities' ability to monitor and control the electric grid. Accordingly, consistent with the clear direction of Congress as expressed in the Consolidated Appropriations Act of 2021, Southern urges the Commission to refrain from adopting any measures that would expand unlicensed use of the 6 GHz band until after rigorous testing of such unlicensed use has been performed.

Furthermore, Southern urges the Commission to utilize its authority under Section 2.945 of its rules to seek a sample (or samples) from any LPI device equipment manufacturer that desires equipment certification.⁷ Requiring a testing sample would be consistent with the precedent established by the Commission when responding to Congressional inquiries in 2016 regarding the impact of LTE-Unlicensed ("LTE-U") technology on unlicensed Wi-Fi operations.⁸ In that case, Chairman Wheeler informed Congress that:

"[] LTE-U devices will require equipment authorization by the FCC Laboratory before they can be marketed in the United States and applicants for certification will be required to submit sample devices for testing."⁹

Once the Commission receives these sample devices, they could be used as part of the rigorous testing required by Congress to determine if they will in fact coexist with incumbent 6 GHz operations without causing harmful interference. Indeed, as some parties

⁴ Letter from Jennifer L. Oberhausen, CTIA, to Marlene H. Dortch, Secretary, Federal Communications Commission, ET Docket No. 18-295, GN Docket No. 17-183 (filed Nov. 13, 2020).

⁵ *Id.* at 3.

⁶ *Id.* at 12, Table 4.

⁷ See 47 C.F.R. §2.945 (a) ("Prior to certification. (1) The Commission or a Telecommunication Certification Body (TCB) may require an applicant for certification to submit one or more sample units for measurement at the Commission's laboratory or the TCB.").

⁸ Prior to receiving equipment certification, the Commission required LTE-U device manufacturers to provide sample devices for testing. See Letter from Chairman Tom Wheeler to Senators Schatz, Blumenthal, Udall, Markey, Cantwell, and McCaskill Regarding LTE-U Technologies (March 1, 2016) (available at <https://www.fcc.gov/document/chairman-response-regarding-lte-u-technologies>).

⁹ *Id.*

have already received certification for unlicensed 6 GHz devices,¹⁰ these manufacturers could be the initial parties to provide samples to the Commission for the testing requested by Congress.

In accordance with Section 1.1206 of the Commission's rules, this letter is being filed electronically in the above-referenced proceeding.

Respectfully submitted,

/s/ Coy Trosclair

Coy Trosclair
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cc: Sean Spivey
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¹⁰ See e.g., Chairman Pai Statement on FCC Authorization of First 6 GHz Wi-Fi Device, rel. Dec. 7, 2020 (available at <https://docs.fcc.gov/public/attachments/DOC-368593A1.pdf>); See also equipment certification grants to ASUS (available at https://apps.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb_code=&application_id=UtPjXidj8IzcKdzhbUdrbg%3D%3D&fcc_id=MSQ-RTAXJF00) and Samsung (available at https://apps.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb_code=&application_id=bZmSjLR2X9KJ6ZT7vgf%2FgA%3D%3D&fcc_id=A3LSMG998U).