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**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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| 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 |) | |

**OPPOSITION TO PETITIONS FOR RECONSIDERATION
DYNAMIC SPECTRUM ALLIANCE**

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TABLE OF CONTENTS

| | | |
|------|---|----|
| I. | INTRODUCTION AND SUMMARY..... | 1 |
| II. | THE COMMISSION PREVIOUSLY REJECTED REQUESTS WITHIN THE 6 GHZ PROCEEDING TO CLEAR AND LICENSE A PORTION OF THE 6 GHz BAND | 3 |
| III. | THE FCC SHOULD REJECT PETITIONS TO INCREASE THE EIRP LIMITS OF STANDARD POWER ACCESS POINTS OPERATING UNDER AFC CONTROL..... | 7 |
| IV. | THE COMMISSION SHOULD REJECT FIXED WIRELESS COMMUNICATIONS COALITION PETITION FOR RECONSIDERATION AS IT MERELY RECYCLES ARGUMENTS THE COMMISSION PREVIOUSLY REJECTED..... | 11 |
| V. | THE COMMISSION’S 6 GHz RULES PROTECT PUBLIC SAFETY LICENSEES FROM HARMFUL INTERFERNCE APCO’S ARGUMENTS ABOUT LPI DEVICES HAVE BEEN CONSIDERED AND REJECTED BY THE COMMISSION..... | 15 |
| VI. | CONCLUSIONS..... | 21 |

I. INTRODUCTION AND SUMMARY

The Commission received timely petitions from CTIA¹, Verizon², the Fixed Wireless Communications Coalition (“FWCC”)³ and APCO International (“APCO”)⁴ seeking reconsideration of the Commission’s “6 GHz Report & Order”.⁵ Not one of the four Petitions for Reconsideration present arguments that would warrant the Commission to consider revising its decisions based on the extensive record developed over the course of the proceeding. The Commission should reject all four Petitions.

Many of the arguments included in the Petitions have been previously raised and explicitly rejected by the Commission in the 6 GHz R&O. These previously rejected arguments include CTIA’s request the Commission reconsider its decision not to clear and license a portion of the 6 GHz band;⁶ FWCC’s request the Commission mandate testing prior to the release of unlicensed devices in the 6 GHz band⁷ and to codify an average weighted activity factor of

¹ See Petition for Reconsideration of CTIA, ET Docket No. 18-295, GN Docket No. 17-183 (filed June 25, 2020) (“CTIA Petition”).

² See Petition for Reconsideration of Verizon, ET Docket No. 18-295, GN Docket No. 17-183 (filed June 25, 2020) (“Verizon Petition”).

³ See Petition for Reconsideration of Fixed Wireless Communications Coalition, ET Docket No. 18-295, GN Docket No. 17-183 (filed June 25, 2020) (“FWCC Petition”).

⁴ See Petition for Reconsideration of APCO International, ET Docket No. 18-295, GN Docket No. 17-183 (filed June 25, 2020) (“APCO Petition”).

⁵ *Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd. 3852 (2020) (“6 GHz R&O”) and (“6 GHz Further Notice”).

⁶ See CTIA Petition at 3-6.

⁷ See FWCC Petition at 8.

0.4 percent for unlicensed low power indoor (“LPI”) devices;⁸ and APCO’s broadside to have the Commission to vacate its rules because the 6 GHz R&O fails to implement a long list of measures it maintains are necessary for preventing interference to public safety communications. APCO has previously raised most of the items on its “at a minimum” list during the 6 GHz proceeding. Under the rules, petitions that rely on arguments that have been fully considered and rejected by the Commission within the same proceeding may be dismissed or denied.⁹

Additionally, the Commission should reject the requests from CTIA and Verizon to permit an automated frequency coordination (“AFC”)-controlled standard power access point to operate at a power level higher than 36 dBm. When these two separate requests for reconsideration are unpacked, they include elements that the Commission previously rejected (increasing the power of standard power devices under AFC control for point-to-multipoint operations), elements the Commission did not seek information on (the 6 GHz NPRM only sought information regarding the potential of increasing the standard power access point’s EIRP limit in rural and underserved areas¹⁰) and elements currently under consideration in the 6 GHz Further Notice (higher power for standard power access points for point-to-point operations in rural and underserved areas).

Several of APCO requests “plainly do not warrant consideration by the Commission” and should be dismissed or denied. APCO also appears confused, whether tactically or

⁸ See Letter from Donald J. Evans and Seth Williams, Counsel to Fixed Wireless Communications Coalition, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295, GN Docket No. 17-183, at 2-3 (filed Apr. 13, 2020).

⁹ 47 C.F.R. § 1.429(l)(1).

¹⁰ *Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Proposed Rulemaking, 33 FCC Rcd. 10496, (2018) (“6 GHz NPRM”).

unintentionally, on what the Commission envisions for the multi-stakeholder group (“MSG”). APCO’s request regarding the process for registering links operating under an emergency Special Temporary Authority (“STAs”) in Universal Licensing System (“ULS”) can simply become part of the MSG’s workstream and does not require a change to the Commission’s rules.

II. THE COMMISSION PREVIOUSLY REJECTED REQUESTS WITHIN THE 6 GHz PROCEEDING TO CLEAR AND LICENSE A PORTION OF THE 6 GHz BAND

CTIA submitted a petition for partial reconsideration of the Commission’s 6 GHz R&O. Based on an already established record acknowledging the importance of incumbent 6 GHz services, the initial Notice of Proposed Rulemaking in this proceeding (“6 GHz NPRM”) proposed to open the entire 6 GHz band for unlicensed use by facilitating sharing of the band with incumbents, rather taking on than the much more complex project of relocating incumbent users to a different band in order to completely overhaul the 6 GHz band to make it suitable for exclusive licensed use.¹¹ In response, CTIA nevertheless urged the Commission to take a different tack and instead allocate a portion of the band for exclusive licensed use, arguing that less than the entire 1200 megahertz of 6 GHz spectrum would be sufficient for future unlicensed operations.¹² However, CTIA conceded this would require significant interagency work with NTIA to identify and clear another band to relocate the incumbents.¹³

¹¹ *Id.* at ¶¶ 15-17.

¹² Comments of CTIA, GN Docket No. 17-183, ET Docket No. 18-295, 3-6 (Feb. 15, 2019). CTIA also claimed that the importance of additional licensed mid-band spectrum outweighs the need for 1,200 megahertz of newly available unlicensed spectrum, particularly for reasons relating to international competitiveness. *Id.* at 3-4.

¹³ *Id.* at 9-13.

After evaluating a fulsome record on these arguments, the Commission declined to adopt CTIA’s preferred approach, and instead focused on facilitating sharing of the 6 GHz band between incumbent services and newly authorized unlicensed uses, as proposed.¹⁴ Based on a careful review of the record on this issue, the 6 GHz Report & Order reasonably determined that it may never be possible to relocate incumbents as CTIA proposed, and that doing so any time soon would certainly not be possible.¹⁵

The Commission, though, was unmistakably clear that with respect to licensing portions of the 6 GHz band that such action “would substantially affect existing licensed services in the band”¹⁶ and “...would run contrary to our approach in ensuring that existing incumbent services can continue to thrive in the 6 GHz band”.¹⁷ The Commission’s decision to authorize unlicensed operations across the entire 1200 MHz is consistent with its policy approach towards 6 GHz incumbent services. Unlicensed devices operate under the Commission’s Part 15 rules and thus will not constrain future expansion of incumbent services throughout 6 GHz band. The Commission also found that licensing a portion of the band would unduly constrain the unlicensed ecosystem by limiting the number of 160-megahertz and 320-megahertz channels, “diminish[ing] the benefits . . . to the American public” from future unlicensed services.¹⁸

¹⁴ See 6 GHz R&O ¶¶ 203-205.

¹⁵ *Id.* at ¶ 205.

¹⁶ *Id.*

¹⁷ *Id.* at ¶203.

¹⁸ *Id.*

Now, CTIA *again* asks the Commission to reconsider these determinations, making *exactly* the same arguments it raised before.¹⁹ CTIA’s petition “plainly do[es] not warrant consideration by the Commission,” because it “[r]el[ies] on arguments that have been fully considered and rejected by the Commission within the same proceeding.”²⁰ CTIA’s citation to a handful of new publications for the very same points it has made before is unavailing; the Commission has had these same arguments before it for nearly three years now.²¹ Moreover, contrary to CTIA’s claims,²² the Commission fully considered, addressed, and ultimately rejected such arguments in the 6 GHz R&O.²³

Nor would reconsideration be in the public interest. As the Commission explained in both the 6 GHz NPRM and the 6 GHz R&O, opening the entire 6 GHz band for unlicensed use will enable significant new opportunities for new unlicensed uses employing wider bandwidths to provide higher data rates, particularly given the band’s proximity to the existing 5 GHz U-NII

¹⁹ See CTIA Petition ¶¶ 3-4 (arguing that less than 1,200 megahertz is sufficient for future unlicensed uses); *id.* ¶¶ 4-6 (arguing that the need for additional mid-band licensed spectrum outweighs the need for 1,200 megahertz of additional unlicensed spectrum, particularly for reasons related to international competitiveness).

²⁰ 47 C.F.R. § 1.429(l)(3).

²¹ See, e.g., Comments of Mid-Band Spectrum Coalition, GN Docket No. 17-183, at 12-14 (Oct. 2, 2017); Comments of Ericsson, GN Docket No. 17-183, at 10 (Oct. 2, 2017); Reply Comments of T-Mobile USA, Inc., GN Docket No. 17-183, at 21 (Nov. 15, 2017).

²² See CTIA Petition ¶¶ 3-4.

²³ The Commission was also aware and would have taken into consideration the President’s October 2018 Presidential Memorandum. See NTIA, Memorandum to Executive Branch Agencies and Departments, Review of Current Frequency Assignments and Quantification of Spectrum Usage (August 1, 2019); Memorandum for the Heads of Executive Departments and Agencies, Developing a Sustainable Spectrum Strategy for America’s Future (rel. October 25, 2018).

bands.²⁴ The Commission properly weighed the relative public interest benefits of unlicensed use throughout the band compared to CTIA’s proposal, particularly given that the Commission reasonably determined it may never be possible to provide the incumbent accommodations needed to enable licensed use of a portion of the 6 GHz band.²⁵ Reconsideration is simply unwarranted here.

CTIA’s petition, however, does raise an important issue regarding the Commission’s action in making available additional spectrum to support domestic needs. Here, the DSA sees the current Commission as consistently recognizing the need for additional low-band, mid-band, and high-band spectrum for 5G services and taking actions to increase the U.S. spectrum pipeline. Critically, the Commission understands that 5G services will incorporate both licensed and unlicensed spectrum. In fact, the opening paragraph of the R&O states:

“Unlicensed devices operating in this band are expected to work in concert with new licensed 5G services by providing consumers’ ubiquitous connectivity to a full range of services regardless of location. Our actions taken in this Report and Order will help secure U.S. leadership in the next generation of wireless services.”²⁶

²⁴ See 6 GHz Notice ¶ 19; 6 GHz R&O ¶ 205; see also Reply Comments of Apple *et al.*, GN Docket No. 17-183, ET Docket No. 18-295, at 13-17 (Mar. 18, 2019); Reply Comments of the Wi-Fi Alliance, GN Docket No. 17-183, ET Docket No. 18-295, at 35-38 (Mar. 18, 2019); Reply Comments of the Wireless Internet Service Providers Association, GN Docket No. 17-183, ET Docket No. 18-295, at 18-20 (Mar. 18, 2019); Reply Comments of the Dynamic Spectrum Alliance, GN Docket No. 17-183, ET Docket No. 18-295, at 16-18 (Mar. 18, 2019).

²⁵ See 6 GHz R&O ¶ 205; see also Reply Comments of the Fixed Wireless Communications Coalition, GN Docket No. 17-183, ET Docket No. 18-295, at 42-44 (Mar. 18, 2019); Reply Comments of the National Public Safety Telecommunications Council, GN Docket No. 17-183, ET Docket No. 18-295, at 11 (Mar. 18, 2019); Letter from James S. Blitz, Vice President, Regulatory Council, Sirius XM Radio Inc., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295, GN Docket No. 17-183, at 1-4 (Feb. 22, 2020).

²⁶ See 6 GHz R&O at 1.

There can be no doubt the Commission's intent is for CTIA's mobile network operator members, the cable industry, and others to be able to access the unlicensed spectrum across the 6 GHz band, in accordance with its 6 GHz R&O to support their various spectrum needs. There is more to meeting domestic spectrum needs than pursuing policies where the sole answer is more exclusively licensed spectrum. The DSA supports the Commission's efforts to make additional spectrum available for licensed, lightly licensed, and unlicensed operations through a variety of spectrum sharing mechanisms, wherever and whenever possible.

III. THE FCC SHOULD REJECT PETITIONS TO INCREASE THE EIRP LIMITS OF STANDARD POWER ACCESS POINTS OPERATING UNDER AFC CONTROL

The Commission should dismiss or deny Verizon's request that it increase the conducted power limit of AFC-controlled standard power access points from 30 dBm to 36 dBm and the corresponding EIRP limit from 36 dBm to 42 dBm. Likewise, the Commission should dismiss or deny the related CTIA request that it permit AFC-controlled standard power access points to operate at greater than 36 dBm EIRP.²⁷ Neither request stated whether the proposed higher power standard power access point would be operating point-to-point or point-to-multipoint. Neither request stated whether the proposed higher power levels applied to all standard power access point operations or just those operating in rural and underserved areas. And most importantly, neither request provided any technical detail that the Commission could use for

²⁷ See 6 GHz R&O at ¶188. Under the Commission's rules, manufacturers can use any combination of transmitter power and antenna gain to reach the EIRP limit.

evaluation purposes. The Commission should dismiss or deny both the CTIA and Verizon requests.

In the 6 GHz NPRM, the Commission requested comment on whether it should permit unlicensed operations at higher power levels in rural and underserved areas above that authorized in the other U-NII bands.²⁸ The Commission asked further whether such operations “should be limited to point-to-point operations (possibly with a minimum antenna gain) or if point-to-multipoint operations should be permitted”.²⁹ The rationale for the Commission considering higher powers unlicensed operations in those portions of the band under AFC control is to increase access to rural broadband. The Commission has established the precedent by permitting higher power unlicensed white space devices (“WSD”) operations in “less congested areas”.³⁰

The DSA, in its Comments to the 6 GHz NPRM, requested the Commission authorize in rural and underserved areas: (1) higher-gain antennas for point-to-point use, (2) higher power steerable point-to-point operations, and (3) point-to-multipoint operations.³¹ We were disappointed that the Commission rejected our requests for higher power steerable point-to-point operations and point-to-multipoint operations. The Commission cited concerns over potential interference raised by APCO International and FWCC as justification for its decision.³² And

²⁸ See 6 GHz NPRM, 33 FCC Rcd at 10524, para. 79.

²⁹ *Id.*

³⁰ See 47 C.F.R. §15.709(a)(2).

³¹ See Comments of the Dynamic Spectrum Alliance, ET Docket No. 18-295, GN Docket No. 17-183, at 15 (filed February 15, 2019) (“DSA Comments to the NPRM”).

³² See 6 GHz R&O at ¶188 at FN 491.

while DSA believes the Commission took an overconservative approach, we did not file a petition to relitigate the Commission’s decision regarding point-to-multipoint operation because the arguments we made in this proceeding were rejected and thus not grounds for reconsideration.

With respect to the possibility of allowing higher power point-to-point operations for devices under AFC control, the Commission said it requires a more extensive record.³³ Consequently, the Commission asked a series of questions in its 6 GHz Further Notice on whether to allow standard power access points used in fixed point-to-point applications under AFC control to operate at power levels greater than 36 dBm.³⁴ The Commission specifically asks “...should there be a limit on the maximum conducted transmitter power as is done other U-NII bands...”³⁵ The DSA filed comments to the 6 GHz Further Notice on this topic.³⁶

To the extent that the CTIA and Verizon petitions are attempting to re-litigate the Commission’s decision not to allow standard power access points to operate point-to-multipoint at an EIRP limit greater than 36 dBm, their respective requests should be dismissed or denied. Further, while Verizon’s Comments assert that the Commission can permit access point operations (under AFC) at power levels above 36 dBm EIRP and could “allow power levels as

³³ *Id.* at 188.

³⁴ *Id.* at 252.

³⁵ *Id.* at 253.

³⁶ *See* Comments of the Dynamic Spectrum Alliance, ET Docket No. 18-295, GN Docket No. 17-183 at 20-23 (filed June 29, 2020) (“DSA Comments Further Notice”).

high as 50 dBm or more”³⁷ there is insufficient information provided to support these claims. Among other difficulties, granting this proposal would significantly increase the interference footprint for one particular sub-group of RLAN users with unequal access to elevated mounting platforms that have line-of-sight into densely populated areas where RLANs are likely to operate. Because the Commission did not require a contention-based protocol for standard power APs under control of an AFC, there is nothing to prevent the deployment of high-duty cycle next-generation LTE-U equipment (or LAA equipment configured without any limitation on maximum channel occupancy period). While unlicensed devices are not entitled to interference protection, they must also not cause harmful interference including to other unlicensed devices. Enabling a particular class of unlicensed users to deploy ultra-high power equipment for access layer service (as opposed to the backhaul service contemplated by wireless internet service providers) is inconsistent with the Commission’s stated objectives in this band.

Consequently, the Commission has no alternative but to deny Verizon’s Petition. The CTIA request doesn’t propose a new EIRP limit. It merely states it should be higher than what the limit is currently. Here too, the lack of any technical details requires the Commission to deny CTIA’s request. While the DSA agrees that AFC system will be robust, we believe the Commission does need some technical evidence on which to perform its analysis.

Like DSA, CTIA and Verizon have the opportunity to enter Comments into the record of the 6 GHz Further Notice regarding the Commission potentially increasing the conducted power and

³⁷ See Comments of Verizon at 10-11.

/ or EIRP limit of standard power access points under AFC control, intended for point-to-point operations in rural and underserved areas. DSA³⁸ and others have advocated in the 6 GHz Further Notice that the FCC permit use of actual RLAN antennas for all AFC operations. The Commission can accomplish Verizon’s goal by granting that request. Because higher power RLANs will be elevated, and therefore pointed down, they will have at least 5-8 dB of off-axis rejection in the horizontal plane towards FS receivers. Consequently, permitting actual RLAN patterns with an AFC that supports this feature is tantamount to a 6 dB power increase.

IV. THE COMMISSION SHOULD REJECT FIXED WIRELESS COMMUNICATIONS COALITION PETITION FOR RECONSIDERATION AS IT MERELY RECYCLES ARGUMENTS THE COMMISSION PREVIOUSLY REJECTED

The FWCC Petition requests the Commission: 1) codify a weighted 0.4% activity factor into its rules and 2) mandate testing prior of potential interference from RLAN devices, including LPI devices, prior to their release into commercial use.³⁹ The FWCC acknowledges that it generally disagrees with the Order, but claims that the Petition is limited “...to errors related to the Order’s failure to codify an activity factor or mandate testing...”⁴⁰ FWCC is merely attempting to re-litigate arguments that it had put forward previously in the proceeding and which the Commission had rejected. The Commission should dismiss or deny FWCC’s petition.

³⁸ See DSA Comments Further Notice at 20-23.

³⁹ See FWCC Petition at 1.

⁴⁰ *Id.* at 3.

First, FWCC's has previously made its case to the Commission that it should mandate a weighted activity factor cap at 0.4%.

“For the Commission’s analysis to hold water, the transmitted power average weighted activity factor must be no greater than 0.4% and must be embodied in the rules.”⁴¹

The Commission decision not to limit an unlicensed device’s activity factor is based on the extensive record in the 6 GHz NPRM docket, its reasoned decision to require LPI devices incorporate a contention based protocol as a means to prevent LPI devices from operating with very high duty cycles, and not as the result of an error.

Based on the record, the Commission concluded that Wi-Fi will be the predominant use case for LPI devices, and that the activity factor of these devices will be low. The Commission’s conclusion is based on measurement data CableLabs provided from over 500,000 Wi-Fi access points and studies that “used activity factors that were based on assumptions such as number of access points per person, the population density, and amount of data use per person rather than actual Wi-Fi measurements”.⁴²

As demonstrated in its analysis of the six AT&T scenario detailed at length in the 6 GHz R&O,⁴³ the Commission demonstrated it understood the relationship between an unlicensed device’s duty cycle and its potential for causing harmful interference, stating, “An interference

⁴¹ See Letter from Donald J. Evans and Seth Williams, Counsel to Fixed Wireless Communications Coalition, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295, GN Docket No. 17-183, at 2-3 (filed Apr. 13, 2020).

⁴² See 6 GHz R&O at ¶121

⁴³ *Id.* at ¶¶123-130.

source with a lower activity factor will have a lower impact than a continuous source.”⁴⁴ And based on the record, the Commission concluded with respect to the AT&T scenarios presented and more broadly,

“Combining the low probability of co-channel operation and low activity factor, we conclude that based on a 5 dBm/MHz EIRP, the low power indoor operation will have an insignificant chance of causing harmful interference to the microwave links for any of these six examples (or fixed microwave links more generally)”.⁴⁵

After evaluating the record, the Commission also decided not to place a limit on the activity factor, even taking in consideration the possibility of new applications that could drive spectrum usage in excess of projections. The Commission reasoned,

“[w]hile Wi-Fi data transmission will likely increase over time as new applications are developed, we expect that this will be counteracted in the 6 GHz band by the availability of 160 MHz or wider channels which will allow more data to be transmitted in a shorter period of time.”⁴⁶

Instead the Commission decided to require a contention-based protocol that will prevent extremely high duty cycles and the continuous use it had expressed concerns over.⁴⁷ Requiring LPI devices incorporate a contention-based mechanism should allay any concerns FWCC may have for future LPI devices that in theory could operate continuously as part of a Frequency Division Duplex network. For these reasons, the Commission should deny FWCC’s request that it caps the weighted activity factor of unlicensed LPI devices.

⁴⁴ *Id.* at ¶131.

⁴⁵ *Id.*

⁴⁶ *Id.* at ¶120.

⁴⁷ *Id.*

Regarding FWCC’s second request, the Commission fully considered and rejected its previous arguments that testing of all unlicensed 6 GHz devices are required prior to their release.⁴⁸ The FWCC’s avoidably-late post 6 GHz R&O “hold the presses” preliminary bench test data submission is generally bad form and when examined in detail, while it tries to create a lot of smoke, doesn’t even come close to making the case its purports to make. Overall, this is a thinly veiled effort to delay the commercialization of LPI devices while FWCC continues to work in getting the Commission to change its interference protection criteria.

FWCC claims that “Moreover, while the rules generally preclude consideration of late filed materials in a rulemaking proceeding, the Commission may consider new information under certain circumstances, which are met here.”⁴⁹ DSA strongly disagrees. The circumstances FWCC refers to in the Commission’s rules are clearly not met in this instance.⁵⁰ The “preliminary results” provided in Attachment A of FWCC’s comments were based on experiments conducted with transmitters operating in the 5.8 GHz band.⁵¹ As such, there was nothing “unknown” to the petitioner that prevented the FWCC member from performing the work, writing it up, and entering it into the record of the 6 GHz NPRM significantly before the Commission’s release of the 6 GHz R&O. If anything, FWCC could have easily used the Commission’s proposed rules for LPI devices to simulate test parameters. Note that the

⁴⁸ *Id.* at ¶177.

⁴⁹ *See* FWCC Petition at 8.

⁵⁰ *See* 47 C.F.R. § 1.429(b)(2).

⁵¹ *See* FWCC Comments at Appendix A.

Commission’s proposed LPI rules were considerably less conservative than the Commission’s final rules for LPI devices in the 6 GHz R&O. Additionally, the DSA does not see the value of the anonymous “real-world testing” vignette.⁵² There was insufficient technical detail regarding the “real-world testing” for any parties to perform any analysis or evaluation.

The Commission’s painstaking review of the AT&T and CableLabs submissions in the 6 GHz R&O demonstrated its commitment to performing a detailed analysis of technical record, especially where there were opposing views. The DSA is convinced that if FWCC submitted a completed and timely technical study, opposing parties would have been able to review and reply to it, and the Commission would be in a position evaluate the relevant submissions.

In sum, the Commission should dismiss FWCC’s request that it require additional interference testing for LPI devices based on its preliminary test results because, the FWCC request is inconsistent with Section 1.491(b)(1) and (b)(2) of the Commission’s rules.⁵³

V. THE COMMISSION’S 6 GHz RULES PROTECT PUBLIC SAFETY LICENSEES FROM HARMFUL INTERFERENCE APCO’S ARGUMENTS ABOUT LPI DEVICES HAVE BEEN CONSIDERED AND REJECTED BY THE COMMISSION

APCO International filed a Petition for Reconsideration requesting the Commission vacate its 6 GHz rules. APCO claims that in releasing its 6 GHz R&O, the Commission committed “a clear error in failing its statutory obligation to consider important public safety issues.”⁵⁴ APCO

⁵² *Id.* at 11.

⁵³ *See* 47 C.F.R. § 1.429(b)(1) and (b)(2).

⁵⁴ *See* APCO Petition at 4.

goes on to say, “The Order fails to address several fundamental issues, including basic measures to prevent, identify, and promptly eliminate harmful interference to public safety communications”.⁵⁵ Underlying APCO’s petition are two false premises, first, that the Commission’s decisions in the 6 GHz R&O will be harmful to public safety and second, that the Commission did not consider important public safety issues.

APCO acknowledges that many of the issues described in its petition were included in its Comments and in an ex parte letter filed after the draft Report and Order was released.⁵⁶ Of the eight requests APCO believes the Commission should “adopt at a minimum”⁵⁷, when stripped down, most of these requests fall into the category of arguments previously made to the Commission and subsequently rejected. These requests include (1) the Commission requiring both standard power and LPI access points be under AFC control, (2) disagreement with how the Commission ensures LPI devices will operate indoors, (3) limiting unlicensed operations to portions of the 6 GHz band – here referred to as a staged rollout, (4) expanding the AFC’s role from registration, authentication and authorization to also include automated enforcement, and (5) relitigating the Commission’s interference protection criteria through additional testing. The Commission should dismiss or deny these previously rejected requests.

⁵⁵ *Id.* at 3.

⁵⁶ *Id.*

⁵⁷ *Id.* at 13-14.

Additionally, Commission should deny APCO’s request to “evaluate the impacts to public safety in the cost/benefit analysis”. APCO unsupported premise that adoption of the Commission 6 GHz R&O will lead to additional costs for public safety is speculation, at best.

The DSA believes two ‘at a minimum items’ request items should be dismissed or denied but require more discussion.

First, APCO maintains the 6 GHz R&O overlooks “the need to protect public safety links operating under an emergency Special Temporary Authority (“STA”) because emergency STA’s can be obtained in time of crisis without filing in ULS until after the new channel is in use.”⁵⁸

Under the Commission’s rules, fixed links may begin operation prior to obtaining a license so long as certain criteria are met. These include completing successful frequency coordination and filing an application that appears in the ULS as pending.⁵⁹ Due to this possible time delay in granting a license, the Commission will require the AFC system to protect pending as well as granted facilities.

APCO acknowledges that the 6 GHz R&O does address “other types of temporary authorization”.⁶⁰ In the event temporary fixed links are authorized by a blanket authorization, a licensee is not required to obtain approval from the Commission prior to operating at specific locations or report the technical details of their operation to the Commission.⁶¹ The Commission

⁵⁸ *Id.*

⁵⁹ *See* 6 GHz R&O at ¶32.

⁶⁰ *See* APCO Petition at 13-14.

⁶¹ *See* 6 GH R&O at ¶32.

will require operators of temporary fixed links to register the details of the operation in the ULS to receiver protection from any nearby standard power access points.⁶²

According to the Commission, the process was designed not to be burdensome to the applicant.⁶³ Additionally, to protect incumbents, AFC systems must receive daily updates from ULS,⁶⁴ which includes pending applications.⁶⁵ If the public safety entity seeking an emergency STA can register its information in the ULS, its fixed transmitter(s) operating in the U-NII-5 and U-NII-7 under the emergency STA can be protected with 24 hours, if not sooner.

It was not clear from either APCO's comments or APCO's ex parte letter which paragraph of 47 C.F.R. §1.931 (Application for special temporary authority)⁶⁶ APCO was referring to when describing the timeline for when public safety entities applying for a STA need to register in the ULS. Maybe the language is contained in a different part of the Commission's rules. Presumably, though, a public safety applicant seeking emergency STA would still have to fill out Item 3b in FCC Form 601, including an exhibit.⁶⁷ The DSA expects the information submitted in the exhibit would have many similarities to what would be provided to the ULS. The Commission estimates that Form 601 can be completed in less than 90 minutes. The point being, that it would not be burdensome for a public safety entity to provide the registration

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.* at ¶30.

⁶⁵ *Id.* at ¶32.

⁶⁶ 47 C.F.R. §1.931.

⁶⁷ See FCC Form 601, Item 3b. <https://transition.fcc.gov/Forms/Form601/601.pdf>.

information about the emergency STA in the ULS. Ironing out the finer points of this process – how to ensure emergency STAs in the U-NII-5 and U-NII-7 are efficiently recorded into the ULS seems like a perfect project for the MSG tackle. The Commission should dismiss or deny this request as it can be achieved through means other than a rule change.

Second, APCO claims that the Commission’s rules are unlikely to be effective in protecting incumbent licensed users because the accuracy of the location information necessary to prevent interference from standard power access points will be inadequate.⁶⁸

The Commission has developed a multi-layer strategy for protecting fixed service incumbents operating in the 6 GHz band from harmful interference. The Commission requires that AFC systems calculate exclusion zones for co-channel and first adjacent channel incumbent operations based on an criteria interference protection criteria of $I/N=-6$. As the Commission explains, an exceedance of $I/N=-6$ does not represent harmful interference. It is the criteria the Commission uses for protection level more sensitive than the I/N ratio that would cause harmful interference.

The standard power access point includes incorporated geolocation capability. Different geolocation techniques have different uncertainties for the X, Y, and Z coordinates. The standard power access point must report its geocoordinates and height to the AFC and the uncertainty in its position at the 95 percent confidence level. The size of the exclusion zone is based on the standard power access point’s uncertainty in its position. The greater the certainty in the position

⁶⁸ See APCO Petition at 5.

of the standard power access point's location, the smaller the exclusion zone. The greater the uncertainty in the position of the standard power access point's location, the larger the exclusion zone. There will be different size exclusion zones on co- and first-adjacent channel. This is the exact same approach the Commission used to protect over the air television broadcast receivers from fixed WSDs. The Commission should dismiss or deny this request because the under the multi-layer approach put in place by the Commission to protect incumbents from standard power access point from harmful interference, the size of the co- and first adjacent channel exclusion zones will adjust depending on the location and location accuracy of the standard power access points geocoordinates and height at the 95 percent confidence level.

Finally, the petitioner requests that the AFC is capable of promptly identifying and eliminating potential sources of interference following a complaint from a public safety agency. APCO provided arguments to the Commission regarding the functions of the AFC and the role of the MSG. The Commission decision on the AFC functions represented a clear rejection of APCO's arguments. Some of the issues APCO raised are intended for the MSG to address rather than through the Commission. It is important to note the Commission sees itself as the backstop for all bona fide complaints of harmful interference.

“We encourage formation of a multi-stakeholder group that would include representatives of unlicensed equipment manufacturers, equipment users and point-to-point microwave providers to develop additional procedures to resolve interference concerns. Regardless of the processes that stakeholders may develop for addressing interference, consistent with statute the Commission will be the final arbiter regarding cases of harmful interference”.⁶⁹

⁶⁹ See 6 GHz R&O at ¶84.

Requesting the AFC system automatically be the final arbiter of alleged cases of interference raised by public safety seems contrary to the Commission's decision. Consequently, the Commission should dismiss or deny this request because some of the elements were previously argued by the petitioner over the course of the proceeding and rejected by the Commission, and other elements will be addressed by the MSG rather than having the Commission institute rules.

VI. CONCLUSION

The Commission should reject all four Petitions for Reconsideration submitted to its 6 GHz R&O. Most requests for reconsideration were arguments that had been previously made to-, considered by-, and then rejected by the Commission in the proceeding. As such, under the Commission's rules, these requests are inappropriate for reconsideration. Additionally, the part of the CTIA and Verizon Petitions that were not out of scope of the NPRM or did not attempt to relitigate reasoned decision made by the Commission in the 6 GHz R& O, is being considered in the 6 GHz Further Notice. Finally, the request for reconsideration by APCO regarding emergency STAs can be addresses by the MSG rather than by changing the Commission's rules.

Respectfully submitted,



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President
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CERTIFICATE OF SERVICE

I, Martha Suarez, certify that I have this 29th day of July 2020, served the foregoing Opposition to Petitions for Reconsideration of the Dynamic Spectrum Alliance by electronic mail, to the following:

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