

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Unlicensed Use of the 6 GHz Band	)	ET Docket No. 18-295
	)	
Expanding Flexible Use in Mid-Band Spectrum	)	GN Docket No. 17-183
Between 3.7 and 24 GHz	)	

**REPLY COMMENTS OF APCO INTERNATIONAL**

The Association of Public-Safety Communications Officials, International (APCO),<sup>1</sup> submits these reply comments on the Second Further Notice of Proposed Rulemaking in the above-captioned proceedings.<sup>2</sup> APCO is concerned by the introduction of Very Low Power (VLP) devices' operations within the 6 GHz band. We urge the Commission to delay any further expansion of rules permitting the unlicensed use of the 6 GHz band and address requests from the public safety community and others to ensure the sharing framework is effective at preventing and promptly remedying interference to incumbent operations from the unlicensed devices that have already been authorized.<sup>3</sup>

The Commission proposes to allow VLP devices to operate at higher power levels when under the control of a geofencing system that prevents them from operating in close proximity to

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<sup>1</sup> Founded in 1935, APCO is the nation's oldest and largest organization of public safety communications professionals. APCO is a non-profit association with over 40,000 members, primarily consisting of state and local government employees who manage and operate public safety communications systems – including 9-1-1 Emergency Communications Centers (ECCs), emergency operations centers, radio networks, and information technology – for law enforcement, fire, emergency medical, and other public safety agencies.

<sup>2</sup> Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz, ET Docket No. 18-295, GN Docket No. 17-183, *Second Report and Order, Second Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order on Remand*, FCC 23-86 (rel. Nov. 1, 2023) (“FNPRM”).

<sup>3</sup> See Petition for Rulemaking of APCO International, et al., ET Docket No. 18-295, GN Docket No. 17-183 (filed Dec. 7, 2021); Request for Stay of APCO International, et al., ET Docket No. 18-295, GN Docket No. 17-183 (filed Dec. 7, 2021). See also, Letter from Jeffrey S. Cohen et al., APCO International, to Marlene H. Dortch, Secretary, FCC, ET Docket 21-352 (filed Apr. 4, 2024) (identifying unresolved issues for how AFC operators will receive and act on reports of harmful interference).

co-channel licensed incumbent services, and seeks comment on whether to allow VLP devices to operate in additional portions of the 6 GHz band.<sup>4</sup> The Commission also proposes two exceptions to the prohibition on client-to-client device communications,<sup>5</sup> which was intended to reduce the potential for interference to incumbents.<sup>6</sup> APCO shares many of the concerns expressed by other representatives of incumbent operators for these proposals.

The Commission's rules for VLP devices have only recently been implemented, and the actual impact of these devices on incumbent systems, including those utilized for public safety communications, remains to be fully understood. Indeed, as AT&T notes, the foundation of the technical determination to permit VLP devices in the 6 GHz band remains unfiled and untested.<sup>7</sup> Real-world operational experience and testing should guide any future decision-making rather than risk essential public safety communications networks with theoretical models and lab testing alone.

We have several reasons for concern that have been repeatedly documented by APCO and other incumbents in the record, with no meaningful response by the Commission or the RLAN proponents. 6 GHz microwave systems are the backbone of public safety infrastructure, providing essential links for 9-1-1 and first responders' life-safety communications. Incumbent public safety microwave systems were not designed to detect harmful interference, and it's unclear whether these systems can be upgraded to detect interference, let alone the cost of doing so. It is thus likely that harmful interference is already occurring to public safety links from low

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<sup>4</sup> FNPRM at para. 104 et seq.

<sup>5</sup> *Id.* at paras. 150-52.

<sup>6</sup> *See Id.* at para. 150 (“In the 6 GHz Order, the Commission prohibited unlicensed client devices from operating as ‘mobile hotspots’ because ‘[p]ermitting a client device operating under the control of an access point to authorize the operation of additional client devices could potentially increase the distance between these additional client devices and the access point and increase the potential for harmful interference to fixed service receivers or electronic news gathering operations.’ To avoid this situation, the Commission’s rules prohibit 6 GHz unlicensed client devices from directly communicating with one another.”).

<sup>7</sup> Comments of AT&T Services, Inc., ET Docket 18-295, GN Docket No. 17-183 at 5.

power indoor devices, but licensees have not yet attributed it to unlicensed operations.<sup>8</sup> As these devices proliferate, and with the Commission's push to facilitate additional unlicensed operations in this band, public safety links will experience increased outage time and degraded communications.

If the Commission opts to further expand unlicensed use of the band despite public safety incumbents' concerns, at a minimum, changes to the rules should be undertaken to attempt to minimize harmful effects on public safety communications. The harms resulting from interference in this heavily encumbered band and the deployment of unlicensed devices is potentially irreversible. The Commission should, wherever possible, require unlicensed devices and systems to be capable of modification through over-the-air firmware updates.

As it stands now, the threat of harmful interference from unlicensed devices seems to be obscured by the belief that most instances of harmful interference will erode a microwave link's fade margin rather than cause an immediate outage. The Commission and unlicensed proponents would be wrong to dismiss this impact as inconsequential. Fade margin is not merely a technical parameter; it is a necessity for public safety resilience and an investment that public safety agencies deemed critical to make. Allowing unlicensed devices to operate in the 6 GHz band without robust protection of microwave links' fade margins will lead to interference that diminishes their effectiveness, potentially endangering lives during critical moments when reliable communication is most needed. We urge the Commission to adopt a conservative approach that prioritizes the protection of public safety microwave systems' fade margins and

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<sup>8</sup> APCO has also repeatedly, and reasonably, advocated that the Commission ensure that live, real-world testing be conducted to satisfy the growing concerns among public safety licensees if in fact the risk of interference is as minimal as the Commission expects.

ensures that these systems remain robust, resilient, and capable of delivering uninterrupted service under all conditions.

Respectfully submitted,  
APCO INTERNATIONAL

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April 26, 2024