January 27, 2023

EX PARTE VIA ELECTRONIC FILING

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

Re: The Commission Begins the Process for Authorizing 6 GHz Band Automated Frequency Coordination Systems, ET Docket No. 21-352; Unlicensed Use of the 6 GHz Band, ET Docket No. 18-295

Dear Ms. Dortch:

By this letter, APCO International, AT&T Services, Inc., Comsearch, the Edison Electric Institute, the Enterprise Wireless Alliance, the Fixed Wireless Communications Coalition, the Utilities Technology Council, and Verizon (collectively, the "Joint Filers"), pursuant to Section 1.41 of the Commission's rules,[1] seek a clarification of the recent Office of Engineering and Technology ("OET") *Public Notice* conditionally approving Automated Frequency Coordination ("AFC") System proposals (the "AFC Proposals") for the 6 GHz band.[2] In particular, the Joint Filers seek clarification that the *Public Notice* does not override industry consensus standards, including propagation model parameters specified by the Wireless Innovation Forum ("WInnForum") in its standards document known as WINNF-TS-1014.[3]

[1] 47 C.F.R. § 1.41.

[2] OET Announces Conditional Approval For 6 GHz Band Automated Frequency Coordination Systems, ET Docket No. 21-352 (OET rel. Nov. 2, 2022) ("*Public Notice*").

[3] WInnForum, "Functional Requirements for the U.S. 6 GHz Band under the Control of an AFC System," WINNF-TS-1014 (Oct. 31, 2022) ("WINNF-TS-1014") (attachment to WInnForum *Ex Parte* Letter, ET Docket No. 18-295, ET Docket No. 21-352 (dated Oct. 31, 2022) ("WInnForum *Ex Parte*")). *See generally* "About the Wireless Innovation Forum"; *available at:* https://www.wirelessinnovation.org/about_the_forum (last visited Jan. 4, 2023) (describing WInnForum's membership and purpose). Although WInnForum's document adoption procedures allow a forum chair to specify the adoption of a document by quorum vote, WINNF-TS-1014 was adopted through WInnForum's consensus ballot process. This also follows development of a consensus draft at the work group level. *See* WInnForum, "Document Approval Process," Policy 001 Version 3.3.0 at 6, 7-8 (dated Oct. 14, 2021); *available at:* https://www.wirelessinnovation.org/assets/WInnForum%20Document%20Process%20V3.3.0%20-%20Final.pdf (last visited Jan. 4, 2023).

In late 2021 and early 2022, entities that filed AFC Proposals committed to the Commission that their AFC systems would comply with industry standards,[4] such as propagation model parameters, that had been under development by WInnForum since the issuance of the *6 GHz Report & Order*.[5] On October 31, 2022, consistent with the Commission's expectations,[6] WInnForum filed in this proceeding WINNF-TS-1014.[7] That document contains dozens of specifications regarding the operation of AFC systems, all of which were achieved via broad inter-industry consensus through lengthy, painstaking, holistic, expert, and detailed deliberations. Among those specifications, as key and inextricably intertwined components of the overarching agreement, are the following propagation model parameters: a 95% threshold for "confidence" and an 80% threshold for "reliability" for calculations using the Irregular Terrain Model ("ITM") and an approximately 84% confidence threshold for calculations using the WINNER II model.[8] Two days later, on November 2, 2022, the *Public Notice* was released. The *Public Notice* stated incorrectly—although understandably, given how recently WINNF-TS-1014 had been filed — that "[i]n the case of these propagation model parameters, it appears that, to date, the industry has not yet reached a consensus."[9]

Because WINNF-TS-1014 memorializes the industry consensus achieved regarding confidence and reliability parameters for the propagation models in AFC system calculations, the Joint Filers seek OET's clarification that the *Public Notice* should not be interpreted to override WINNF-TS-1014. In other words, the Joint Filers urge OET to specifically clarify that the *Public Notice* should not be interpreted as superseding any specific values in WINNF-TS-1014—a document regarding which, at the Commission's urging, incumbent and unlicensed device interests, among others, worked diligently over a substantial period of time to develop procedures and practices that all stakeholders believed were acceptable *taken as a whole*.[10]

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[4] *See, e.g.*, *Public Notice* at 3 (¶ 5 n.18) ("Each conditionally approved AFC system operator states that it relies on current or future Wi-Fi Alliance and WinnForum specifications as part of their proposals").

[5] *Unlicensed Use of the 6 GHz Band, Report and Order and Further Notice of Proposed Rulemaking*, 35 FCC Rcd 3852 (2020) (The term "*6 GHz Report & Order*" refers to pp. 3852-3928). Entities engaged in preparing WINNF-TS-1014 were wide-ranging and included stakeholders from all sides of the debates ongoing in the 6 GHz proceeding. In fact, WINNF-TS-1014 itself explicitly thanks representatives from Aruba, AT&T, Cisco, CommScope, Ericsson, Federated Wireless, Google, NCTA, Nokia, Qualcomm, RED Technologies, RKF Engineering, Sony, and WISPA for their contributions.

[6] *See, e.g.*, *6 GHz Report & Order*, 35 FCC Rcd at 3919 (¶ 178) (encouraging multi-stakeholder group ("MSG") to address "AFC system development for standard power access points," including "how to implement the required propagation models"). The MSG delegated certain tasks to existing industry organizations, such as WInnForum.

[7] *See* WInnForum *Ex Parte*.

[8] WINNF-TS-1014 at 44 & 45, Table 6. The WINNER II confidence factor is described in requirement R2-AIP-34, which states that the standard deviation (σ_{CPL}) is to be subtracted from the median pathloss. In general, different confidence levels can be computed by subtracting some factor times the standard deviation from the median value. Assuming that the dB loss values follow a normal distribution, a factor of 1.0 standard deviation is approximately an 84% confidence level.

[9] *Public Notice* at 17 (¶ 38).

[10] In addition to the reasons explained above, as OET states, "there is value in having the AFC systems make uniform assumptions when . . . implementing the propagation models." *Id*.

Should any questions arise concerning this *ex parte*, please do not hesitate to contact any of the undersigned.

Respectfully submitted,

APCO INTERNATIONAL

By: /s/
Jeffrey Cohen
Chief Counsel and Director of
Government Relations

AT&T SERVICES, INC.

By: /s/
Michael P. Goggin
Ass't Vice President

COMSEARCH

By: /s/
Mark Gibson
Sr. Director, Business
Development & Spectrum Policy

EDISON ELECTRIC INSTITUTE

By: /s/
Aryeh Fishman
Associate General Counsel

ENTERPRISE WIRELESS ALLIANCE

By: /s/
Robin Cohen
President &
Chief Executive Officer

FIXED WIRELESS
COMMUNICATIONS COALITION

By: /s/
Seth Williams, Counsel
Fletcher, Heald & Hildreth

UTILITIES TECHNOLGY COUNCIL

By: /s/
Brett Kilbourne
Senior Vice President Policy and
General Counsel

VERIZON

By: /s/
Patrick Welsh
Vice President of Federal
Regulatory and Legal Affairs