ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

EDISON ELECTRIC INSTITUTE *Petitioners*,	)	
v.	)	No. 20-1216 (Lead 20-1190)
FEDERAL COMMUNICATIONS COMMISSION and UNITED OF STATES AMERICA, *Respondents*.	)	
UTILITIES TECHNOLOGY COUNCIL, *et al.*, *Petitioners*,	)	
v.	)	No. 20-1281 (Lead 20-1190)
FEDERAL COMMUNICATIONS COMMISSION and UNITED OF STATES AMERICA, *Respondents*.	)	

REPLY

Edison Electric Institute, the Utilities Technology Council, the National Rural Electric Cooperative Association, and the American Public Power Association (collectively "Petitioners") hereby reply to the Federal Communication Commission's ("FCC's") and Intervenors' Responses in

opposition to the emergency motions to stay the FCC's Order (collectively, the "Respondents").

Respondents' arguments are contradictory, illogical, and ignore the critical nature of Petitioners' use of the 6 GHz band. They assume their unsupported premise—that any interference with Petitioners' use of the band will be insignificant—and then argue both that the risk of interference is too remote to warrant a stay because there is no indication that any interfering devices will be on the market in the near future, and that a stay will harm the public because the devices must be allowed on the market as soon as possible.

Respondents cannot have it both ways. If the devices will not be on the market in the near future, then staying the Order while the Court determines the merits of the petitions presents no harm to the public or industry. By contrast, absent a stay, Petitioners are left to guess when their critical operations will be threatened by interference and are potentially only one significant device away from a devastating, life-threatening catastrophe. This is a tangible threat that a stay will prevent.

I. The harm to incumbent users is imminent.

Respondents downplay the immediate risk to electric utilities' wireless networks. Despite the Intervenors' suggestion that the rollout of 6 GHz devices

will be slow, technology vendors continue to state in public filings that the demand for 6 GHz devices is expected to be immediate.[1]

The FCC adds that the devices will not be on the market prior to being "certified under FCC standards." (FCC Resp. at 3.) But there is no timeline for this process. Nor is there any opportunity for Petitioners to be heard during or after this process. Because no one, including the FCC, can predict when these devices will enter the market, the Intervenors' criticism of the timing of the motions to stay is misplaced. The risk of this seemingly unknown timing, coupled with the potential for catastrophic results, compelled the motions to stay.

II. Respondents' claimed safeguards against are inadequate.

The Respondents rely on the FCC's conclusion that there is no risk of interference with Petitioners' critical operations. Banking on this conclusion, Respondents dismiss Petitioners' arguments and concerns.

As to Petitioners' argument that the Order contravenes Section 301 and applicable regulations, an argument Intervenors ignore, the FCC retorts that the term "endangers" requires "peril of *probable* harm" and that there must be "significant potential" for interference. (FCC Resp. at 12.) This retort suffers from the same flaw that pervades the Responses: the harm to incumbent users'

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[1] *See, e.g.*, Letter from Apple et al., to Marlene H. Dortch, Secretary, ET Docket No. 18-295 (Aug. 31, 2020).

operations is "probable," there is "significant potential" for interference, and the FCC's contrary assertions are unsupported. *See AT&T Corp. v. FCC*, 236 F.3d 729, 737 (D.C. Cir. 2001) ("[T]he FCC's conclusory statements cannot substitute for the reasoned explanation that is wanting in this decision." (quotation marks and citation omitted))).

The FCC next repeats that the risk to incumbent user operations is low due to safeguards it has put in place. As repeatedly brought to the FCC's attention, none of the safeguards is remotely sufficient, and the FCC's *ipse dixit* conclusion that there will be no "significant" interference with Petitioners' operations should not be credited in face of significant risk of harm should such interference occur.

The FCC first claims that the new devices are only allowed to operate indoors, attenuating interference. (FCC Resp. at 14-15.) It expects users to comply with the indoor-only requirement due to product design limitations (no weather-resistance, external antenna capability, or battery operation), which make outdoor operation undesirable, bolstered by instructions, and small-print labeling. The FCC assumes that consumers will understand all this and refrain from operating the new devices outdoors.

The Commission's draft certification guidelines, however, show a concerning intent to obfuscate the indoor-only operation restriction by permitting battery power packs on all devices and requiring indoor-use-only labeling on some,

but not all, devices. FCC Office of Engineering and Technology, *U-NII 6 GHz devices operating in the 5.925-7.125 GHz band*, Draft Certification Guidelines DR01 987594-44057, at 5-9 (August 15, 2020). These draft guidelines, which the FCC can finalize at any time without further stakeholder participation, confirm that the "indoor-use-only" restriction cannot, and will not, restrict outdoor device functionality.

The FCC also points to indoor restrictions in other bands (FCC Resp. at 18), glossing over material differences. Most notably, the 6 GHz devices here will be low-cost and accessible, leading to deployment of millions, if not billions, of unlicensed devices, a stark contrast to the minimal tens of thousands involved in other bands.[2]

The Court should be skeptical that consumers will comply just because outdoor installation allegedly is impractical or against the rules. Such assurances are contrary to human nature, particularly among consumers eager to operate the newest devices. This is evident from the market of third-party weatherproofing products for electronics that will likely expand further once devices hit the market. There will be a subset of consumers who will not read the instructions, or if they

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[2] *Compare In the Matter of Amendment of the Commission's Rules to Provide for Operation of Unlicensed NII Devices in the 5 GHz Frequency Range*, 12 FCC Rcd. 1576, 1615 n.152 (1997).

do, will disregard them to maximize coverage, extending 6 GHz connectivity to their decks, patios, or nether-reaches of their backyards. The FCC's conclusion that indoor devices will cause no harmful interference requires complete compliance from all consumers and provides no safeguards for intentional or accidental outdoor use.

The outdoor restriction argument also fails to account for interference from billions of client devices not restricted to indoor operation. Wi-Fi networks are two-way streets, with fixed access points (wireless routers) and client devices (phones, tablets, computers, drones, etc.) communicating in the band and radiating interference. The Order's restriction against outdoor use applies only to access points, meaning countless 6 GHz client devices will be able to operate outside. Any small cluster of client devices at any one outdoor location, even if communicating with access points located indoors, could be devastating to utility networks. The FCC's silence as to this threat is deafening.

The FCC next claims that contention-based protocols will be prophylactic. These protocols, designed to limit the amount of time a device transmits, are ill-suited to protect incumbent microwave networks. Such protocols are currently designed only to enable Wi-Fi devices to detect other devices operating in close proximity, and only of the same type. No protocol exists that enables devices to detect, identify, and coordinate with distant fixed microwave transmissions.

Ample record evidence showed that contention-based protocols will offer no material protection to incumbent licensees.[3]

The FCC also touts restricted power levels, but the 5 dBm/MHz level it chose is entirely arbitrary and unsupported by record evidence. *See U.S. Tel. Ass'n v. FCC*, 188 F.3d 521, 524-26 (D.C. Cir. 1999). The FCC provided no reasoned basis for choosing 5 dBm/MHz PSD as the appropriate number, citing only its "experience" and "engineering judgment." Order ¶ 110. And, of course, by limiting operations to a specific power level, the FCC implicitly acknowledges that unlicensed operations can cause harmful interference. Order ¶¶ 110, 112.

The FCC finally explains that even if consumer use does not fully comply with the indoor use criteria, harmful interference can be addressed by formal complaints and Enforcement Bureau investigations. But incumbent fixed microwave networks lack the technical capability to detect, identify, trace, and report whether links have failed because of unlicensed devices. The systems have no means to triangulate on potential sources of interference. At most, incumbents will be able to identify only that their systems have failed and that harmful

[3] *See, e.g.*, Letter from AT&T to Marlene H. Dortch, Secretary, ET Docket No. 18-295 (Apr. 16, 2020) at 5; Letter from CTIA to Marlene H. Dortch, Secretary, ET Docket No. 18-295 (Apr. 14, 2020) at 20.

interference from unlicensed devices operating in the band is a possible reason. This is no solution.

Even if a source were identified, the Enforcement Bureau lacks the ability to address the issue effectively and timely. There is no system to register and track unlicensed devices, and the Enforcement Bureau will struggle to even identify interference much less mitigate it. The FCC's Response assumes, without any further explanation, that the Enforcement Bureau's "specialized spectrum monitoring equipment" will be efficient to pinpoint interference sources and resolve claims of interference. (FCC Resp. at 19.) Petitioners have no idea what this specialized spectrum monitoring equipment is or how it might work.

The FCC points to a single Notification of Harmful Interference sent on February 15, 2018 after interference was detected on November 30, 2017. (Order ¶ 149, n.397 (citing Notification of Harmful Interference, Victor Rosario, EB-FIELDNER-17-00025658 (EB Feb. 15, 2018)).) This Notice provides no explanation as to the 77-day delay in notifying the source of detected interference, nor any indication as to when the original complaint, spurring the entire investigation, was received.

The more recent *Wi-Fi Services Caribbean* investigation by the Enforcement Bureau is particularly instructive that detecting the source of interference from a Wi-Fi access point is a time-intensive process. It took the Enforcement Bureau 54

days to investigate and stop a single non-compliant Wi-Fi access point causing harmful interference to an FAA doppler radar system.[4] Electric utilities, which use fixed point microwave equipment to balance supply and demand for electricity on a second-by-second basis as required by the laws of physics, do not have that kind of time.

The FCC also provides no explanation as to how the current lengthy process can be expedited and scaled to account for the significant numbers of 6 GHz devices. Furthermore, there has been no indication that the Enforcement Bureau's purported "specialized technology" is even capable of providing faster resolution of harmful interference reports. Even if the Bureau could be scaled up to handle a multitude of interference reports, utilities will be left with unacceptable risk to their microwave networks and will have to wait for disaster to strike before they get any help from the FCC. Unfortunately, it is just a matter of time.

III. The FCC understates the importance of utility wireless networks in the 6 GHz band.

Incumbent utilities are committed and obligated to saving lives and property during disasters by keeping critical electric grids operating, and therefore require

[4] Wi-Fi Services Caribbean, Inc San Juan, Puerto Rico, Notice of Apparent Liability for Forfeiture and Order, DA 20-433 (Apr. 22, 2020).

uninterrupted, uninterfered-with operations to provide reliable service and to protect the public. (*See* Motion at 15-17.)

Instead of properly acknowledging this, the FCC reverts to a false premise: because public safety and utility incumbents' technical use of fixed links is functionally similar to that of commercial fixed link incumbents, no further analysis or even acknowledgment of the unique risk is required. (FCC Resp. at 23.) Treating unlicensed use and public safety and utilities' incumbent licensed use of the 6 GHz band as a mere competing uses of the spectrum, the FCC puts these users on equal footing with Wi-Fi devices manufacturers and consumers. (*Id.* at 4-5.)

Petitioners are not competing commercial users of spectrum whose safety interests should be balanced away in favor of new device deployment. The FCC's treatment of incumbent utilities' interests as equal flouts the public safety concerns that motivated this Court's reasoning in *Mozilla Corp. v. FCC*, 940 F.3d 1, 62 (D.C. Cir. 2019) ("As noted by Santa Clara County, unlike most harms to edge providers incurred because of discriminatory practices by broadband providers [i.e., economic harms], the harms from blocking and throttling during a public safety emergency are irreparable. People could be injured or die.").

Deflecting, the FCC considers a cursory acknowledgment that electric utilities are included in the universe of incumbent 6 GHz users to be adequate

acknowledgement of the specific requirements for their provision of service. (FCC Resp. at 20.) This conflation ignores the vital time-sensitive, rapid-response role 6 GHz networks play in an emergency or natural disaster. Should an incumbent electric utility's network experience interference during an emergency, first responder communication systems could well be rendered inoperable, providing devastating impacts to communities in dire situations.

The FCC dismisses Petitioners' alarm regarding the potential devastation as a doomsday, altogether ignoring that responding to public emergencies is precisely part of electric utilities' jobs. (*Id.* at 17.) The threat is frightfully real—the catastrophic impact cautioned by the Petitioners throughout the proceeding, and indeed motivating the motion for stay, is not a question of "if," but rather "when."

IV. The balance of harms and the public interest favor a stay.

Petitioners have described real, dangerous scenarios that would result from unpredictable interference from new devices operating in the 6 GHz band. *See generally* Motion Exhibits 3-5 (declarations of Trosclair, Bornhoft, and Kuberski).[5]

[5] The FCC objects to the Bornhoft declaration as "improper" because the Petitioners that did not seek a stay before the FCC "have not shown that it would have been 'impracticable' for them" to do so. (FCC Resp. at 9 n.2). Putting aside that there is no material difference between the relief sought before the FCC and relief Petitioners seek before this Court, the FCC offers no explanation or authority for why a supporting factual declaration relevant to the issues in a motion should be disregarded.

By contrast, Respondents exaggerate the harm to consumers and to businesses hoping to capitalize on the expanded use of the band, alleging harms in the form of continued Wi-Fi congestion and unspecified delays to development of Wi-Fi-enabled technology. The former is, to take Respondents at their word, the status quo and, again, per Respondents, unlikely to change in the near future, although whether this is true is unknown. Per the FCC, the devices "cannot be brought to market without compliance testing with still-to-be adopted procedures." (FCC Resp. at 30.) Given that the procedures are "still-to-be adopted," a stay cannot harm the public by preventing access to these devices; there is no access to prevent.

As to the latter purported harm to the technology manufacturers, there is no reason to believe that technological development would not continue during the pendency of this proceeding. Indeed, the FCC argues that a stay would "sow[] uncertainty . . . discourage investment . . ., and 'delay companies from receiving the benefit of the investment they have made.'" (FCC Response, at 31.) These economic harms are speculative and undefined, but, even if true, they cannot outweigh the risks to public welfare posed by permitting unfettered, unlicensed usage of the 6 GHz band.

The balance of harms, and the safety and health of the public, weigh in favor of a stay.

CONCLUSION

During the pendency of this appeal, incumbent licensed users of the 6 GHz band should be protected from disruptive interference. To prevent a catastrophic failure of these lifesaving systems, this Court should grant a stay of the Order pending judicial review.

Respectfully submitted,

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I certify that on September 18, 2020, I caused a copy of the foregoing to be served on all counsel of record through the Court's CM/ECF system and sent a paper and email copy to:

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