

Documents for the Record – 07.09.2024

1. A July 9, 2024, letter to committee leadership on billing.
2. A July 2, 2024, letter to subcommittee leadership from the Chamber of Commerce.
3. A July 3, 2024, letter to Marlene Dortch from CERCI.
4. A June 6, 2024, letter to Marlene Dortch from CERCI.
5. A June 25, 2024, report from CERCI on OIG.
6. A July 8, 2024, letter to committee leadership from Environmental Health Trust.
7. A July 8, 2024, letter to Committee leadership from the National Call for Safe Technology.
8. An April 15, 2024, memo regarding Written Ex Parte – Amendment of Part 90 of the Commission's Rules, WP Docket No. 07-100.
9. A July 8, 2024, statement from Consumers for Safe Cell Phones.



July 9, 2024

The Honorable Bob Latta
Chairman
Subcommittee on Communications and
Technology
U.S. House Committee on Energy and
Commerce
2467 Rayburn House Office Building
Washington, DC 20515

The Honorable Doris Matsui
Ranking Member
Subcommittee on Communications and
Technology
U.S. House Committee on Energy and
Commerce
2311 Rayburn House Office Building
Washington, DC 20515

Dear Chair Latta and Ranking Member Matsui,

The National Multifamily Housing Council (NMHC) and National Apartment Association (NAA) submit this letter regarding the Subcommittee's hearing entitled, "The Fiscal Year 2025 Federal Communications Commission Agency Budget." Given the FCC Commissioner's appearance at the hearing, we are writing to raise concerns with the FCC's forthcoming action on bulk billing.

For more than 25 years, NMHC and NAA have partnered on behalf of America's apartment industry. Our combined memberships are engaged in all aspects of the apartment industry, including ownership, development, management, finance, and suppliers partners/service providers. Drawing on the knowledge and policy expertise of staff in Washington, D.C., as well as the advocacy power of 141 NAA state and local affiliated associations, NMHC and NAA provide a single voice for developers, owners, and operators of multifamily rental housing. One-third of all Americans rent their housing, and 38.9 million of them live in an apartment home.

The FCC's announcement indicates that its forthcoming proposal will "seek to eliminate" the use of bulk billing arrangements in the provision of broadband services in apartments and public housing, among other multi-unit dwellings.¹ This plan is troubling and fails to recognize the positive role of bulk billing in providing many communities with affordable and efficient access to broadband services. Recently, after hearing from a diverse range of stakeholders opposing such a move, the FCC has apparently shifted its efforts to require consumer opt-outs from bulk billing service despite the technical challenges and possibilities that many low-income households could be disconnected from the internet and millions more could face higher prices for broadband service.

The FCC's apparent new approach to require consumers' ability to opt out of bulk service misunderstands the technical and practical implications of such a move. First, from a technical perspective, consumer opt-out may not be feasible or advisable. Second, property operations and smart technologies rely on constant, always-on service across the property. The prospect of some apartment homes to be unconnected will disrupt the mesh network and disable critical, sustainability focused devices such as leak detection or climate controls. Third, the bulk model has fostered a hyper competitive market across segments of the multi-tenant environment because providers, especially smaller, independent providers, are able to justify the capital expenditure to deploy bulk or managed Wi-Fi systems. Market participation by smaller, independent providers forces large providers to serve markets that they previously determined were not economically viable to preserve market share, which promotes the consumer interest as a natural consequence of the bulk model. Enabling a reduction in service levels could

¹ <https://docs.fcc.gov/public/attachments/DOC-400915A1.pdf>

negatively impact property level performance and therefore providers could disinvest in the rental housing environment which will lead to less competition, increased costs for renters and large swaths of American rental housing properties outside of the reach of modern broadband.

Bulk billing arrangements are inherently pro-consumer and pro-renter. They are routinely leveraged by housing providers and internet service providers (ISPs) to enable residents to access lower-cost broadband internet in their homes immediately upon their move. This service is provided at a significantly discounted rate, typically at higher speeds and service standards than what are found in the broader community. Renters in these properties also often have the ability to add service options for higher speed if desired. The arrangements lead to better reliability and customer service than elsewhere in the market that meet resident demand and improve property level resilience and sustainability in addition to supporting the deployment of innovative smart building and home technologies.

The arrangements also remove several common obstacles consumers face in accessing broadband because bulk billing eliminates common costs that stem from equipment rentals, credit checks, and security deposits. Bulk billing agreements benefit all parties involved. In addition to the many benefits to renters just outlined, housing providers see increased renter satisfaction due to the higher quality of service provided under the arrangements, while ISPs, particularly smaller providers, enjoy a steady revenue stream from the property in return for providing blanket service at a lower rate.

This model is especially beneficial for communities with a higher population of lower-income, affordable, student, and/or senior housing. These groups are often disadvantaged in the traditional retail model because of the costs to the provider of deploying and maintaining the necessary broadband infrastructure on the property.

Given these factors, the FCC's forthcoming action would jeopardize many consumers' access to more affordable broadband services. It would also be a departure from the FCC's previous findings, which clearly identified the benefits of bulk billing arrangements.² In fact, the potential benefits of bulk billing have only grown since the FCC's assessment. Prohibition or any significant regulation of bulk billing arrangements would also create a substantial risk of disruption in communities across the country. As outlined above, low-income and disadvantaged communities would be particularly hard-hit in that scenario.

Bulk billing arrangements are of such great potential benefit that Congress has effectively endorsed them.³ The impact of the arrangements on the price of broadband must also be considered because Congress has not granted the FCC authority to regulate broadband rates. This absence of existing statutory authority is of particular concern given the agency's limited funds and resources. The FCC's regulatory efforts should be deployed to further the mandates given to the agency by Congress. Initiatives outside of the FCC's statutory authorities are a drain on the agency's staff and a misuse of the resources and powers outlined by Congress. By overstepping its statutory mandate, the FCC also risks opening the door to costly legal challenges.

The FCC must address these factors as it considers action in this space. Further, we emphasize that any potential rulemaking should receive an extended comment window to provide

² <https://www.fcc.gov/document/exclusive-service-contracts-provision-video-services-multiple>

³ <https://www.govinfo.gov/content/pkg/USCODE-2022-title47/pdf/USCODE-2022-title47-chap5-subchapV-A-partIII-sec543.pdf>

stakeholders with sufficient time to meaningfully address the elements discussed above in a substantive manner.

Bulk billing arrangements are an important tool in providing communities, particularly low-income and disadvantaged communities, with greater access to affordable, reliable, and high-quality broadband service. Any actions that would curtail this model should be approached with caution as they would have ramifications ranging from higher costs of service to broad disruptions in service for consumers who currently benefit from a bulk billing arrangement.

We urge the Subcommittee to continue monitoring the FCC's regulatory agenda to ensure the agency does not direct funds towards activities that overstep its statutory mandate.

Sincerely,



Sharon Wilson Géno
President
National Multifamily Housing Council



Robert Pinnegar
President & CEO
National Apartment
Association



July 2, 2024

The Honorable Robert Latta
Chair
Subcommittee on
Communications and Technology
U.S. House of Representatives
Washington, DC 20515

The Honorable Doris Matsui
Ranking Member
Subcommittee on
Communications and Technology
U.S. House of Representatives
Washington, DC 20515

Dear Chair Latta and Ranking Member Matsui:

The U.S. Chamber of Commerce (“Chamber”) respectfully submits the following statement for the record for the House Energy and Commerce’s Subcommittee on Communications and Technology hearing titled “*Budget Hearing with the Federal Communications Commission.*” We appreciate the Subcommittee’s continued oversight of the Federal Communications Commission (“FCC”) to ensure they remain focused on closing the digital divide while maintaining American leadership in communications and connectivity.

America’s communications networks and platforms have an essential role in connecting Americans and are revolutionizing how people are informed, work, learn, seek medical care, and communicate with friends and family. The private sector also plays a critical role in keeping the “digital lights” on for the economy by investing tens of billions into communications infrastructure and employing millions of Americans.

However, the Chamber is concerned the FCC’s aggressive regulatory agenda will hinder broadband access for millions of Americans, raise consumer prices, and exceed the FCC’s legal authority. Instead, the FCC and lawmakers should focus on closing the digital divide through sensible broadband infrastructure investments and restart the Affordable Connectivity Program to ensure millions of Americans can remain online.

I. Digital Discrimination Order

In November 2023, the FCC finalized its *Digital Discrimination Order*, (“rule”) which was mandated by the Infrastructure Investment and Jobs Act to address alleged discrimination in the broadband marketplace and to ensure equal access to broadband with respect to income level,

race, and religion.¹ The FCC, however, adopted an expansive reading of the statute that imposes a burdensome disparate impact standard, where businesses and local governments can be held liable for legitimate broadband deployment access decisions even if they do not intend to discriminate. Moreover, the rule covers nearly every business practice pertinent to broadband access, ranging from customer service to pricing. The rule applies to internet service providers, as well as any entity that facilitates access to broadband, such as local governments, landlords, or construction companies.

The Chamber strongly opposes this rule. We believe it contradicts Congressional intent and is based upon a fundamental misinterpretation of the statute. In particular, the scope of the FCC’s “digital discrimination” rule and inclusion of a disparate impact standard vastly exceed the FCC’s statutory authority and the U.S. Supreme Court’s guardrails for disparate impact liability.² Consequently, the Chamber along with several parties filed lawsuits challenging the rule this Spring, which is pending in the Eighth Circuit Court of Appeals.³

II. Title II Reclassification Order

On April 25th, the FCC voted to reinstate Title II reclassification (“Order”) on the broadband marketplace.⁴ Reclassification imposes a 1930s-era public utility framework intended to regulate legacy telephone networks, in a competitive and rapidly innovating sector. The Order allows the FCC to exercise extensive powers to micromanage a broadband provider’s business practices. We are concerned that regulatory forbearances allowed under Title II could change from administration to administration, leading to instability and uncertainty in the broadband market. The Title II framework creates significant uncertainty as to what other provisions a future FCC may impose. In the past, when the FCC opted for Title II reclassification, investment in broadband networks slowed without any intervening major negative economic event.⁵ If the FCC’s Title II Order stands, it risks adversely impacting the ability of the private sector and government broadband deployment programs to successfully close the digital divide.

III. FCC’s Newest Attempts to Micromanage the Private Sector

¹ *Implementing the Infrastructure Investment and Jobs Act: Prevention and Elimination of Digital Discrimination*, GN Docket No. 22-69, Report and Order, FCC 23-100 (rel. Nov. 20, 2023) (Digital Discrimination Order).

² Brief for Industry Petitioners at 23, *Minnesota Telecom Alliance et al. v FCC*, No. 24-1179 (8th Cir. April 24, 2024).

³ Press Release, Chamber of Com. of the U.S., *U.S. Chamber Sues FCC Over Overreaching, Unlawful, and Counterproductive Broadband Rule* (Jan. 30, 2024), <https://www.uschamber.com/technology/broadband/u-s-chamber-sues-fcc-over-overreaching-unlawful-and-counterproductive-broadband-rule>.

⁴ David Shepardson, *Net Neutrality Rules Restored by US Agency, Reversing Trump*, REUTERS (April 25, 2024), <https://www.reuters.com/technology/us-agency-vote-restore-net-neutrality-rules-2024-04-25/>.

⁵ See Phoenix Center for Advanced Legal & Economic Public Policy Studies, *Comment Letter on the Notice of Proposed Rulemaking In the Matter of Safeguarding and Securing the Open Internet*, WC Docket No. 23-320 (filed Dec. 14, 2023).

The FCC has also pursued other regulatory projects to micromanage the communications marketplace.

First, the FCC issued a Notice of Proposed Rulemaking (“NPRM”) to ban cable operators and direct satellite broadcast providers from charging early termination fees (“ETFs”) and billing cycle fees (“BCFs”).⁶ The FCC lacks legal authority to prohibit these practices and its attempts to regulate rates violate the Cable Act.⁷ Also, the NPRM’s underlying policy justification to prohibit these pricing practices is flawed. Such pricing practices benefit all consumers by creating lower average costs per consumer and allowing providers to offer variable price and benefits packages based on consumer needs.

Second, Chairwoman Rosenworcel announced the circulation of a proposal to prohibit bulk billing arrangements for communications services in multi-tenant environments, such as condos, public housing, and apartments.⁸ Previously, the FCC’s record has found that bulk billing benefits consumers through lower prices and keeping communities connected. Moreover, the prohibition interferes with the ability of building owners and homeowners’ associations to negotiate and contract with internet service providers on the best arrangement for tenants and homeowners. The Chamber expresses deep concern with the direction of the NPRM and believes it should be withdrawn.

IV. Conclusion

The Chamber appreciates the Subcommittee’s continued oversight of the FCC. We look forward to working with Congress to provide for a regulatory environment that encourages innovation and investment, rather than price controls and micromanagement of the private sector.

Sincerely,



Tom Quaadman
Executive Vice President

⁶ Promoting Competition in the American Economy: Cable Operator and DBS Provider Billing Practices, Notice of Proposed Rulemaking, MB Docket No. 23-405 (rel. Dec. 14, 2023).

⁷ Chamber of Com. of the U.S., Comment Letter on the Notice of Proposed Rulemaking In the Matter of Promoting Competition in the American Economy: Cable Operator and DBS Provider Billing Practices, MB Docket No. 23-405 (filed Mar. 4, 2024).

⁸ Press Release, Chairwoman Jessica Rosenworcel, FCC Chairwoman Announces Push to Lower Broadband Costs & Increase Choice for Families Living in Apartment Buildings (Mar. 5, 2024), <https://docs.fcc.gov/public/attachments/DOC-400915A1.pdf>.

Chamber Technology Engagement Center
U.S. Chamber of Commerce

cc: Members of the Subcommittee on Communications and Technology



COALITION FOR EMERGENCY RESPONSE AND CRITICAL INFRASTRUCTURE

July 3, 2024

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: *Ex Parte* Letter – Amendment of Part 90 of the Commission’s Rules, WP Docket No. 07-100

Dear Ms. Dortch:

Pursuant to Section 1.1208 of the Federal Communications Commission’s (“Commission”) Rules,¹ the Coalition for Emergency Response and Critical Infrastructure (“CERCI”) submits this summary of oral presentations made at a meeting it requested with the Commission. On July 1, 2024, representatives of CERCI, met with representatives of the Commission’s Office of General Counsel² to discuss legal concerns with the Public Safety Spectrum Alliance’s (“PSSA”) proposal that the Commission assign the 4.9 GHz band to the First Responder Network Authority (“FNA”).³

At the meeting, CERCI’s representatives explained, as it has in its written submissions,⁴ that the legal merits of the PSSA’s plan are not a close call: The Commission clearly lacks authority to assign the 4.9 GHz band to FNA, and FNA clearly lacks authority to receive it. The analysis begins and ends with the statute. FNA’s enabling act established a narrow, one-time carve-out to the established division of authority between the National Telecommunications and

¹ 47 C.F.R. § 1.1208; *see also* 47 C.F.R. § 1.1206.

² Representatives of CERCI included Jessica Ring Amunson, Elizabeth Deutsch, and Trey Hanbury of Jenner & Block LLP. Roger Sherman of Quadra Partners was present in his capacity as CERCI Policy Advisor. Representatives of the Commission included Anjali Singh, Douglas Klein, Paul Powell, Deborah Broderson, and Chin Yoo.

³ *See generally Ex Parte* Letter from Chief Jeffrey D. Johnson (Ret.), Public Safety Spectrum Alliance, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, WP Docket No. 07-100 (Apr. 23, 2024); *Ex Parte* Letter from Chief Jeffrey D. Johnson (Ret.), Public Safety Spectrum Alliance, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, WP Docket No. 07-100 (May 24, 2024).

⁴ *See generally Ex Parte* Letter from Kenneth Corey, NYPD Chief of Dept. (Ret.), CERCI Chairman, and Roger C. Sherman, CERCI Policy Advisor, the Coalition for Emergency Response and Critical Infrastructure, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (Apr. 15, 2024); *Ex Parte* Letter from Kenneth Corey, NYPD Chief of Dept. (Ret.), CERCI Chairman, and Roger C. Sherman, CERCI Policy Advisor, the Coalition for Emergency Response and Critical Infrastructure, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (May 10, 2024); *Ex Parte* Letter from Kenneth Corey, NYPD Chief of Dept. (Ret.), CERCI Chairman, and Roger C. Sherman, CERCI Policy Advisor, the Coalition for Emergency Response and Critical Infrastructure, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (June 6, 2024).

Information Administration (“NTIA”) (which oversees Federal spectrum use) and the Commission (which oversees non-Federal spectrum use), directing the Commission to assign the 700 MHz band—and only the 700 MHz band—to FNA.⁵ And the statute likewise authorizes FNA to hold and operate “the *single* public safety wireless license” over the 700 MHz band.⁶ No other statutory provision provides the Commission or FNA with the authority needed to accomplish the proposed assignment. Any contrary reading would violate the major questions and nondelegation doctrines.

CERCI’s representatives added that PSSA’s more recent proposal that the Commission effect this unlawful assignment indirectly through a forced sharing agreement with a Band Manager does not solve the problem. For one, courts will be extremely skeptical of an attempt to circumvent the highly reticulated statutory scheme by laundering the illegal spectrum assignment through a sham Band Manager. For another, while Section 2.103(b) of the Commission’s rules allows an incumbent licensee to enter into a *voluntary* sharing agreement with a Federal entity,⁷ any arrangement *requiring* licensees to do so would amount to assignment by fiat, which is prohibited.

CERCI’s representatives also discussed concerns with FNA’s constitutional structure, particularly the appointment of its Board of Directors and self-funding mechanism, as well as serious policy concerns with encroaching on incumbent licensees’ spectrum access. State and local public safety organizations have strong reliance interests in the current allocation because their broadband systems depend on incremental buildouts in response to annual budget allocations. Eliminating the state and local public safety allocation would not only strand existing state and local 4.9 GHz band infrastructure investments, but also upend state and local deployment plans and collaborations with critical infrastructure industries.

Should any questions arise concerning this submission, please contact me.

Sincerely,

The Coalition for Emergency Response and Critical Infrastructure (CERCI)

/s/ Roger C. Sherman

Kenneth Corey
NYPD Chief of Dept. (Ret.)
CERCI Chairman

Roger C. Sherman
CERCI Policy Advisor

cc: Meeting Attendees

⁵ See 47 U.S.C. § 1421.

⁶ See *id.* § 1426(b)(1) (emphasis added); *id.* § 1421.

⁷ See 47 C.F.R. § 2.103(b).



COALITION FOR EMERGENCY RESPONSE AND CRITICAL INFRASTRUCTURE

June 6, 2024

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

Re: *Ex Parte* Letter – Amendment of Part 90 of the Commission’s Rules, WP Docket No. 07-100

The Coalition for Emergency Response and Critical Infrastructure (“CERCI”) submits this letter in response to the Public Safety Spectrum Alliance’s (“PSSA”) *ex parte* letter of May 24, 2024, and the National Registry of Emergency Medical Technicians’ (“NREMT”) *ex parte* letter of May 29, 2024.¹ At issue is PSSA’s proposal to assign the 4.9 GHz band to the First Responder Network Authority (“FNA”), either directly through a nationwide license or indirectly through a forced “sharing agreement.”² CERCI previously submitted two legal memoranda outlining the numerous constitutional and statutory problems with PSSA’s proposal.³

¹ See generally *Ex Parte* Letter from Chief Jeffrey D. Johnson (Ret.), Public Safety Spectrum Alliance, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, WP Docket No. 07-100 (May 24, 2024) (“PSSA Letter II”); *Ex Parte* Letter from Mike McEvoy, National Registry of Emergency Medical Technicians, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, WP Docket No. 07-100 (May 29, 2024) (“NREMT Letter”).

² See generally *Ex Parte* Letter from Chief Jeffrey D. Johnson (Ret.), Public Safety Spectrum Alliance, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, WP Docket No. 07-100 (Apr. 23, 2024) (“PSSA Letter I”).

³ See generally *Ex Parte* Letter from Kenneth Corey, NYPD Chief of Dept. (Ret.), CERCI Chairman, and Roger C. Sherman, CERCI Policy Advisor, the Coalition for Emergency Response and Critical Infrastructure, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (Apr. 15, 2024) (“CERCI Letter I”); see also *Ex Parte* Letter from Kenneth Corey, NYPD Chief of Dept. (Ret.), CERCI Chairman, and Roger C. Sherman, CERCI Policy Advisor, the Coalition for Emergency Response and Critical Infrastructure, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (May 10, 2024) (“CERCI Letter II”).

PSSA’s latest letter purports to “provide clarity regarding the Commission’s legal authority” to adopt PSSA’s proposal, but it does no such thing.⁴ Rather than engage meaningfully with the legal issues CERCIC has raised, PSSA primarily responds with policy arguments.⁵ As for NREMT’s letter, to the extent it engages in any substantive legal analysis, it either misunderstands CERCIC’s concerns or rehashes arguments from prior comments that CERCIC has already refuted.⁶ Ultimately, although both PSSA and NREMT express their strong preference for FNA to control the 4.9 GHz band, neither PSSA nor NREMT is able to explain how that control would be lawful, regardless of whether the Federal Communications Commission (“Commission”) attempts to accomplish it directly or indirectly.

Only NTIA May Assign Spectrum to Federal Entities. With respect to the Commission’s statutory authority to “[f]acilitate” FNA’s use of the 4.9 GHz spectrum, PSSA ignores the actual statutory text and instead resorts to invoking the Commission’s purportedly “broad mandate” as expressed in the Communications Act’s “purpose[s].”⁷ But as CERCIC’s submissions have previously explained, those provisions “are general grants of authority that do not speak to the specific question at hand” and “say nothing whatever about the Commission’s authority to assign

⁴ PSSA Letter II at 7.

⁵ PSSA’s policy arguments are misguided. PSSA, for example, has cited a four-page submission from Roberson and Associates purporting to analyze the intensity of use of the 4.9 GHz band. See PSSA Letter II at n.4, citing Roberson and Associates, LLC, *Utilization Analysis of 4.9 GHz Spectrum* (Feb. 1, 2024). The Commission has long recognized that measuring “utilization” is a complex, multidimensional, and technically challenging exercise. See, e.g., *Advancing Understanding of Non-Federal Spectrum Usage*, WT Docket No. 23-232, Notice of Inquiry, ___ FCC Rcd ___ (Aug. 3, 2023). But PSSA compounded this well-known problem by ignoring the submission’s various caveats, limitations, and cautionary notes. Roberson and Associates developed its so-called “utilization” estimate based on factors unrelated to actual spectrum use: the authors simply compared the number of public safety entities licensed against the total number of public safety entities. But comparing 1,912 unique 4.9 GHz licensees’ FCC Registration Numbers against the nearly 23,000 geographically defined public safety agencies does not mean that the 4.9 GHz band is 8.3% utilized ($1,912 / 22,944 = 8.3\%$). A different methodology could employ the same type of information to support the equally unwarranted conclusion that the 4.9 GHz band is 600% or more utilized. For example, two state-wide 4.9 GHz licenses cover all of California; two 4.9 GHz licenses cover Los Angeles County; and two 4.9 GHz licenses cover the city of Los Angeles. Based on a metric that compares licenses to geography, spectrum “utilization” in the city of Los Angeles is 600%, not 8.3%. Neither metric is representative of the actual intensity of use, of course. The point is simply that a “utilization” metric that does not account for actual operations simply cannot provide insight into actual use. It also says nothing about the relative value of meeting the needs of state and local public safety operators and critical infrastructure industries against satisfying the demands of FNA and its vendor, AT&T, to support a mix of FNA and commercial end-user traffic.

⁶ See Comments of the First Responder Network Authority, WP Docket No. 07-100 (Apr. 13, 2023); Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (Apr. 12, 2023); Reply Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (May 14, 2023).

⁷ PSSA Letter II at 2.

bandwidth to *Federal* entities as a category, or to the FNA in particular.”⁸ The Commission lacks authority, absent express statutory authorization, to assign spectrum to a *Federal* entity—a task reserved for the National Telecommunications and Information Administration (“NTIA”)—whether through a license or via a forced “sharing agreement” with a Band Manager.⁹ PSSA suggests that the Middle Class Tax Relief and Job Creation Act of 2012 (the “2012 Act”) provides the required statutory authority, but CERC I has exhaustively explained how the text, structure, purpose, and regulatory context for the 2012 Act “categorically foreclose any argument that the Act authorizes the Commission to allocate the 4.9 GHz band to the FNA.”¹⁰

Lack of Public Comment Cannot Wish Statutory Authority into Existence. PSSA also attempts to ground the Commission’s authority in the fact that “[n]o one objected” to an aspect of the *Sixth Report and Order* that allowed states to lease 4.9 GHz spectrum. But the cited portions of the *Sixth Report and Order* allowed states to lease 4.9 GHz spectrum *in general*, not to FNA specifically.¹¹ A state’s authority to lease spectrum to a Federal entity proves nothing about the *Commission’s* authority to force a licensee to do so: such a leasing arrangement, unlike PSSA’s proposed mandatory “sharing agreement,” would be voluntary.¹² In any case, PSSA’s contortions to find meaning in silences related to prior Commission actions PSSA otherwise opposed refutes itself: statutory authority is not magically conferred by commenters’ failure to object in a tangentially related prior proceeding.

The 2012 Act Granted FNA 700 MHz Spectrum (and Only 700 MHz Spectrum). With respect to FNA’s authority to receive and integrate the 4.9 GHz band into the Nationwide Public Safety Broadband Network (“NPSBN”), PSSA notes that the Act’s definition section does not mention the 700 MHz band when defining the NPSBN, and then argues that a number of general powers the Act grants to FNA authorize it to accept another band of spectrum.¹³ But as previously explained, “Section 1426(b)—which governs the FNA’s operation of the NPSBN—includes multiple references to the 700 MHz band and its corresponding license, confirming that the two are coextensive.”¹⁴ And none of the general-powers provisions that PSSA cites authorizes FNA to expand the NPSBN beyond the 700 MHz network specified in the Act.¹⁵ Rather, for reasons

⁸ CERC I Letter I at attachment 7 (discussing 47 U.S.C. §§ 301, 303).

⁹ See CERC I Letter I at attachment 1-8; CERC I Letter II at attachment 2-4.

¹⁰ CERC I Letter I at attachment 3.

¹¹ PSSA Letter II at 3; see generally *In re Amendment of Part 90 of the Commission’s Rules*, WP Docket No. 07-100, Sixth Report and Order and Seventh Further Notice of Proposed Rulemaking, 36 FCC Rcd 1958, 1964-72 ¶¶ 20-36 (2020) (“*Sixth Report and Order*”).

¹² Cf. 47 C.F.R. § 2.103(b). Along similar lines, NREMT argues that “Section 2.103, today, would allow the FNA” or any Federal entity “to gain access to the 4.9 GHz band.” NREMT Letter at 3. But that argument similarly misses CERC I’s point. Even if the Commission has authority to *allow* licensees to *share* spectrum with Federal entities, it does not follow that the Commission has authority to *force* a sham Band Manager to grant a Federal entity virtually exclusive access to an entire nationwide license. The former is a sharing authorization; the latter is an outright allocation in all but name.

¹³ See PSSA Letter II at 5-6; see also 47 U.S.C. § 1401(21).

¹⁴ CERC I Letter I at attachment 9.

¹⁵ See 47 U.S.C. § 1426(a), (b).

previously explained, those provisions “simply enable the FNA to fulfill its otherwise-provided statutory obligations to administer the 700 MHz band.”¹⁶ Contrary to PSSA’s and NREMT’s latest submissions, these numerous textual limitations on FNA’s authority are not overcome by the provision permitting FNA to “tak[e] into account new and evolving technologies.”¹⁷ PSSA omits, and NREMT concedes, that this provision is confined to what FNA is permitted to do when “updat[ing] and revis[ing] any policies” it has established to operate the network.¹⁸ This incidental grant of authority to take new technologies into account when operating in the 700 MHz band can hardly justify FNA taking over an entirely different band.¹⁹

FCC Rules and Rulings Confirm FNA’s Statutory 700 MHz Limitation. PSSA incorrectly contends that CERC I “[m]isunderstands the [n]ature of [r]egulatory [a]ction” by “confus[ing] the status of statutes enacted by Congress with rules promulgated by the Commission.”²⁰ Neither of CERC I’s earlier submissions contended that the Commission is unable to change its own rules, but no amount of regulatory creativity can overcome statutory limitations regarding the Commission’s and FNA’s authority. CERC I’s submissions cited the Commission’s rules to show that the Commission itself has long understood the Act to limit the NPSBN to the 700 MHz band, and that PSSA’s belated proposal to amend Section 2.103 of the Commission’s rules would stray so far from anything contemplated in the *Ninth Further Notice* as to create logical outgrowth issues.²¹ And, despite quoting the Supreme Court’s decision in *FCC v. Fox Television Stations, Inc.*²² at length, PSSA fails entirely to respond to CERC I’s concerns about the significant reliance interests of existing state and local public-safety licensees that would be harmed by PSSA’s proposed scheme.²³

Ignoring Constitutional and Statutory Concerns Does Not Make Them Disappear. PSSA likewise fails to meaningfully respond to several other issues raised by CERC I. PSSA hardly attempts a response to CERC I’s major questions and nondelegation concerns, nor to its

¹⁶ CERC I Letter I at attachment 11. PSSA also notes that a provision of the 2012 Act authorizes the Commission to “provide technical assistance to [FNA] and [to] take any action necessary to assist [FNA] in effectuating its duties and responsibilities under” the Act. 47 U.S.C. § 1433; see PSSA Letter II at 5. But again, the “duties and responsibilities” described in the Act do not include expansion of the NPSBN to the 4.9 GHz band. Moreover, it would be absurd to read the phrase “technical assistance” to include more than doubling the bandwidth FNA currently administers.

¹⁷ See PSSA Letter II at 5 (quoting 47 U.S.C. § 1426(c)(4)); see also NREMT Letter at 2.

¹⁸ 47 U.S.C. § 1426(c)(4).

¹⁹ In any case, CERC I has already refuted the notion that references to “evolution” in the 2012 Act can plausibly be read to “refer to any change anywhere and to authorize any response—including the incorporation of any other spectrum that the FNA may deem consistent with ‘technological advancements.’” CERC I Letter I at attachment 12.

²⁰ PSSA Letter II at 6.

²¹ See CERC I Letter II at attachment 2, 9 n.52; CERC I Letter I at attachment 5-7; see generally *In re Amendment of Part 90 of the Commission’s Rules*, Seventh Report and Order and Ninth Further Notice of Proposed Rulemaking, 38 FCC Rcd 704 (2023).

²² 556 U.S. 502 (2009).

²³ See CERC I Letter II at attachment 4-5.

Anti-Deficiency Act (“ADA”) concerns.²⁴ And it offers *no* response to CERC’s Appointments Clause, funding structure, and Federal Advisory Committee Act (“FACA”) concerns.²⁵ Only NREMT even attempts to address these additional statutory and constitutional concerns. And in each instance, NREMT’s response is inadequate.

As to CERC’s ADA concerns, NREMT argues that “the PSSA proposal is necessarily ‘authorized by law’ for the purposes of the ADA because the FNA has express authority to ‘spend funds’ and ‘take such other actions as may be necessary’ to further its statutory mission,” as well as to “‘accept’ and ‘utilize gifts, donations, and bequests of property ... for the purposes of aiding or facilitating the work of’ the FNA.”²⁶ But that argument is circular: as NREMT admits, its position rests entirely on the premise that the 2012 Act also “grants the FNA authority to use the 4.9 GHz band,” which—for the reasons CERC previously explained—it does not.²⁷ In any case, NREMT (and PSSA) fails to provide any additional details about the leasing arrangement between the Band Manager and FNA that could assuage concerns about a potentially unlawful lease fee or other unauthorized obligation to construct and operate facilities using the spectrum.

PSSA’s Band Manager Selection Committee Qualifies as a Federal Advisory Committee. NREMT’s response to CERC’s FACA argument likewise fails. NREMT contends that “[t]he proposed Band Manager Selection Committee is not an ‘advisory committee’ subject to FACA.”²⁸ But as previously explained, the proposed Selection Committee has all the hallmarks of such an advisory committee: “it has, ‘in large measure, [1] an organized structure, [2] a fixed membership, and [3] a specific purpose’; and “[4] render[s] advice or recommendations, *as a group*, and not as a collection of individuals.”²⁹ NREMT faults CERC for not “explain[ing] how the Selection Committee is ‘established’ or ‘utilized’ by the Commission under the ‘very narrow interpretation’ of those terms as used in FACA,” but NREMT takes that “very narrow interpretation” language out of context and fails to explain how the Selection Committee would not be “established” or “utilized” by the Commission.³⁰ Under PSSA’s proposal, the Commission would itself form the Selection Committee and would exercise significant management and control over it—for example, prescribing the criteria it would use and selecting its membership.³¹ And contrary to

²⁴ *See id.* at attachment 5-6, 8-9.

²⁵ *See id.* at attachment 7-11.

²⁶ NREMT Letter at 4 (quoting 31 U.S.C. § 1341(a)(1)(B); 47 U.S.C. § 1426(a)(5); *id.* § 1426(a)(6); *id.* § 1426(a)(4)).

²⁷ NREMT Letter at 4.

²⁸ *Id.*

²⁹ CERC Letter II at attachment 7 (quoting *Ass’n of Am. Physicians & Surgeons, Inc. v. Clinton*, 997 F.2d 898, 913-14 (D.C. Cir. 1993) (emphasis in original)).

³⁰ NREMT Letter at 4 (quoting *Byrd v. EPA*, 174 F.3d 239, 245 (D.C. Cir. 1999)). In the *Byrd* case, the putative advisory committee was established by a private contractor rather than an agency. *Byrd*, 174 F.3d at 241-42. The court’s “very narrow interpretation” of FACA must be understood in that context. *See id.* at 246-47 (holding that “an agency ‘establishes’ a committee only if the agency forms the committee,” and that “the utilized test ... denot[es] something along the lines of actual management or control of the advisory committee” (internal quotation marks, citation, and emphasis omitted)).

³¹ *See* PSSA Letter I at 3.

NREMT's argument, CERCI's concern that the proposed Selection Committee members are so close to FNA and AT&T as to flunk FACA's "fairly balanced" requirement³² is not "vague" or "unsubstantiated."³³ CERCI's last submission collected numerous press releases and stories showing that PSSA has suggested members with close ties to FNA and/or AT&T.³⁴

NREMT's Other Efforts to Defend Constitutionally Problematic Arrangements Are Unavailing. NREMT's response to CERCI's private non-delegation concerns likewise misses the point. NREMT focuses on the uncontroversial proposition that the proposed Band Manager would be subject to the Commission's rules.³⁵ Meanwhile, NREMT fails to address the problem that the Commission would not itself review the Band Manager's decisions, and thus would not "retai[n] authority to approve, disapprove, or modify the proposed reallocation of public-domain usage rights."³⁶

NREMT's responses to CERCI's concerns with FNA's constitutional structure also fall flat. To start, contrary to NREMT's argument, those concerns are indeed "germane to PSSA's proposal,"³⁷ given that PSSA's proposal would have the Commission grant vast new resources and responsibilities to an entity whose constitutionality is suspect and has never been tested. With respect to the Appointments Clause, the opinion that NREMT cites for the proposition that the "vast majority of those who work for the Federal Government are not 'Officers of the United States'"³⁸ is a *dissent* from a case in which the Supreme Court held that even an administrative law judge for the Securities and Exchange Commission was an officer and not a mere employee.³⁹ Especially in light of that holding, NREMT cannot seriously contend that the Board members of a Federal "independent authority"⁴⁰ charged by statute with "tak[ing] all actions necessary to ensure the building, deployment, and operation" of a congressionally created "nationwide public safety broadband network"⁴¹ do not "exercise significant authority pursuant to the laws of the United States."⁴² Nor does NREMT explain how being nominally housed within NTIA and subject to limited supervision of *finances only* by the Secretary of Commerce and NTIA are "obvious indicators of meaningful supervision,"⁴³ given that the Secretary and NTIA do not otherwise "supervis[e]" the FNA Board's work nor "direct" that work *at all*.⁴⁴ Finally, contrary to NREMT's

³² See CERCI Letter II at attachment 8; 5 U.S.C. § 1004(b)(2).

³³ NREMT Letter at 4.

³⁴ See CERCI Letter II at attachment 8 n.44.

³⁵ See NREMT Letter at 5.

³⁶ CERCI Letter II at 8-9; see *Ass'n of Am. R.R.s v. U.S. Dep't of Transp.*, 721 F.3d 666, 671 (D.C. Cir. 2013), *vacated and remanded on other grounds*, 575 U.S. 43 (2015).

³⁷ NREMT Letter at 5.

³⁸ *Lucia v. SEC*, 585 U.S. 237, 269 (2018) (Sotomayor, J., dissenting); see NREMT Letter at 5.

³⁹ See *Lucia*, 585 U.S. at 244-51.

⁴⁰ 47 U.S.C. § 1424(a).

⁴¹ *Id.* § 1424(b)(1).

⁴² *Buckley v. Valeo*, 424 U.S. 1, 126 (1976), *superseded by statute on other grounds as stated in McConnell v. FEC*, 540 U.S. 93 (2003).

⁴³ NREMT Letter at 5.

⁴⁴ See *Edmond v. United States*, 520 U.S. 651, 662-63 (1997).

argument,⁴⁵ the Supreme Court’s recent decision in *Consumer Financial Protection Bureau v. Community Financial Services Association of America, Ltd.*⁴⁶ does not alleviate CERCI’s concerns about FNA’s funding structure. Unlike the agency at issue in that case, FNA is funded by user fees and does not have a fixed, quantitative “statutory cap” on the funds it can raise. FNA therefore “exercis[es]” far more “discretion” with respect to “its own funding” than the organization at issue in the *Community Financial Services* decision.⁴⁷

* * *

In short, PSSA has yet to provide a coherent account of how its proposals are lawful, nor has NREMT adequately done so on PSSA’s behalf. Although PSSA and NREMT may believe it is desirable for FNA to operate the 4.9 GHz band, neither has explained the constitutionality or legality of PSSA’s proposal. The Commission should decline PSSA’s invitation to act beyond the clear constitutional and statutory lines that limit the Commission’s and FNA’s authority with respect to the 4.9 GHz band.

Sincerely,

The Coalition for Emergency Response and Critical
Infrastructure (CERCI)

/s/ Roger C. Sherman

Kenneth Corey
NYPD Chief of Dept. (Ret.)
CERCI Chairman

Roger C. Sherman
CERCI Policy Advisor

⁴⁵ See NREMT Letter at 6.

⁴⁶ 601 U.S. 416 (2024).

⁴⁷ *Cnty. Fin. Servs.*, 601 U.S. at 436 (citing 12 U.S.C. § 5497(a)(2)); see 47 U.S.C. § 1428(b) (authorizing FNA to raise fees up to “the amount necessary, to recoup [its] total expenses ... in carrying out its duties and responsibilities described under” the 2012 Act).



COALITION FOR EMERGENCY RESPONSE AND CRITICAL INFRASTRUCTURE

June 25, 2024

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

**Re: *Ex Parte Letter* – Amendment of Part 90 of the Commission’s Rules,
WP Docket No. 07-100**

The U.S. Department of Commerce Office of Inspector General (OIG) recently released another report that finds further FirstNet Authority (FirstNet) oversight failings, *FirstNet Authority’s Lack of Contract Oversight for Device Connection Targets Puts the NPSBN at Risk of Impacting First Responders’ Use of the Network* (OIG Report or Report).¹ The Report, which is attached to this filing, determines that FirstNet failed in its oversight of AT&T’s compliance with device connection targets for public safety users, and concludes: “FirstNet Authority does not have reasonable assurance that the data AT&T is reporting is accurate and reliable to support the primary program objectives of public safety adoption and use of the network.”² This is a serious failure of FirstNet to meet one of its fundamental responsibilities. FirstNet’s response to these findings, which OIG describes as “*inaccurate and misleading*”³ is especially surprising.

This OIG Report follows other recent OIG reports that show multiple failures of FirstNet oversight and compliance.⁴ For example, last month, OIG issued a report on FirstNet’s network

¹ See Inspector General, U.S. Department of Commerce, Final Report No. OIG-24-027-A, *FirstNet Authority’s Lack of Contract Oversight for Device Connection Targets Puts the NPSBN at Risk of Impacting First Responders’ Use of the Network* (June 12, 2024) (“OIG Report”).

² *Id.* at 5, 11.

³ *Id.* at 13 (emphasis added).

⁴ See Inspector General, U.S. Department of Commerce, Management Alert, Final Memorandum No. OIG-24-022-M, *Management Alert: The NPSBN Band 14 Signal Strength Does Not Consistently Provide Adequate Band 14 Service for First Responders* (May 16, 2024) (“Network Coverage Management Alert”); Inspector General, U.S. Department of Commerce, Report, Final Report No. OIG-24-024-A, *FirstNet Authority did not Ensure the Nation’s First Responders’ Needs were Continuing to be Met Timely when Modifying Key Objectives of the NPSBN Contract*

coverage, finding that the use of FirstNet’s current signal strength is insufficient to meet public safety needs or for the network to be considered high-performance, as required by its contract with AT&T.⁵ These reports demonstrate widespread unwillingness or inability to provide meaningful oversight to ensure AT&T compliance with contract requirements as well as the Spectrum Act that created FirstNet.⁶

Instead of focusing on current operational challenges that affect public safety users, FirstNet and its allies appear to be consumed with a lobbying effort to appropriate the 4.9 GHz spectrum band, disrupting a well-established policy of local control in favor of a nationalized model. The Coalition for Emergency Response and Critical Infrastructure (CERCI) respectfully submits that the Commission act on the assurance it provided in its grant of FirstNet’s renewal license last year to “monitor AT&T’s performance under the contract and FirstNet’s oversight of AT&T under FirstNet’s renewed license.”⁷ Namely, the Commission should demand that FirstNet recognize its responsibilities under its license and the Spectrum Act, acknowledge its shortcomings, perform its duties, and focus on ensuring that AT&T is meeting its commitments, instead of pursuing an unlawful giveaway of the 4.9 GHz spectrum band that would undermine local public safety control of this important resource.

Based on the most recent OIG Report, FirstNet has plenty of work to do. The latest OIG Report “identified significant internal control weaknesses regarding contract oversight as it relates to device connection targets.”⁸ Specifically, the Report finds FirstNet failed to (1) “develop measurable performance standards and methods of surveillance to assess if reported device connections complied with the Act and contract requirements;” (2) “develop an adequate performance metric to accurately measure public safety use and adoption;” (3) “review AT&T’s quality control program results or consistently conduct audits of raw data;” and (4) “remediate deficiencies for device connections.”⁹ This is problematic, because, as OIG explains, “inadequate oversight may allow ineligible users and unapproved devices on the NPSBN, which could impact first responders’ [network use].”¹⁰ Further, it “increases the risks of (1) the

(May 30, 2024); Inspector General, U.S. Department of Commerce, Report, Final Report No. OIG-24-026-A, *FirstNet Authority’s Lack of NPSBN Contract Oversight for Coverage Puts at Risk First Responders’ Ability to Serve the Public Effectively* (June 5, 2024).

⁵ See Network Coverage Management Alert at 3.

⁶ Pub. L. No. 112-96, 126 Stat. 156.

⁷ First Responder Network Authority, Order, 38 FCC Rcd 4989, WP Docket No. 07-100, ¶ 21 (May 26, 2023).

⁸ OIG Report at 16.

⁹ *Id.* at 2.

¹⁰ *Id.* at 11.

government paying for services it did not actually receive and (2) AT&T not paying the government disincentive payments when appropriate.”¹¹

The OIG Report also reveals a pervasive culture of deference to AT&T, as also indicated by FirstNet’s actions with regard to the 4.9 GHz spectrum. The Report takes issue with FirstNet’s claim that it “rigorously enforced clear performance standards” – for example, it states that “although FirstNet Authority had knowledge of AT&T not being on track to meet device connection targets, it failed to implement corrective action as outlined in the contract [quality assurance surveillance plan] remediation activities for performance deficiencies.”¹² Instead, the Report finds, “FirstNet Authority issued a contract modification that adjusted device connection targets and lowered the targets in states where AT&T had issues meeting those targets.”¹³

While NTIA concurs with OIG’s recommendations and directs FirstNet to take responsive actions, OIG concludes by expressing deep misgivings about FirstNet’s intent and willingness to do so:

Based on FirstNet Authority’s comment concerning its allegedly rigorous quality assurance and control activities, we have serious concerns that FirstNet Authority will not resolve the issues we identified in this report or take the necessary actions to improve internal controls.... Without adequate controls to assess compliance, FirstNet cannot have assurance the program is meeting or exceeding the goals and intent of the Act.¹⁴

* * * *

¹¹ *Id.* at 4.

¹² *Id.* at 13.

¹³ *Id.* at 16.

¹⁴ *Id.* at 16, 17.

The Commission should conclude that as an organization, FirstNet needs to re-commit itself to meeting its statutory responsibilities and core mission overseeing the National Public Safety Broadband Network. Directly or indirectly gifting the 4.9 GHz band to FirstNet, which will merely regift it to AT&T to share among the company’s commercial and public safety users, would not only be unlawful and unwise but, as these reports show, pose a major distraction from FirstNet’s core mission.

Sincerely,

The Coalition for Emergency Response and
Critical Infrastructure (“CERCI”)

/s/ Kenneth Corey
Kenneth Corey
NYPD Chief of Dept. (Ret.)
CERCI Chairman

/s/ Roger C. Sherman
Roger C. Sherman
CERCI Policy Advisor

Attachment

July 8, 2024

TO: House Energy & Committee

FROM: Environmental Health Trust
Theodora Scarato
Theodora.Scarato@ehtrust.org

RE: Submission for the hearing to be held July 9:
“Fiscal Year 2025 Federal Communications Commission Budget.”

Submitted via email to clerk of the committee: Noah.Jackson@mail.house.gov

Dear Chairs McMorris Rogers and Latta, Ranking Members Pallone and Matsui, and Members of the Committee,

We write to you in advance of your hearing tomorrow, “Fiscal Year 2025 Federal Communications Commission Budget.”¹

We thank the Committee for considering our comments on FCC oversight. Environmental Health Trust (EHT) is a not-for-profit scientific think tank that promotes a healthier environment through research, education and policy. In 2021, the U.S. Court of Appeals issued a favorable ruling in our lawsuit against the FCC regarding its refusal to update its 1996 regulations for wireless radiofrequency (RF) radiation. The FCC has not responded to the court order mandating that the FCC provide a reasoned explanation as to how its RF regulations are sufficiently protective of children's vulnerability, long term exposures, wildlife and the environment.

We ask that Committee members consider asking FCC Chair Rosenworcel the following questions during the hearing:

1. What is the status of FCC complying with a court order issued by the US Court of Appeals DC Circuit in 2021² to provide a reasoned explanation for retaining its 1996 limits for human exposure to radiofrequency (cell tower radiation)?
 1. What steps has the FCC taken to comply with the court order? (See below for description of the court order, which found that the FCC had ignored record evidence and failed to comply with its statutory obligations issued by Congress)

1

<https://energycommerce.house.gov/events/communications-and-technology-subcommittee-hearing-the-fiscal-year-2025-federal-communications-commission-agency-budget>

2

[https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/$file/20-1025-1910111.pdf)

2. What dollar amount in the FCC's budget request is allocated for complying with the DC Circuit order?
 3. When does the FCC expect to comply with and satisfy the requirements contained in the court's mandate?
 4. How can the FCC greenlight wireless proliferation without ensuring its exposure guidelines and regulations for wireless radiation are adequately protective?
2. Will the FCC begin a rulemaking based on [the latest science](#)³ to update its human radiofrequency exposure guidelines? Ensuring an up to date review and rulemaking would help reassure the public that the technology the FCC is rolling out (by expanding its power of preemption over local zoning authority) is safe for children, families, wildlife and the environment? Current wireless exposure guidelines are largely based on the results of a few studies performed over 40 years ago of just 11 monkeys and 12 rats, which were exposed for less than one hour⁴ GAO first recommended that the FCC revisit these limits back in 2012 and the FCC has not yet done so. (see [Attachments 1 and 2](#) below.)
3. Additional important questions to ask the FCC
1. Why is there no measuring and monitoring of ambient cell tower RF levels nationwide? Many other countries have [robust publicly posted cell tower radiation measurement](#) data⁵ but the US has no RF measurement program, nor any public information on ambient levels.⁶
 2. Given that the FCC does not have wildlife expertise in-house, will it request agencies with expertise such as the Environmental Protection Agency and Fish and Wildlife Service address the issue of wildlife exposure to RF, especially in light of published research indicating that insects, especially bees and other pollinators, are uniquely vulnerable to 5G's higher frequencies? If not, why not?
 3. As FCC RF limits were not designed to protect wildlife, how does it assure safety for animals in wilderness, forests, parks and ecologically sensitive areas?
 4. Telecommunications companies generally check for the RF compliance of their cellular towers/network antennas by measuring RF levels where people stand on the ground, but not up near the antennas where birds may perch or where tree limbs exist. Why isn't the FCC ensuring compliance for wildlife and wildlife habitat?
 5. Why is there no national database of all wireless facilities (including 4G and 5G "small cell" sites less than 200 feet in height) so that members of the public can be informed of the location of wireless antennas near their homes and their children's schools?

³ See FCC Docket 13-84 on human exposure to RF scientific submissions
[https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings_name:\(%2213-84*%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings_name:(%2213-84*%22)))

⁴ International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), (2022). [Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G](#). Environ Health. Oct 18;21(1):92.
<https://ehjournal.biomedcentral.com/articles/10.1186/s12940-022-00900-9>

⁵ Countries with RF limits more stringent than the USA and strict oversight programs
<https://ehtrust.org/u-s-government-regulations-on-cell-tower-radiation/>

⁶ Decades ago, the US EPA and FCC measured RF levels in various cities across the country. However the last report on such measurements was issued [by the EPA in 1986](#) in a report entitled "Radiofrequency Radiation Environment Environmental Exposure Levels And RF Radiation Emitting

Sources" <http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000ECTO.txt>

Background on *Environmental Health Trust et al v. FCC (2021)*, U.S. Circuit Court of Appeals DC Circuit Judgment

In 2020, EHT and several other petitioners sued the FCC for its 2019 decision to retain its 1996 limits for human exposure to wireless radiation. The FCC's limits have remained almost entirely unchanged since 1996 and are designed only to protect against heating effects of short term exposures, not the biological impacts from long term exposure.⁷

In 2021, the U.S. Appeals Court, DC Circuit ruled in our case and found⁸ that the FCC had failed to take into account 11,000 pages of scientific evidence showing impacts of RF radiation on children, wildlife and the environment. In addition, the Court found that the FCC had not shown consideration of record evidence related to long-term impacts nor the ubiquity of wireless devices and other major technological changes since the 1996 guidelines (in use today) were first promulgated. In its 2021 order, the Court mandated the FCC explain how its limits were adequate in regards to the issues it had ignored stating the FCC must:

- “(i) provide a reasoned explanation for its decision to retain its testing procedures for determining whether cell phones and other portable electronic devices comply with its guidelines,
- (ii) address the impacts of RF radiation on children, the health implications of long-term exposure to RF radiation, the ubiquity of wireless devices, and other technological developments that have occurred since the Commission last updated its guidelines, and
- (iii) address the impacts of RF radiation on the environment.”

However, as of today, the FCC has not responded to the federal Court remand. Thus, the FCC's 1996 limits cannot be said to rest on an up to date scientific review.

⁷ Lin, J. C. (2023). Incongruities in recently revised radiofrequency exposure guidelines and standards. *Environmental Research*, 222, 115369; International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), (2022). Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G. *Environ Health*. Oct 18;21(1):92; Lopez I, Rivera M, Feliz N, Maestu C. (2022) It is mandatory to review environmental radiofrequency electromagnetic field measurement protocols and exposure regulations: An opinion article. *Front. Public Health*, 24 October; Davis, D., Birnbaum, L., Ben-Ishai, P., Taylor, H., Sears, M., Butler, T., & Scarato, T. (2023). Wireless technologies, non-ionizing electromagnetic fields and children: Identifying and reducing health risks. *Current Problems in Pediatric and Adolescent Health Care*, 53(2), 101374.

⁸ Final Court Decision EHT et. al v the FCC 8/13/2021
[https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/$file/20-1025-1910111.pdf)

An ever growing body of scientific evidence documents adverse effects from RF radiation at exposure levels well below FCC limits⁹ with research findings that include [cancer](#), the induction of [oxidative stress](#), [epigenetic effects](#), impacts to [neurotransmitters](#), [memory](#), [brain development](#) and damage to the [immune](#), [endocrine](#), [hematological](#) and [reproductive system](#). Further, studies have found impacts to [tree canopy](#), [plant growth](#), [pollinator health](#) and the [orientation, migration and breeding of wildlife](#).¹⁰ The science clearly indicates that wireless networks create harmful interference in humans as well as flora and fauna.

Further, as documented in [Attachment 2 on Regulatory Gaps](#), there are no federal agencies with health and science expertise engaged in activities related to reviewing the science on health effects of rising environmental RF levels from network infrastructure. Other countries have long been objectively studying these health effects and some have accordingly reduced RF exposure limits, often by 90%, while also deploying telecommunications networks and devices.¹¹

Finally, with respect to the draft appropriations bill being considered at today's hearing,¹² we draw your attention to section 524, which would prohibit the FCC from using funds implementing its "net neutrality" rule. While we take no position on net neutrality *per se*, the FCC declared that it will use net neutrality, and its reclassification of wireless data service as a telecommunications service, to preempt local zoning authority over the deployment of wireless facilities. The FCC is expanding federal preemption to proliferate wireless facilities despite not having completed a rulemaking to update its human exposure guidelines for radiofrequency radiation — in other words, it has not ensured the safety of radiofrequency exposure that will result from these facilities. As a number of commenters during the rulemaking pointed out, the FCC could have written its net neutrality order to achieve its net neutrality policy goals while preserving local zoning authority over wireless facilities.¹³

⁹ Belpomme, D., Hardell, L., Belyaev, I., Burgio, E., & Carpenter, D. O. (2018). [Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective](#). *Environmental Pollution*, 242, 643–658; McCredden, J. E., Cook, N., Weller, S., & Leach, V. (2022). [Wireless technology is an environmental stressor requiring new understanding and approaches in health care](#). *Frontiers in Public Health*, 10; Miller, A. B., Morgan, L. L., Udasin, I., & Davis, D. L. (2018). [Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields \(Monograph 102\)](#). *Environmental Research*, 167, 673–683.

¹⁰ Levitt, B. B., Lai, H. C., & Manville, A. M. (2022b). [Effects of non-ionizing electromagnetic fields on flora and fauna. Part 2 impacts: How species interact with natural and man-made EMF](#). *Reviews on Environmental Health*, 37(3), 327–406; Thill A, Cammaerts MC, Balmori A. [Biological effects of electromagnetic fields on insects: a systematic review and meta-analysis](#). *Rev Environ Health*. 2023 Nov 23

¹¹ *Spectrum Management & Human RF Exposure – 2023 Recap*, National Spectrum Management Association(NSMA) 38th Annual Conference, National Press Club, Washington, DC, [NSMA Presentations 2023 - National Spectrum Management Association : National Spectrum Management Association](#)

¹²

<https://docs.house.gov/meetings/AP/AP23/20240605/117405/BILLS-118-SC-AP-FY2025-FServices-FY25FSGGSubcommitteeMark.pdf>

¹³ In its [final rule](#), the FCC readily acknowledged and defended expanded wireless preemption (for example see paragraphs 74, 76). NATOA [filed comments](#) supporting net neutrality but opposing local preemption over wireless facilities, and urging the FCC to avoid expanded preemption, writing: "NATOA urges the Commission to forbear the application of Sections 253 and 332(c)". National League of Cities [filed comments](#) opposing local preemption and urging forbearance. BB&K [filed comments](#) in the docket on behalf of a local governments coalition, opposing local preemption. (BB&K has acted as counsel over the years to a number of coalitions of local governments bringing judicial

How can the FCC allow such wireless proliferation without ensuring its exposure guidelines and regulations for radiofrequency radiation are adequately protective?

See attachments for details on each topic below.

[ATTACHMENT 1: EHT Recommendations on spectrum policy](#)

[ATTACHMENT 2: Today's Regulatory Gap Regarding Radiofrequency Bioeffects](#)

[ATTACHMENT 3: Radio-frequency Radiation Impacts on the Environment](#)

[ATTACHMENT 4: Radio-frequency Radiation Impacts on Human Health](#)

[ATTACHMENT 5: Legal and Liability Issues of Wireless](#)

[ATTACHMENT 6: Expert Recommendations on Technology Safety](#)

[ATTACHMENT 7: Factsheet on Environmental Impacts of Satellite Proliferation](#)

We are happy to provide the Committee with more information and resources.

Sincerely,

Theodora Scarato
Environmental Health Trust
Theodora.Scarato@ehtrust.org

Rola Masri
Director of Government Outreach
Environmental Health Trust
RolaMasri@EHTrust.org

cc: Kent Chamberlin, President, EHT

challenges to FCC preemption.) Wired Broadband et al. [filed comments](#) and [reply comments](#), also urging the same forbearance.

ATTACHMENT 1: EHT Recommendations on Spectrum Policy

We urge Congress to alter its approach to spectrum management:

- to ensure long-term global leadership in multiple objectively measurable categories;
- to transform the wireless industry to compete on safety, much as the auto industry did starting in the 1970s;
- to oppose S.3909, S.4010, and HR 3565; and
- **not** to make more spectrum available for commercial use until it has addressed the issues that we raise in this letter.

Increased commercial utilization of spectrum would result in a massive proliferation of additional antennas across the country and increase the density of radiofrequency radiation in the environment without objectively understanding the costs. The types of layered, and/or shared spectrum use described at the March 21, 2024 Senate Commerce Committee hearing will result in increased radiofrequency densification. People and the environment would inevitably be exposed to much higher levels of radiation across the country. In addition, the antennas triggered by the availability of additional spectrum can be largely rolled out across the country while preempting local zoning authority, under what is known as “Section 6409” preemption.¹⁴ A number of municipal organizations have opposed preemption of local authority over the placement of wireless facilities.¹⁵

EHT shares the goal of ensuring that the future of technology in the US is as robust, efficient, and sustainable as possible. We submit that responsible spectrum management considers not only the impact of spectrum decisions on networks and devices but also on the environment and all life forms, including humans, animals, plants, and microbes.

With that in mind we have prepared the following recommendations on spectrum policy. In this document, “**spectrum utilization decisions**” refers to any action by Congress to allocate, reallocate, or alter the utilization of spectrum, whether for non-federal use, shared commercial/federal use, or federal use.

¹⁴ Previous C-band spectrum allocated to commercial use has triggered a wave of antenna deployments across the country. 47 USC §1455 is known as “Section 6409” of the Middle Class Tax Relief and Job Creation Act of 2012.

¹⁵ National Association of Telecommunications Officers and Advisors (NATOA), together with the National League of Cities, National Association of Counties and US Conference of Mayors, recently wrote that “we oppose heavy-handed federal overreach into local land use, permitting, and franchise negotiation decisions.”

https://assets.noviams.com/novi-file-uploads/natoa/HR3557_Local_Government_Letter_20230928.pdf

Recommendation #1: Congress should not make any spectrum utilization decisions that increase RF exposure until the FCC complies with the U.S. Court of Appeals DC Circuit *remand* mandate issued in August 2021 in *EHT et al. v. FCC*, to address record evidence including long term health effects, children's vulnerability and environmental impacts of RF exposure.

Neither FCC, nor the Food and Drug Administration (FDA), have yet to address their responsibilities to ensure public health and environmental protection. The FCC has not responded to the August 13, 2021, U.S. Court of Appeals for the District of Columbia Circuit *ORDER* in [Environmental Health Trust et al. v. FCC, 2021](#) wherein the court ordered the FCC to “address the impacts of RF radiation on children, the health implications of long-term exposure to RF radiation, the ubiquity of wireless devices, and other technological developments that have occurred since the Commission last updated its guidelines, and...the impacts of RF radiation on the environment.” The Court also ordered the FCC to “provide a reasoned explanation for its decision to retain its testing procedures for determining whether cell phones and other portable electronic devices comply with its guidelines.”

No federal agency with health or science expertise has evaluated the comprehensive body of scientific research on the human health and environmental impacts of wireless radiation. As stated by the EPA, FDA, and Department of Interior, current FCC guidelines address heating effects of short term exposures only¹⁶ (see [Attachment 2](#) for more details). Current FCC human exposure guidelines are unchanged since 1996 and were based on now antiquated limits developed by [ANSI/IEEE C95.1-1992](#) and [NCRP's 1986 Report](#). These limits identified the level of adverse effects [based on studies](#) which exposed a few monkeys and rats to RF radiation for less than one hour, more than 40 years ago. They do not consider the biological effects of non-thermal or long-term low-level exposures of radiofrequency radiation documented in the scientific literature.¹⁷ Current guidelines also do not consider the documented effects of modulations and pulsation on living cells. As the DC Circuit recognized, these antiquated studies are a far cry from properly assessing the health and

¹⁶ Guidelines of the FCC, ICNIRP and IEEE are based on protection for short term heating, not for long term exposures. In 1999, the FDA stated in its [Nomination](#) to the National Toxicology Program to study wireless radiation that, “As noted above, the existing exposure guidelines are based entirely on protection from acute injury from thermal effects of RF exposure, and may not be protective against any non-thermal effects of chronic exposures.” FDA Nomination from FDA’s Center for Device and Radiological Health Radio Frequency Radiation Emissions of Wireless Communication Devices (CDRH) May 19, 1999

https://ntp.niehs.nih.gov/sites/default/files/ntp/htdocs/chem_background/exsumpdf/wireless051999_508.pdf; EPA’s Norbert Hankin [clarified that the FCC’s 1996 RF limits do not protect against all effects](#) stating that, “federal health and safety agencies have not yet developed policies concerning possible risk from long-term, nonthermal exposures” in a 2002 letter <https://ehtrust.org/wp-content/uploads/4c0f61dc30c3d6bb27d90f53a57c616e.pdf> [George Brozowski Regional Health Physicist of the EPA’s 2014](#) letter stated, “The standards are intended to prevent adverse health effects that may be associated with tissue heating, but are not intended to address low intensity (nonthermal), longterm (chronic) exposures. Investigation as to whether there may be effects from exposures too low to cause heating is continuing.” The [US Department of the Interior](#) stated in a 2014 letter to the NTIA that, “the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today.”

¹⁷ International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), (2022). [Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G](#). Environ Health. Oct 18;21(1):92.

environmental impacts of modern technology and ubiquitous wireless devices.

Recommendation #2: Congress should require prior to any spectrum utilization decisions that will transform the industry to compete on safety, and thus increase human and environmental RF exposure, including and not limited to: (i) best-practice premarket testing for long term safety, (ii) that devices and networks pass such safety testing, and (iii) quarterly post-market health and environmental surveillance along with monitoring and compliance oversight. Congress should require that federal agency spectrum utilization decisions be treated as a major federal action requiring an environmental impact statement under NEPA.

NEPA Section 106 states: “An agency shall issue an environmental impact statement with respect to a proposed agency action requiring an environmental document that has a reasonably foreseeable significant effect on the quality of the human environment.”¹⁸

The attachments below document the significant body of scientific evidence indicating adverse effects to humans and the environment from radiofrequency exposure resulting from spectrum allocation. As set out below, the FCC has consistently abrogated its responsibilities under NEPA.

Further, because of their unique effects, each frequency and modulation should be studied pre and post market for impacts on the environment and human health, before deployment. We recommend quantitative and qualitative risk assessments, including individual and cumulative effects, of spectrum utilization decisions. Such assessments should determine, not only the effects of the frequencies at different power levels but also the effects of the polarized wave forms when they are modulated, pulsed, and otherwise altered to fit the technological needs of non-federal entities.¹⁹ Premarket safety testing of long term exposure to altered frequencies on living things are essential to ensure technology is safe for people and the natural environment.

RF exposures should be monitored nationwide to understand current exposure levels as well as trends over time. A transparent, robust federal RF compliance program is needed to ensure that industry compliance testing is done correctly and that emissions are compliant. The public needs an oversight and enforcement program to investigate, and promptly address non-compliance with fines and mitigation.

¹⁸ 42 USC 4336

<https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section4336&num=0&edition=prelim>

¹⁹ Barnes, F., & Freeman, J. E. R. (2022). [Some thoughts on the possible health effects of electric and magnetic fields and exposure guidelines](#). *Frontiers in Public Health*, 10; Belyaev, I. (2010). [Dependence of non-thermal biological effects of microwaves on physical and biological variables: Implications for reproducibility and safety standards](#). *European Journal of Oncology Library*, 5, 187–218; Belyaev, I. Y., & Grigoriev, Y. G. (2007). [Problems in assessment of risks from exposures to microwaves of mobile communication](#). *Radiatsionnaia Biologiia, Radioecologia*, 47(6), 727–732; Panagopoulos, D. J., Johansson, O., & Carlo, G. L. (2015). [Real versus Simulated Mobile Phone Exposures in Experimental Studies](#). *BioMed Research International*, 2015, 607053; Panagopoulos, D. J., Johansson, O., & Carlo, G. L. (2015). [Polarization: A Key Difference between Man-made and Natural Electromagnetic Fields, in regard to Biological Activity](#). *Scientific Reports*, 5, 14914.; Lai, H., & Levitt, B. B. (2022). [The roles of intensity, exposure duration, and modulation on the biological effects of radiofrequency radiation and exposure guidelines](#). *Electromagnetic Biology and Medicine*, 41(2), 230–255; Panagopoulos, D. J. (Ed.). (2022). [Electromagnetic Fields of Wireless Communications: Biological and Health Effects](#) (1st ed.). CRC Press.; Panagopoulos, D. J., Karabarbounis, A., Yakymenko, I., & Chrousos, G. P. (2021). [Human-made electromagnetic fields: Ion forced-oscillation and voltage-gated ion channel dysfunction, oxidative stress and DNA damage \(Review\)](#). *International Journal of Oncology*, 59(5), 92.

Current industry-generated or commissioned pre-construction reports and post-construction testing are largely inadequate, if not inaccurate, in large part because the modeling protocols and programs have not been validated for real world accuracy. There are no up-to-date, minimum standards for preparing RF compliance reports, studies and evaluations nor quality control.

As of March 2024, FCC has not issued updated guidance on how to comply with RF rules, which includes newly licensed frequencies and services, since 1997. The existing guidance, *Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (FCC OET 65 (1997))*,²⁰ which provides assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) under FCC rules, is outdated. Independent inspectors, informed by up-to-date guidance, should be required to carry out on-the-ground measurements post antenna deployments to verify compliance with human exposure limits.

Field compliance reports taking actual measurements can reach different conclusions depending on, for example, the number of measurements, location of measurements in relation to the antennas and the length of measurement in each location. Furthermore, reports are inconsistent regarding the inclusion of peak measurements versus averaged measurements, and the inclusion of actual values versus percentage of FCC limits.

Federal agencies with health and safety expertise should conduct ongoing research reviews, hazard evaluations, and quantitative risk assessments to ensure FCC limits are adequately protective. However, none of these needed regulatory safeguards are in place at this time.

Recommendation #3: United States Spectrum Policy should encourage wireless networks and devices to compete on safety, and thus ensure the public and environment is protected from harmful radio frequency interference. One example is the automobile industry which last century initially resisted competing on safety, and then embraced it and now regularly touts products that achieve high National Highway Traffic Safety Administration scores. See generally, [NHTSA | National Highway Traffic Safety Administration](#)

The Communications Act of 1934 created the FCC “for the purpose of promoting safety of life and property.”²¹

Similarly, NTIA shall, under its authorizing statute (47 USC 901(c)²²) seek policies:

- a) promoting the benefits of technological development for **all users** in the United States;
- b) fostering **national safety**;
- c) fostering the use of telecommunications resources in a manner that benefits **the public interest**;

²⁰ https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf

²¹ Section 1 (47 USC 151)

<https://www.govinfo.gov/content/pkg/COMPS-936/pdf/COMPS-936.pdf>

²² 47 USC 901

<http://uscode.house.gov/view.xhtml?path=/prelim@title47/chapter8&edition=prelim>

Federal spectrum policy should seek to bolster coexistence not only among different spectrum users, devices, and networks, but also between technology on the one hand and all life forms on the other hand, including humans, plants, animals, and microbes. Spectrum research should include how different spectrum management techniques, and different wavelengths, (for example, pulsed, modulated, sawtooth, and other waveforms, as well as multiplexing technologies) differentially affect different lifeforms. And federal spectrum activities should include education for the public and state and local decision-makers on the impacts of RF exposure on humans, especially children, and ways to mitigate these impacts.²³ Electromagnetic related disability is recognized by the US government and multiple other entities.²⁴ In addition, certain segments of the population are more vulnerable to radiofrequency impacts, including children.²⁵

Many countries lack the environmental standards that we have in the United States, Europe, and other developed countries. It may be cheaper to operate a factory in a country where the factory can dump chemicals into a river without being subject to government limits. However, that is not the approach we have in the US. A recurring topic at the March 21 hearing focused on whether other countries are more aggressively making spectrum available for commercial use. However, because other countries are more aggressively irradiating their own population and environment, does not mean that the United States needs to follow suit. Neither Congress nor any government agency has considered or attempted to quantify the cost to the economy in terms of morbidity, mortality, and disability resulting from the range of health conditions linked to radiofrequency exposure. The United States is already having trouble meeting its recruiting targets for the armed services.²⁶ The national security impacts of spectrum policy should include assessing the impact of such decisions on force readiness and recruitment targets.

As an example, the United States required safety features in vehicles, such as seatbelts, headrests, anti-lock brakes, and airbags, years before other countries did so. Over time, automakers have come to compete on safety features. In transportation policy, we have long recognized that vehicles emit PM2.5 particulate matter. Transportation policymakers need to consider the impact of their decisions not only on travel times and road capacity, but also on the PM2.5 emissions (and the health and environmental impacts thereof) that result from different policy decisions.

²³ Davis, D., Birnbaum, L., Ben-Ishai, P., Taylor, H., Sears, M., Butler, T., & Scarato, T. (2023). [Wireless technologies, non-ionizing electromagnetic fields and children: Identifying and reducing health risks](#). *Current Problems in Pediatric and Adolescent Health Care*, 53(2), 101374; Clegg, F. M., Sears, M., Friesen, M., Scarato, T., Metzinger, R., Russell, C., Stadtner, A., & Miller, A. B. (2020). [Building science and radiofrequency radiation: What makes smart and healthy buildings](#). *Building and Environment*, 176, 106324.

²⁴ <https://ehtrust.org/resources-on-electromagnetic-sensitivity-and-accommodations/>

²⁵ Davis, D., Birnbaum, L., Ben-Ishai, P., Taylor, H., Sears, M., Butler, T., & Scarato, T. (2023). [Wireless technologies, non-ionizing electromagnetic fields and children: Identifying and reducing health risks](#). *Current Problems in Pediatric and Adolescent Health Care*, 53(2), 101374; Miller, A. B., Sears, M. E., Morgan, L. L., Davis, D. L., Hardell, L., Oremus, M., & Soskolne, C. L. (2019). [Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices](#). *Frontiers in Public Health*, 7; Redmayne, M., & Johansson, O. (2015). [Radiofrequency exposure in young and old: Different sensitivities in light of age-relevant natural differences](#). *Reviews on Environmental Health*, 30(4), 323–335; Sage, C., & Burgio, E. (2018). [Electromagnetic Fields, Pulsed Radiofrequency Radiation, and Epigenetics: How Wireless Technologies May Affect Childhood Development](#). *Child Development*, 89(1), 129–136; McCredden, J. E., Cook, N., Weller, S., & Leach, V. (2022). [Wireless technology is an environmental stressor requiring new understanding and approaches in health care](#). *Frontiers in Public Health*, 10.

²⁶ “The all-volunteer force is dying. Here’s how to save it” By Mark Esper, former Secretary of Defense. Washington Post, 9/21/23.

<https://www.washingtonpost.com/opinions/2023/09/21/military-all-volunteer-force-mark-esper/>

We ask Congress to consider how it can encourage the wireless industry to compete on safety. For example, Wi-Fi routers do not need to output the same amount of power while users are sleeping, as during heavy usage. Reducing such unnecessary emissions is good for public safety and energy conservation.

Recommendation #4: Spectrum should be allocated in accordance with the entire public interest, not just certain narrow corporate or agency priorities.

As spectrum is a finite resource with risks to health and the environment that carry significant negative externalities, it is essential to make spectrum recommendations in accordance with the public interest. Based on past history, for example with C-band deployment, when spectrum is reallocated from federal users to commercial users, the density of antennas and of aggregate radiofrequency emissions throughout the United States is dramatically increased.²⁷ At the same time, these reallocations may incur substantial cost to these federal users, and therefore ultimately to taxpayers and the public at large.

It may be that the optimal economic outcome for the United States is for federal users to retain spectrum, while commercial users increasingly rely on wired, fiber-optic broadband. For example, the Congressional Research Service reported earlier this year that for the Department of Defense to relinquish just 350 MHz of additional C-band would take 20 years and cost “hundreds of billions of dollars”²⁸ – which is approximately \$1 billion of cost to federal users to relinquish 1 MHz of spectrum. S.3909 proposes to reallocate 2500 MHz. Assuming a similar level of \$1 billion of cost to relinquish 1 MHz, reallocating that amount of spectrum could incur nearly \$2.5 trillion of taxpayer costs – without taking into account the negative externalities incurred by commercial users. Congress should consider whether this is an efficient allocation of resources in our economy. In addition, the BEAD deployment will be complete long before spectrum is reallocated from federal users. As a result, all or nearly all Americans by that point will have access to high-speed fiber connectivity at home, work, school, community centers, and other locations – which is and will be significantly faster than that which is provided over wireless

Fiber broadband surpasses wireless data in performance, speeds, reliability, latency, cybersecurity, privacy, scalability and has less impact on health and the environment. It would be a disservice to the American people for the government to continue to release frequencies to serve wireless broadband that is no longer viable for current and future needs.

The poor performance metrics of wireless broadband costs our states billions of dollars when residents and businesses are held up by unreliable service, low speeds, and issues with cybersecurity²⁹ and privacy. While wireless upload speeds unreliably peak at 50Mbps, fiber upload and download speeds start at 1000 Mbps and have the capacity to upgrade into Terabyte speeds. Wireless infrastructure fails during inclement weather or when the path of the signal is obstructed. Allowing more wireless broadband investments will perpetuate the

²⁷ Under “Section 6409” (47 USC 1455(a)), existing wireless facilities can be expanded with almost unlimited additional antennas. After C-band became available, a wave antenna deployments occurred under 6409, while claiming preemption over state and local government.

[https://uscode.house.gov/view.xhtml?req=\(title:47%20section:1455%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:47%20section:1455%20edition:prelim))

²⁸ <https://sgp.fas.org/crs/misc/IF12351.pdf>

²⁹ <https://www.sdxcentral.com/articles/news/att-sounds-alarm-on-5g-security/2019/11/>

digital divide, as bandwidth and latency demands increase.³⁰

Wireless broadband presents a major cybersecurity risk. Individuals, institutions and businesses have suffered great losses as wireless signals are easily accessible to hackers. Fiber and current cable infrastructure can reliably offer superior service without these challenges.

Wireless broadband is also an energy guzzler. 5G base stations are expected to consume roughly 3 times the power of 4G base stations and more 5G base stations are required to cover the same area.³¹ Energy consumption is expected to increase by 61 times from 2020 to 2030 with 5G.³² One study done by the Federal Environment Ministry of Germany and the German Environment Agency found that video transmission through fiber optics is nearly 50 times more energy efficient than wireless.³³ Research on whole network level assessments of the operational energy use implications of 5G warns that “Energy-intensive user practices contribute to ever-growing levels of data traffic, and counteract³⁴ the energy-saving potential of 5G efficiency improvements.”³⁵

In addition, technologies that are fixed in place like smart meters need not communicate wirelessly when they can be better served with a wired connection. We urge Congress not to allow spectrum allocations for stationary technologies, including fixed wireless and satellite, that can be served with wired connections.

As BEAD funding grants accelerate the build out of fiber networks, wireless broadband will be less needed. We urge Congress to consider performance, speeds, reliability, latency, cybersecurity, privacy, scalability and impacts on health and the environment when making spectrum recommendations, especially when another technology is capable of better meeting the needs.

Recommendation #5: Broaden the range of stakeholders from whom it solicits input on spectrum policy to include public health, environmental health, and disability advocacy organizations, as well as the residential and commercial real estate industry, as RF Exposure measurements can impact real estate values and liabilities.³⁶

Broadening the definition of stakeholders to include a wider range of groups including public health, environmental health organizations such as Environmental Health Trust, disability advocacy, as well as community groups and organizations. More outreach needs to be done with the American public so they understand this issue and can participate in the process.

³⁰ 5G DEPLOYMENT: FCC Needs Comprehensive Strategic Planning to Guide Its Efforts, GAO, June 2020
<https://www.gao.gov/assets/gao-20-468.pdf>

³¹ <https://spectrum.ieee.org/5gs-waveform-is-a-battery-vampire>

³² https://www.datacenter-forum.com/datacenter-forum/5g-will-prompt-energy-consumption-to-grow-by-staggering-160-in-10-years?fbclid=IwAR0zO_dGvwT_phdacXuhOkllYOm_p0u95nJAac1toWs4zGUNJnotrvRki7l

³³ <https://www.umweltbundesamt.de/en/press/pressinformation/video-streaming-data-transmission-technology>

³⁴ https://www.etsi.org/images/files/ETSIWhitePapers/WP_47_GFDI.pdf

³⁵ Williams, Laurence and Sovacool, Benjamin K. and Foxon, Timothy J., The energy use implications of 5G: Reviewing whole network operational energy, embodied energy, and indirect effects (January 13, 2022). *Renewable and Sustainable Energy Reviews* 157 (2022) 112033, Available at SSRN: <https://ssrn.com/abstract=4008530>

³⁶ Affuso, E., Reid Cummings, J. & Le, H. Wireless Towers and Home Values: An Alternative Valuation Approach Using a Spatial Econometric Analysis. *J Real Estate Finan Econ* 56, 653–676 (2018).
<https://doi.org/10.1007/s11146-017-9600-9>

ATTACHMENT 2: Today's Regulatory Gap Regarding Radiofrequency Bioeffects

Although the public and elected officials assume that federal agencies are engaged in radiofrequency oversight activities to ensure public health and environmental protection, this is inaccurate. FCC RF exposure limits are guidelines only, not federally developed safety standards.³⁷ Such standards are typically promulgated by agencies reviewing the totality of scientific evidence, performing risk analysis, and identifying the levels at which various adverse effects occur, as a basis for toxicant exposure limit that ensures adequate public protection. A review of federal agency involvement indicates scant research and oversight activities along with serious regulatory gaps including but not limited to:

Issues related to the FCC's 1996 human exposure guidelines :

- RF guidelines were designed for humans, not animals or plants, and only for effects of high intensity short term acute exposures. The limits were not designed to protect against effects of long term exposure.
- There is no periodic or ongoing, transparent evaluation of current scientific research to ensure FCC limits are adequate (no hazard evaluation, quantitative risk assessment of the totality of science, including impacts to brain development, reproduction or immune system) by any federal agency with health and safety expertise.

Issues related to agency authority.

- There is no agency with authority regarding impacts of ambient environmental exposures from the RF emissions of cell towers and base station antennas (including 4G, 5G) which is engaged in any scientific activities. In the case of cell phones, FDA has shared authority with FCC, although FDA has shown only limited activity.
- There is no agency with authority nor activities related to impacts of RF exposures to wildlife, animals and the natural environment (plants and trees.)

Issues related to bioeffects research and safety testing.

- There is no regulatory process for premarket safety testing (as currently done with drugs) to ensure new wireless communication frequencies, antenna systems and technologies are safe.
- There is no federal research program on biological impacts, except for a small animal study by the National Toxicology Program.³⁸

³⁷ The [FCC Website Policy on Human Exposure to Radiofrequency Electromagnetic Fields states](#), "At the present time there is no federally-mandated radio frequency (RF) exposure standard <https://www.fcc.gov/general/fcc-policy-human-exposure>

³⁸ NTP announced in January 2024 that "No additional RFR studies are planned."

- There is no agency carrying out pre-or post-market research activities related to evaluating the health and environmental impacts of new technologies (i.e, new modulations such as 5G, or higher frequencies to be used in future technologies and/or antenna systems such as beamforming etc.).
- There is no agency carrying out activities related to evaluating the health and environmental impacts of 5G modulations nor for new technologies (i.e, that will use higher frequencies as well as new beamforming antenna systems, modulations and pulsation).
- There is no agency with activities related to impacts of RF exposures to wildlife, animals and the natural environment (plants and trees.)

Issues related to cell tower oversight:

- Currently there is no federal registry for all wireless facility sites, cell towers, or small wireless facilities.
- The US has no measuring, monitoring or mapping of environmental RF levels.
- There is no federal oversight and enforcement program in place to ensure wireless facilities emissions are within FCC guidelines.
- There is no agency carrying out activities related to evaluating the health and environmental impacts of 5G modulations nor for new technologies (i.e, that will use higher frequencies as well as new beamforming antenna systems, modulations and pulsation).

The Environmental Protection Agency (EPA) and RF Guideline Background

FCC RF exposure limits are guidelines only, as they are not federally developed safety standards³⁹ whereby agencies reviewed the totality of scientific evidence, performed risk analysis and identified a level of adverse effect to base a limit that would ensure adequate public protection. Such a process never happened.

The EPA was actively engaged in research to develop proper federal safety standards for RF that would protect humans from both thermal and non-thermal impacts, as it had been tasked to do by several federal agencies. However, just as the EPA was poised to release its RF limit recommendations in 1995⁴⁰ the EPA

<https://ehtrust.org/statement-by-devra-davis-phd-mph-on-the-u-s-government-national-toxicology-program-ceasing-research-on-cell-phone-radiation/>

³⁹ The [FCC Website Policy on Human Exposure to Radiofrequency Electromagnetic Fields](https://www.fcc.gov/general/fcc-policy-human-exposure) states, “At the present time there is no federally-mandated radio frequency (RF) exposure standard <https://www.fcc.gov/general/fcc-policy-human-exposure>

⁴⁰ In 1995 the EPA had briefed both the FCC and the National Telecommunications and Information Administration regarding its two Phases of activities related to the development of RF exposure safety standards. Phase 1 would address only short-term thermal impacts of RF radiation but “does not include modulation, chronic exposure or non thermal [heating] impacts.” Phase 2 would address modulated and nonthermal exposures and result in the final guidelines. See [Memorandum from Robert F. Cleveland, Office of Engineering and Technology to FCC Secretary, Ex Parte Presentation by U.S. Environmental Protection Agency \(March 22, 1995\)](#)

Three months later, EPA informed the FCC that its final RF guidelines “are essentially complete” and entering the review phase which would include a review by the Radiofrequency Interagency Work Group as well as stakeholders. [Letter from E. Ramona Trovata, EPA, Office of Radiation and Indoor Air, to Richard M. Smith, Chief, FCC, Office of Engineering and Technology \(June 19, 1995\)](#)

was defunded from all such activities. The FCC then promulgated limits based on recommendations developed by industry/military connected groups ([ANSI/IEEE C95.1-1992](#) and [NCRP's 1986 Report](#)). At that time, the EPA specifically recommended⁴¹ that an “updated, comprehensive review of the biological effects” be initiated as the IEEE and NCRP recommendations were based on pre-1986 studies.⁴²

Although the FCC’s [2013 inquiry stated](#), “Since the Commission is not a health and safety agency, we defer to other organizations and agencies with respect to interpreting the biological research necessary to determine what levels are safe,” there has been no updated federal review since 1996.

Yet, in 2019, when the Commission issued its decision not to update its exposure limits, it stated that it “took into account” views from other expert agencies and standard-setting organizations. The FCC interpreted the silence of federal agencies to mean agreement with the 1996 guidelines, stating in its [11/9/2020 brief](#) that, “no other agency advocated tightening the limits” and “the agency reasonably concluded that the weight of the scientific and health evidence, and particularly the judgment of federal agencies expert in health matters, demonstrated that no changes were warranted.” As mentioned earlier, the DC Circuit, in, *EHT et al. v. FCC*, rejected the FCC’s conclusion as “arbitrary and capricious” and in violation of the Administrative Procedures Act.

In July 8, 2020, Lee Ann B. Veal, Director of the EPA Radiation Protection Division Office of Radiation and Indoor Air wrote⁴³ Theodora Scarato, EHT Executive Director, that “EPA’s last review was in the 1984 document Biological Effects of Radiofrequency Radiation⁴⁴. The EPA does not currently have a funded mandate for radiofrequency matters.”

Federal agencies have not shown a review of the totality of the science (including impacts to the nervous, reproductive and immune systems of humans and animals) to issue such a “judgment.” The reality is that federal agencies are not engaged in researching and evaluating the numerous biological effects of RF to humans, flora and fauna. That is why federal agencies such as the EPA did not submit meaningful input to the FCC’s Inquiry. They have not been funded or directed to provide a determination or judgment.

The Federal Communications Commission (FCC)

The FCC has minimal to non-existent regulatory activities to ensure RF compliance for wireless networks. In several other countries, government agencies monitor RF levels regularly, review industry reports, measure a

⁴¹ [EPA Submission to ET Docket 93-62](#) "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation state, “The FCC should consider requesting the NCRP to revise its 1986 report to provide an updated, comprehensive review of the biological effects on RF radiation and recommendations for exposure criteria.”

⁴² As the EPA stated to the FCC, “The 1992 ANSI/IEEE standard is based on literature published before 1986, except for a few papers on RF shock and burn. The cut-off date for the literature review supporting the NCRP recommendations is 1982.”

⁴³ Letter from Lee Ann B. Veal, Director of the Radiation Protection Division, U.S. Environmental Protection Agency to Theodora Scarato, Executive Director, Environmental Health Trust, (July 8, 2020)<https://ehtrust.org/wp-content/uploads/EPA-Director-Letter-on-EMFs-to-Theodora-Scarato-July-8-2020.pdf>

⁴⁴ U.S. Environmental Protection Agency, 1984 Report Biological Effects of Electromagnetic Radiation <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=300065H1.TXT>

certain percentage of sites for compliance every year, penalize operators for non compliance, and transparently post RF levels for the public.⁴⁵ Not in the USA.

Environmental Health Trust gave a brief presentation on the policies of other countries at the [National Spectrum Managers Association 2023 Annual Spectrum Management Conference](#).⁴⁶

According to the FCC, “The FCC does not have a comprehensive, transmitter-specific database for all of the services it regulates. ... In some services, licenses are allowed to utilize additional transmitters or to increase power without notifying the FCC. Other services are licensed by geographic area, such that the FCC has no knowledge concerning the actual number or location of transmitters within that geographic area.”⁴⁷ With no comprehensive transmitter-specific database for all the services regulated by the FCC, and the ability for licenses to utilize additional transmitters and increase power without notifying the FCC, how are radiofrequency exposure levels monitored to remain within FCC guidelines?

Furthermore, according to the FCC, “The FCC does not have the resources or the personnel to routinely monitor the exposure levels at all of the thousands of transmitters that are subject to FCC jurisdiction. ... In addition, the FCC does not routinely perform RF exposure investigations unless there is a reasonable expectation that the FCC exposure limits may be exceeded.”⁴⁸ With no routine monitoring of RF exposure levels, people and the environment are at risk of exposures to RF levels that exceed current FCC guidelines.

The FCC is not ensuring that RF exposure levels are compliant as it has no monitoring or oversight program in place. The FCC has stated that, “There have been a few situations around the country where RF levels in publicly accessible areas have been found to be higher than those recommended in applicable safety standards.”⁴⁹ A 2014 investigation by the Wall Street Journal “[Cellphone Boom Spurs Antenna-Safety](#)

⁴⁵ Examples of governments with a national program to monitor environmental levels of radiofrequency and/or measure cell tower emissions for compliance with government exposure limits include: [France](#), [Australia](#), [Austria](#), [Brussels](#), [Belgium](#), [Switzerland](#), [India](#), [Israel](#), [United Kingdom](#), [Thailand](#), [Croatia](#), [Lithuania](#), [Spain](#), [Hungary](#), [Italy](#), [Netherlands](#), [Greece](#), [Turkey](#), [French Polynesia](#), [Senegal](#), [Monaco](#), [Bhutan](#), [Gibraltar](#), [Bulgaria](#), [Tunisia](#), [China](#), [Bahrain](#), [Norway](#), [Brazil](#), [Malta](#), [Ireland](#), [Romania](#) ([France even has 5G monitoring stations](#), Australia Telco posts RF info at [ACMA EME Checker](#) . Countries such France, Switzerland, Greece, and Belgium now have robust RF monitoring programs with RF measurements posted online in an easy to understand website that members of the general public can easily navigate, such as a map where you simply click on antenna/tower locations to see the latest measurements and how they compare to the country’s limits. Greece’s [National Observatory of Electromagnetic Fields](#) is operated by the Greek Atomic Energy Commission with 500 sensors since 2015. In India, telecommunications companies are to self-certify compliance at: 1. Launch, 2. With any modification/change and 3. On a biennial basis. In addition the country also states they audit 5% to 10% of sites annually on a random basis and all reports are posted on their EMF dedicated website.

<https://tarangsanchar.gov.in/EMFPortal/DoT> Penalties are Rs. 10 lakh per BTS per incidence. For the year 2022, they reported 320 of the 11,61,281 base stations they tested had emissions exceeding regulatory limits resulting in penalties for the telecom service providers. India’s RF public exposure limits are set at 10% of ICNIRP levels.

⁴⁶ See Conference site at <https://www.nsma.org/conferences/nsma-presentations-2023/> Video of Theodora Scarato at https://youtu.be/NNJUT-ZOcqE?si=GtL9k_IeEzuEmiUK&t=1597

⁴⁷ FCC RF Safety FAQ

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>

⁴⁸ FCC RF Safety FAQ

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>

⁴⁹

FCC RF Safety FAQ

[Worries⁵⁰](#) found “one in 10 sites violates the rules, according to six engineers who examined more than 5,000 sites during safety audits for carriers and local municipalities.” Since then, FCC rules that have mandated automatic approvals for adding antennas at existing cell sites and “streamlined” placement of new 5G/4G facilities by preempting state and local authority, have resulted in massive antenna proliferation nationwide.

Studies have found that environmental RF levels generated from RF emissions of cell towers, base station network antennas, and other wireless systems have significantly increased over the last few decades, with higher levels in urban areas and in areas of closer proximity to wireless network antennas, especially in locations within the main beams of the antennas.⁵¹ As an example, a 2018 multi-country study found ambient RF measurements in Los Angeles, California now 70 times higher than levels measured in the City in the late ‘70s, as part of a twelve-city study by the FCC and EPA.⁵²

The FCC has never done an environmental impact statement on the individual or cumulative impacts of its spectrum auctions, which have raised \$233 billion to date, nor on the allocation of these proceeds to various programs to deploy wireless networks. The FCC has not considered those funding decisions under NEPA, and so have not considered them to be major federal action. In 1986, the FCC categorically excluded most of its actions from NEPA review.⁵³

The FCC relies on licensees to measure exposure levels and prepare environmental assessments (EA) if needed and self-report any exceedances or potential exceedances.⁵⁴ It is indisputable that NEPA is a federal obligation yet the FCC has delegated to the licensees and the carriers the determination of whether a

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>

⁵⁰ “It’s like having a speed limit and no police,” said Marvin Wessel, an engineer who has audited more than 3,000 sites and found one in 10 out of compliance. Cellphone Boom Spurs Antenna-Safety Worries Many Sites Violate Rules Aimed at Protecting Workers From Excessive Radio-Frequency Radiation

https://www.wsj.com/articles/cellphone-boom-spurs-antenna-safety-worries-1412293055?mod=WSJ_hpp_MIDDLE_Video_second

⁵¹ Brown, R. (2022). [Assessment of radiofrequency radiation intensity on 35 Main Streets throughout Pennsylvania, USA during the fall of 2021](#). *American Journal of Multidisciplinary Research & Review*. 1(4). 8-20; Baltrėnas, P.,

Buckus, R., & Vasarevičius, S. (2012). [Research and evaluation of the intensity parameters of electromagnetic fields produced by mobile communication antennas](#). *Journal of Environmental Engineering and Landscape Management*, 20(4), 273–284; Bhatt, C. R., Redmayne, M., Billah, B., Abramson, M. J., & Benke, G. (2017).

[Radiofrequency-electromagnetic field exposures in kindergarten children](#). *Journal of Exposure Science & Environmental Epidemiology*, 27(5), 497–504; Boussad Y, Chen XL, Legout A, Chaintreau A, Dabbous W. (2022) [Longitudinal study of exposure to radio frequencies at population scale](#). *Environ Int*. Apr;162:107144 ; Mazloum, T., Aerts, S., Joseph, W., & Wiart, J. (2019). [RF-EMF exposure induced by mobile phones operating in LTE small cells in two different urban cities](#). *Annals of Telecommunications*, 74(1), 35–42.; Urbinello, D., Joseph, W., Verloock, L., Martens, L., & Rössli, M. (2014). [Temporal trends of radio-frequency electromagnetic field \(RF-EMF\) exposure in everyday environments across European cities](#). *Environmental Research*, 134, 134–142.

⁵² Sagar, S. et al. (2018). [Comparison of radiofrequency electromagnetic field exposure levels in different everyday microenvironments in an international context](#). *Environment International*, Volume 114, 297-306.

⁵³ Federal Register at page 14999

<https://www.govinfo.gov/content/pkg/FR-1986-04-22/pdf/FR-1986-04-22.pdf>

47 CFR 1.1306

<https://www.ecfr.gov/current/title-47/section-1.1306>

⁵⁴ FCC Public Notice – April 27, 2000, YEAR 2000 DEADLINE FOR COMPLIANCE WITH COMMISSION’S REGULATIONS REGARDING HUMAN EXPOSURE TO RADIOFREQUENCY EMISSIONS

<https://www.federalregister.gov/documents/2000/05/05/00-11237/year-2000-deadline-for-compliance-with-commission-s-regulations-regarding-human-exposure-to>

Categorical Exclusion applies. Carriers have a due diligence checklist with different requirements to check off yet this document is never submitted to the FCC if the applicant determines that the facility is categorically excluded; the FCC has no records of carriers doing their due diligence unless the review finds a potentially significant environmental effect that triggers an EA, which they submit. If nothing is triggered on the checklist, then the applicant starts building without the public having access to the checklist and measurements, and no ability to refute or comment on the project.

The Food and Drug Administration (FDA)

The FDA does not regulate, have activities related to, nor have authority regarding the RF emissions of cell towers, cell tower antennas, network infrastructure, or 5G facilities. Further, in regards to cell phones the FDA has not shown an evaluation of the totality of the science. Non cancer issues, such as headaches, oxidative stress, brain development, impacts to wildlife, and any studies on vulnerable populations such as pregnant people, children or the medically vulnerable have not been evaluated by the FDA in any report or evaluation shared with the public.

The FDA's very **limited activities** related to cell phones and cancer include a now outdated literature review (with science ending in 2018) focused solely only on cell phones and cancer.⁵⁵ This literature review, done by anonymous individuals (rather than transparently presented experts) is focused only on cancer and omits all non cancer studies such as research on brain development, reproduction, or synergistic effects. The review focused only on cell phones and omitted research on Wi-Fi, 5G, 4G or other RF sources. The review is a literature review and not a systematic review nor is it a hazard or risk analysis nor is it an evaluation of FCC cell tower radiation limits, despite being presented in this way. Several experts sent letters to the FDA⁵⁶ criticizing the literature review for numerous reasons including the fact that it does not follow any scientifically accepted protocols for risk or hazard assessment.

The [FDA's 2021](#) and [2022](#) Annual reports of the Center for Devices and Radiological Health have zero mention of the issue of cell phones or cell towers or wireless electromagnetic radiation. The [2022 to 2025](#)

⁵⁵ FDA, [Review of Published Literature between 2008 and 2018 of Relevance to Radiofrequency Radiation and Cancer](#)

⁵⁶ 2019/2020 Letters to the FDA Regarding Inaccurate Information on the NTP and FDA Website

[Letter calling for a retraction of FDA signed by several scientists](#) including Ronald Melnick PhD, former National Institutes of Health Scientist, Samuel Milham MD, former Head of the Chronic Disease Epidemiology Section, Washington State Department of Health; David Carpenter MD, Director of the Institute for Health and Environment at University of Albany's School of Public Health, former director of the Wadsworth Laboratory of the New York State Department of Health, Lennart Hardell MD, PhD, Professor Department of Oncology, Faculty of Medicine and Health Dr. Anthony Miller, Professor Emeritus of University of Toronto and World Health Organization Senior Advisor [Ronald Melnick PhD's individual letter to the FDA on the National Toxicology Program study](#) [Albert Manville PhD, retired Senior Wildlife Biologist, Division of Migratory Bird Management, U.S. Fish & Wildlife Service, Wash. DC HO Office \(17 years\); Senior Lecturer, Johns Hopkins University](#) [Prof. Tom Butler of the University College in Cork, Ireland's letter to the FDA](#) [Igor Belyaev, PhD, Dr. Sc. Head, Department of Radiobiology of the Cancer Research Institute, Biomedical Research Center of the Slovak Academy of Science letter to the FDA](#) [Paul Heroux PhD, McGill University](#) [Alfonso Balmori, BSc statement to the FDA](#)

[Report on Strategic Priorities](#) has nothing on the issue of RF radiation.⁵⁷ The FDA has not shown any evidence of monitoring RF bioeffects research via new agency reports, meetings or budget allocations on the issue.

The Government Accountability Report on 5G ([GAO 2020](#)) clarified that the FDA and other organizations “only reviewed a subset of the relevant research” and stated in regards to the FDA Literature Review that “The assessment focused on cancer-related animal and human studies of frequencies below 6 GHz.”

FDA Statements

“The FDA does not regulate cell towers or cell tower radiation. Therefore, the FDA has no studies or information on cell towers to provide in response to your questions.”

[Ellen Flannery, Director, FDA Policy Center for Devices and Radiological Health to a California mother with a cell tower on her street who asked the FDA about safety, July 11, 2022](#)

“Under the law, FDA does not review the safety of radiation-emitting consumer products such as cell phones and similar wireless devices before they can be sold, as it does with new drugs or medical devices.”

[FDA Website until 2019 -](#)

“We don’t have jurisdiction over cellphone towers since those are environmental emitters.”

[Email From FDA’s David Kassiday](#) in 2016

The Environmental Health Trust issued a [“Report on FDA Activities on Cell Phones and Radiofrequency”](#)⁵⁸ which documents the lack of adequate research review and misleading information put forward by the FDA. While the FDA webpages and cell phone cancer literature review seem to assert that safety is assured, the FDA has not adequately evaluated the totality of the science to reach any such safety or risk conclusion.

National Toxicology Program (NTP)

In 1999, the FDA requested the NTP perform large scale animal studies on cell phone radiation [stating](#),⁵⁹ “A significant research effort, including well-planned animal experiments, is needed to provide the basis to assess the risk to human health of wireless communications devices.”

The findings of the NTP’s \$30 million animal study were released in a 2018 final report which found that long term exposure to RF was associated with two types of cancer in male rats, schwannoma of the heart and

⁵⁷ <https://www.fda.gov/media/155888/download>

⁵⁸

https://ehtrust.org/wp-content/uploads/EHT-Report_-Report-on-FDA-Activities-Related-to-Cell-Phones-and-Radiofrequency-Radiation-2.pdf

⁵⁹ [FDA CDRH nomination of NTP to Study RFR. Nomination Background: Wireless Communication Devices](#)

glioma of the brain,⁶⁰ with the NTP's highest level of evidence.⁶¹ Further, the NTP notably found significant increases in DNA damage ([Smith-Roe et al., 2020](#)), as well as the induction of cardiomyopathy of the right ventricle in male and female rats. The later Ramazzini Institute studies found elevated incidence of the same tumors the NTP found - heart schwannomas in male rats - despite the Ramazzini Institute use of much lower RF radiation exposures than the NTP which were intended to mimic cell tower base station environmental exposures ([Falcioni et al., 2018](#); [Vornoli et al., 2019](#)).

Analysis of the NTP data according to current risk assessment guidelines concluded that U.S. government FCC limits should be lower by 200 to 400 times to protect children ([Uche & Naidenko, 2021](#)). Several published reviews conclude that the current body of evidence indicates RF radiation is a proven Group 1 human carcinogen ([Miller et al 2018](#), [Peleg et al 2018](#), [Carlberg and Hardell 2017](#), [Belpomme et al 2018](#)).

However, the FDA stated that they “disagreed” with the NTP findings⁶². The DC Circuit rejected FDA’s statement, saying “we find them to be of the conclusory variety that we have previously rejected as insufficient.”⁶³

National Cancer Institute (NCI)

Although the NCI has a lengthy web page on cell phones, the NCI has not performed any type of safety evaluation, nor any formal research review. The NCI has repeatedly stated that “Neither the literature reviews, nor the fact sheets, make safety determinations.” ([Letter from NCI to Scarato](#)).

When directly asked about cell phone safety issues by the New Hampshire Commission on 5G⁶⁴, the National Cancer Institute [responded](#), “As a Federal research agency, the NCI is not involved in the regulation of radiofrequency telecommunications infrastructure and devices, nor do we make recommendations for policies related to this technology...Our sister agencies, the FDA as well as the FCC, retain responsibility for reviewing guidance on safety concerns and informing the public if those circumstances change.”

The NCI signed onto a [one paragraph letter](#) in response to the [FCC Inquiry on RF Human Exposure Rules in 2013](#) simply thanking the FCC for “FCC’s interest in continuing to work closely with NIH and other federal agencies with expertise in public health for guidance and expertise on this matter.” However, NCI never submitted a substantive, meaningful comment regarding the adequacy of FCC guidelines, nor a systematic

⁶⁰M. Wyde et al., 2018; M. E. Wyde et al., 2018 <https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones>

⁶¹ <https://ntp.niehs.nih.gov/whatwestudy/testpgm/cartox/criteria>

⁶² FDA Press [Release, Statement from Jeffrey Shuren, M.D., J.D., Director of the FDA’s Center for Devices and Radiological Health on the National Toxicology Program’s report on radiofrequency energy exposure](#), November 1, 2018

⁶³ EHT et al.v FCC, supra

⁶⁴ New Hampshire Commissioner Denise Ricciardi asked the NCI, “What is the NCI opinion on the safety of cell phones? If you have one, please share your scientific documentation. The NCI responded, “The FDA and FCC are the responsible federal agencies with authority to issue opinions on the safety of these exposures. As a Federal research agency, the NCI is not involved in the regulation of radiofrequency telecommunications infrastructure and devices, nor do we make recommendations for policies related to this technology.” page 31 of the New Hampshire Commission Report on 5G <https://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf>

research review or evaluation regarding carcinogenicity or any other health issue as the NCI has not engaged in such activities.

Centers for Disease Control (CDC)

The CDC has no research activities related to EMF bioeffects. There has been no research review or evaluation by CDC experts regarding carcinogenicity or any other health issue. While the CDC does have webpages on cell phone radiation and wireless wearables, FOIAs show several were drafted with the help of an [industry consultant](#).

National Institute for Occupational Safety and Health (NIOSH)

NIOSH has no current activities related to non ionizing EMFs. Although U.S. NIOSH scientists long have recommended precautionary measures to minimize risk from occupational RF exposure⁶⁵ and developed recommendations to reduce extremely low frequency EMF,⁶⁶ protective policies were never further developed or implemented.

Department of Labor, Occupational Safety and Health Administration (OSHA)

OSHA currently is not engaged in bioeffect activities.

On July 1, 2015 [OSHA wrote the FCC](#) that, “RF emissions are not on OSHA's active regulatory agenda, so we have not conducted a comprehensive literature review or risk assessment on RF hazards” and “OSHA does not appear to have a particularized program in place to ensure worker safety with regard to RF exposure from the wide variety of RF transmitters regulated by the Commission. . . . we are not aware that OSHA has adequate resources to ensure compliance with our limits for occupational/controlled exposure among our licensees and grantees.”

⁶⁵ December 1979 [Radiofrequency \(RF\) Sealers and Heaters \(80-107\) | NIOSH | CDC](#)

“Absorption of RF energy may also result in “nonthermal” effects on cells or tissue, which may occur without a measurable increase in tissue or body temperature. “Nonthermal” effects have been reported to occur at exposure levels lower than those that cause thermal effects. While scientists are not in complete agreement regarding the significance of reports of “nonthermal” effects observed in laboratory animals, NIOSH believes there is sufficient evidence of such effects to cause concern about human exposures. NIOSH and OSHA recommend that precautionary measures be instituted to minimize the risk to workers from unwarranted exposure to RF energy.”

⁶⁶ See “Precautionary Strategies to Reduce Worker Exposures to Extremely Low Frequency (ELF) Magnetic Fields, a Possible Carcinogen” by Joseph D. Bowman, PhD, of the Engineering and Physical Hazards Branch at the National Institute for Occupational Safety (NIOSH) Slide presentation to the [Collaborative on Health and the Environment \(Bowman 2016\)](#). Listen to the presentation at https://www.healthandenvironment.org/partnership_calls/18482

OSHA was actively engaged in RF bioeffect activities in previous decades. The agency had developed elements for a [Comprehensive RF Protection Program](#) in the mid 90s⁶⁷ that was never implemented. An OSHA representative also participated in the now defunct RF Interagency workgroup.

Inaccurate Statements by Elected Officials

There is a lack of appropriate oversight in Congress due to the FDA and FCC's lack of full transparency regarding RF safety and their regulatory activities. Agencies should transparently state that they have not reviewed the research on health issues such as impacts to memory, epigenetic impacts and impacts to the environment (including pollinators). Agencies should also clearly state that the regulations do not address long term effects. The FDA should clarify that it has no authority nor judgment regarding health impacts from environmental levels of RF exposure from network antennas (including 5G, 4G, small cells, macro cell towers, or unlicensed antennas). The Congressional Committees tasked to provide oversight are not even aware this issue is in need of accountability.

Inaccurate statements by elected officials regarding the involvement of federal agencies on 5G and RF bioeffects.

U.S Senator Schumer's [February 6, 2023 Letter](#) states "*Rest assured that as additional studies on microwave radiation and RF exposure are published by scientists and reviewed by government agencies... Many other federal agencies, such as the EPA, FDA, NIOSH, OSHA have been actively involved in monitoring and investigating issues related to RF exposure.*" However, EPA, NIOSH, and OSHA are not actively involved.

[U.S. Representative Scott Fitzgerald](#)'s November 5, 2021 letter states that, "In addition to the FCC, Federal health and safety agencies such as the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) have been actively involved in monitoring and investigating issues related to radio frequency (RF) exposure." However, EPA, NIOSH, and OSHA are not actively involved.

Representative Doris Matsui stated in a [December 20, 2023 letter](#)⁶⁸ that "*the monitoring and investigation of RF exposure on public health is a collaborative effort between several federal agencies. Since 1996, the FCC has required all wireless communications devices sold in the United States to meet minimum guidelines for safe human exposure to RF energy. RF exposure standards are developed by subject matter experts such as the Institute of Electrical and Electronics Engineers (IEEE) and the National Council on Radiation Protection and Measurements (NCRP) and are used by federal, state and local governments to regulate the teleservice industry and protect public health. These regulators and experts have not found conclusive,*

⁶⁷ Presentation on April 12, 1995 by Robert A. Curtis, Director US DOL/OSHA Health Response Team to the National Association of Broadcasters at the Broadcast Engineering Conference Las Vegas, NV
<https://www.osha.gov/radiofrequency-and-microwave-radiation/role-of-rf-measurements>

⁶⁸ <https://ehtrust.org/wp-content/uploads/Representative-Doris-Matsui-Letter-on-5G-December-20-2023.pdf>

significant or causal evidence to suggest that 5G is harmful to humans.” However, there is no collaborative effort in regards to bioeffects.

Senator Diane Feinstein, [September 6, 2021](#), stated, without evidence, “Since 1996, it has been the FCC’s policy to cooperate with industry, expert agencies, and health and safety organizations to ensure that guidelines continue to be appropriate and scientifically valid.” However, expert agencies such as *EPA*, *NIOSH*, and *OSHA* with health and science expertise are not working with FCC on this topic.

ATTACHMENT 3: Radiofrequency Radiation Impacts on the Environment

No U.S. agency or international authority has ever acted to review research on wireless radiation effects on the environment nor set exposure limits to ensure protections for birds, bees, trees and wildlife.^{69,70} It is a critical regulatory gap.

In 2014, the U.S. Department of Interior wrote a letter to the NTIA detailing several published studies showing impacts of wireless radiofrequency radiation (RFR) to birds stating that, “There is a growing level of anecdotal evidence linking effects of non-thermal, non-ionizing electromagnetic radiation from communication towers on nesting and roosting wild birds and other wildlife.” It further stated, “However, the electromagnetic radiation standards used by the Federal Communications Commission (FCC) continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today.”⁷¹

Significant research has accumulated indicating serious environmental effects of RF, yet with no review by federal agencies. On August 13, 2021, the United States Court of Appeals for the District of Columbia Circuit ruled in our case against the FCC (*EHT et al. v FCC*),⁷² stating “we find the Commission’s order arbitrary and capricious in its complete failure to respond to comments concerning environmental harm caused by RF radiation.” The Commission also “completely failed even to acknowledge, let alone respond to, comments concerning the impact of RF radiation on the environment. That utter lack of a response does not meet the Commission’s obligation to provide a reasoned explanation for terminating the notice of inquiry.”⁷³ Despite the 2021 court order, the FCC has remained silent. It has taken no action to justify its refusal to update its 1996 wireless radiation exposure guidelines .

In 2021 and 2022 a three-part landmark research review by U.S experts of over 1,200 studies on the effects of non-ionizing radiation to wildlife entitled “Effects of non-ionizing electromagnetic fields on flora and fauna” found adverse effects in all species studied at even very low intensities. Findings included impacts

⁶⁹ Levitt, B. B., Lai, H. C., & Manville, A. M. (2021). [Effects of non-ionizing electromagnetic fields on flora and fauna. Part 3. Exposure standards, public policy, laws, and future directions. Reviews on Environmental Health.](#)

⁷⁰ Levitt BB, Lai HC and Manville AM II (2022) [Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach.](#) Front. Public Health 10:1000840. doi: 10.3389/fpubh.2022.1000840

⁷¹ https://www.ntia.doc.gov/files/ntia/us_doi_comments.pdf

⁷² [Final Court Decision EHT et. al v. the FCC](#) 8/13/2021

[https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EEDE7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EEDE7/$file/20-1025-1910111.pdf)

²³[https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EEDE7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EEDE7/$file/20-1025-1910111.pdf)

to orientation, migration, reproduction, mating, nest, den building and survivorship.^{74 75 76}

In a review published in *Environment International* on the ecological effects of RF-EMF, 70% of the studies reviewed found RF had a significant effect on birds, insects, other vertebrates, organisms, and plants, with development and reproduction in birds and insects being the most strongly affected.⁷⁷ Biologists caution that non ionizing electromagnetic radiation is a critical factor in the decline of pollinator and insect populations.⁷⁸

A 2023 [systematic review and meta-analysis of studies](#) on the biological effects on insects of non-ionizing electromagnetic fields, including cell tower and Wi-Fi radiation, was published in the journal *Reviews on Environmental Health*, finding the “vast majority of studies found effects, generally harmful ones” with toxic effects such as impacts to reproduction and immune health occurring at legally allowed exposure levels.⁷⁹

Pollinators at Risk: Higher Exposures to Insects From 5G and Higher Frequencies

- The study “[Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz](#)” by Thielens et al 2018 published in *Scientific Reports* found that for the 4 insects studied (western honeybee, australian stingless bee, beetle, locust), exposure at and above 6 GHz could lead to an increase in absorbed power between 3–370% (a factor if over 3 times.) The researchers concluded that “this could lead to changes in insect behavior, physiology, and morphology over time...”
- A follow up study on the honeybee entitled “[Radio-Frequency Electromagnetic Field Exposure of Western Honey Bees](#)” published in *Scientific Reports* by Thielens et al (2020) modeled exposure in various life cycle stages (worker, drone, larva, and queen) and combined the data with in-situ measurements of environmental RF-EMF exposure near beehives in Belgium in order to estimate realistic exposure and absorbed power values. Again, they found even a relatively small shift of 10% of environmental incident power density from frequencies below 3 GHz to higher frequencies will lead to a relative increase in absorbed power of a factor higher than 3.

⁷⁴ Levitt, B. B., Lai, H. C., & Manville, A. M. (2021). [Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3. Exposure standards, public policy, laws, and future directions.](#) *Reviews on Environmental Health*.

⁷⁵ Levitt, B. B., Lai, H. C., & Manville, A. M. (2021). [Effects of non-ionizing electromagnetic fields on flora and fauna, part 1. Rising ambient EMF levels in the environment.](#) *Reviews on Environmental Health*, 37(1), 81–122.

⁷⁶ Levitt, B. B., Lai, H. C., & Manville, A. M. (2021). [Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts: How species interact with natural and man-made EMF.](#) *Reviews on Environmental Health*, 37(3), 327–406.

⁷⁷ Cucurachi, S., Tamis, W. L. M., Vijver, M. G., Peijnenburg, W. J. G. M., Bolte, J. F. B., & de Snoo, G. R. (2013). [A review of the ecological effects of radiofrequency electromagnetic fields \(RF-EMF\).](#) *Environment International*, 51, 116–140.

⁷⁸ Balmori A. (2021) [Electromagnetic radiation as an emerging driver factor for the decline of insects.](#) *Science of the Total Environment*. 767: 144913

⁷⁹ Thill A, Cammaerts MC, Balmori A. [Biological effects of electromagnetic fields on insects: a systematic review and meta-analysis.](#) *Rev Environ Health*. 2023 Nov 23

- In a subsequent study, researchers modeled the exposures of 2.5 to 100 GHz into the honeybee brain and vital organs in [Estimation of the Specific Absorption Rate for a Honey bee Exposed to Radiofrequency Electromagnetic Fields from 2.5 to 100 GHz](#)," by Jeladze et al (2023) and found relatively higher SAR values are observed at 12, 25, and 40 [GHz] frequencies in the 4.8 - 8 W/Kg range, especially for the brain tissue. The SAR values varied depending on exposure parameters such as the direction of the incident plane wave, polarization, frequency, and body peculiarities. The authors conclude that, *“based on the obtained results, we can conclude that the exposure to high-frequency RF-EMFs on honey bees might have an undesired impact, which can cause an attenuation of the vital functions of this important insect.”*
- [“Radio-frequency exposure of the yellow fever mosquito \(A. aegypti\) from 2 to 240 GHz,”](#) published in PLOS Computational Biology, which found that for the given incident RF power, the absorption increases with increasing frequency between 2 and 90 GHz with a maximum between 90 and 240 GHz. Even at the same incident field strength, the power absorption by the mosquito is 16 times higher at 60 GHz than at 6 GHz. For 120 GHz, this increase is even larger compared to 6 GHz, with a factor 21.8. The absorption was highest in the region where the wavelength matches the size of the mosquito. The authors conclude that, *“In the future, the carrier frequency of telecommunication systems will also be higher than 6 GHz. This will be paired with higher absorption of EMF by yellow fever mosquitoes, which can cause dielectric heating and have an impact on behavior, development and possibly spread of the insect.”*

Impacts on Plants

A 2017 review [“Weak radiofrequency radiation exposure from mobile phone radiation on plants”](#) found physiological and/or morphological effects in 89.9% of studies reviewed.⁸⁰

“Additionally, our analysis of the results from these reported studies demonstrates that the maize, roselle, pea, fenugreek, duckweeds, tomato, onions and mungbean plants seem to be very sensitive to RF-EMFs. Our findings also suggest that plants seem to be more responsive to certain frequencies, especially the frequencies between (i) 800 and 1500 MHz (p < 0.0001), (ii) 1500 and 2400 MHz (p < 0.0001) and (iii) 3500 and 8000 MHz (p = 0.0161).”

Trees are also at risk from wireless. A field monitoring study spanning nine years involving over 100 trees found damage on the side of the trees facing transmitting cell antennas.⁸¹ Researchers have released subsequent reports documenting continued impacts to tree canopy from cell tower antennas.^{82,83} Other RF effects include impacts to leaf, shoot, seedlings of Aspen trees.⁸⁴

⁸⁰ Halgamuge, M. N. (2017). [Review: Weak radiofrequency radiation exposure from mobile phone radiation on plants](#). *Electromagnetic Biology and Medicine*, 36(2), 213–235

⁸¹ Waldmann-Selsam, C., Balmori-de la Puente, A., Breunig, H., & Balmori, A. (2016). [Radiofrequency radiation injures trees around mobile phone base stations](#). *Science of The Total Environment*, 572, 554–569.

⁸² Breunig, Helmut. [“Tree Damage Caused By Mobile Phone Base Stations An Observation Guide.”](#) (2017).

⁸³ 2021 Report [“Tree damage caused by mobile phone base stations”](#)

⁸⁴ Haggerty, K. (2010). [Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary](#)

Environmental Health Trust has developed a website focused on the science of wildlife and wireless at wildlifeandwireless.org.

ATTACHMENT 4: Radiofrequency Radiation Impacts on Human Health

Extensive published scientific evidence indicates that wireless radiofrequency (RF) radiation at levels far below FCC limits can cause cancer,⁸⁵ increased oxidative stress,⁸⁶ genetic damage,⁸⁷ structural and functional changes of the reproductive system,⁸⁸ memory deficit,⁸⁹ behavioral problems⁹⁰, and neurological impacts.⁹¹

*EHT et al. v. FCC the U.S. Court of Appeals for the D.C. Circuit 2021*¹⁷ also ruled the FCC ignored scientific evidence on negative health effects from long term wireless radiation exposure at current allowable levels, especially in regards to children, whom the American Academy of Pediatrics states⁹² are more vulnerable to wireless radiation. The court ordered the FCC to examine the record evidence regarding long term exposure to children, health effects unrelated to cancer and environmental impacts. To date, the FCC has not responded. This landmark ruling highlights how no federal health agency has reviewed the full body of current research to ensure current safety standards are protective.

Observations. *International Journal of Forestry Research*, 2010, 836278.

- ⁸⁵ Miller, A. B., Morgan, L. L., Udasin, I., & Davis, D. L. (2018). Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102). *Environmental Research*, 167, 673–683. <https://doi.org/10.1016/j.envres.2018.06.043>
- ⁸⁶ Yakymenko, I., Sidorik, E., Kyrylenko, S., & Chekhun, V. (2011). Long-term exposure to microwave radiation provokes cancer growth: Evidence from radars and mobile communication systems. *Experimental Oncology*, 33(2), 62–70 <https://pubmed.ncbi.nlm.nih.gov/21716201/>.
- ⁸⁷ Falcioni, L., Bua, L., Tibaldi, E., Lauriola, M., De Angelis, L., Gnudi, F., Mandrioli, D., Manservigi, M., Manservigi, F., Manzoli, I., Menghetti, I., Montella, R., Panzacchi, S., Sgargi, D., Strollo, V., Vornoli, A., & Belpoggi, F. (2018). Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission. *Environmental Research*, 165, 496–503. <https://doi.org/10.1016/j.envres.2018.01.037>
- ⁸⁸ Kim S, Han D, Ryu J, Kim K, Kim YH. Effects of mobile phone usage on sperm quality - No time-dependent relationship on usage: A systematic review and updated meta-analysis. *Environ Res.* 2021 Nov;202:111784. doi: 10.1016/j.envres.2021.111784. Epub 2021 Jul 30. PMID: 34333014
- ⁸⁹ Swiss Tropical and Public Health Institute. "Mobile phone radiation may affect memory performance in adolescents, study finds." *ScienceDaily.* ScienceDaily, 19 July 2018. www.sciencedaily.com/releases/2018/07/180719121803.htm.
- ⁹⁰ Divan HA, Kheifets L, Obel C, Olsen J. Cell phone use and behavioral problems in young children. *J Epidemiol Community Health.* 2012 Jun;66(6):524-9. doi: 10.1136/jech.2010.115402. Epub 2010 Dec 7. PMID: 21138897.
- ⁹¹ Hiie Hinrikus, Jaanus Lass & Maie Bachmann (2021) Threshold of radiofrequency electromagnetic field effect on human brain. *International Journal of Radiation Biology*, 97:11, 1505-1515, DOI: [10.1080/09553002.2021.1969055](https://doi.org/10.1080/09553002.2021.1969055)
- ⁹² AAP Letter to the FCC Chairman calling for the FCC to open up a review of RF guidelines (7/12/2012), AAP Letter to US Representative Dennis Kucinich in Support of the Cell Phone Right to Know Act 12/12/2012, AAP to FCC Commissioner Mignon Clyburn and FDA Commissioner Margaret Hamburg calling for a review of RF guidelines 8/29/2013

The state of New Hampshire commissioned a study on the Environmental and Health Effects of Evolving 5G Technology and issued a final report⁹³ in 2020 with 15 recommendations including: requiring setbacks of all wireless transmitters from residences, businesses and schools, adopting a statewide position to encourage fiber optics to the premise, acknowledging the need for further studies to outline clinical symptoms related to RF exposure, developing RF safety limits to protect the environment, among other recommendations.

In 2022, the Pittsfield, Massachusetts Board of Health sent a cease-and-desist order to shut down a Verizon cell tower. The order⁹⁴ issued to Verizon states “Whereas, soon after the facility was activated and began transmitting, the City started to receive reports of illness and negative health symptoms from residents living nearby the facility....The negative health symptoms the affected residents have reported include complaints of headaches, sleep problems, heart palpitations, tinnitus (ringing in the ears), dizziness, nausea, skin rashes, and memory and cognitive problems, among other medical complaints. ... Whereas, as further documented below, the neurological and dermatological symptoms experienced by the residents are consistent with those described in the peer-reviewed scientific and medical literature as being associated with exposure to pulsed and modulated Radio Frequency (“RF”) radiation, including RF from cell towers.”

A major 2022 review of the existing scientific literature on cell tower radiation and health found associations with radiofrequency sickness, cancer and changes in biochemical parameters.⁹⁵ For example, a study published in *Electromagnetic Biology and Medicine* on people living near cell antennas found significant biochemical changes in the blood. This study evaluated effects in the human blood of individuals living near mobile phone base stations compared with healthy controls living more than 300 meters from a base station. The group living closer to the antennas had statistically significant higher frequency of micronuclei and a rise in lipid peroxidation in their blood; these changes are considered biomarkers predictive of cancer.⁹⁶

According to Dr. Linda Birnbaum, Scientist Emeritus and Former Director of the National Institute of Environmental Health Sciences and National Toxicology Program of the National Institutes of Health, “Aware that the FCC’s 1996 limits lacked the underpinning of solid scientific data regarding long term health effects, the FDA requested large-scale studies by the National Toxicology Program (NTP) and in 2018 the NTP studies found clear evidence of an association with cancer in male rats.⁹⁷ Additionally, the NTP found heart damage and DNA damage, despite the fact that the animals were carefully exposed to non-heating RFR levels long assumed to be safe. The Ramazzini Institute animal studies⁹⁸ used even lower

⁹³ <https://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf>

⁹⁴ <https://ehtrust.org/wp-content/uploads/Pittsfield-Health-Board-Cell-Tower-Order-to-Verizon-April-11-2022-FINAL-REDACTED.pdf>

⁹⁵ A. Balmori (2022). Evidence for a health risk by RF on humans living around mobile phone base stations: From radiofrequency sickness to cancer. *Environ. Res.*, 214 (2022), Article 113851
<https://doi.org/10.1016/j.envres.2022.113851>

⁹⁶ Zothansiam, Zosangzuali, M., Lalramdinpui, M., & Jagetia, G. C. (2017). Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base stations. *Electromagnetic Biology and Medicine*, 36(3), 295–305.
<https://doi.org/10.1080/15368378.2017.1350584>.

⁹⁷ National Toxicology Program Radiofrequency Radiation
<https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html>

⁹⁸ Falcioni et al., Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station

RFR lower exposures to approximate cell tower emissions and also found increases of the same tumor type. The NTP studies were carefully controlled to ensure exposures did not significantly heat the animals. The animal study findings in combination with human studies indicate adverse effects from non heating levels of radiofrequency.

A review paper on corporate risk entitled “Limiting Liability with Positioning to Minimize Negative Health Effects of Cellular Phone Towers” reviewed the “large and growing body of evidence that human exposure to RFR from cellular phone base stations causes negative health effects.” The authors recommend restricting antennas near homes and within 500 meters of schools and hospitals to protect companies from future liability.⁹⁹

ATTACHMENT 5: Legal and Liability Issues of Wireless

U.S. mobile operators have been [unable to get insurance](#) to cover liabilities related to damages from long term exposure to radiofrequency emissions for well over a decade.¹⁰⁰

It is notable that in 2000, the Ecolog Institute Report on radiofrequency health effects, commissioned by T-Mobile and DeTeMobil Deutsche Telekom MobilNet, recommended an RF exposure limit 1000x lower than the FCC’s current power density limit after reviewing the research on biological effects, including impacts to the immune system, central nervous system, hormones, cancer, neurotransmitters and fertility.¹⁰¹ Insurers [rank](#) 5G and electromagnetic radiation as a “high” risk,¹⁰² [comparing the issue](#) to lead and asbestos.¹⁰³ A 2019 Report¹⁰⁴ by [Swiss Re Institute](#), a world leading provider of insurance, classifies 5G mobile networks as a “high”, “off-the-leash” risk stating, “Existing concerns regarding potential negative health effects from electromagnetic fields (EMF) are only likely to increase. An uptick in liability claims could be a potential

environmental emission, Environmental Research, Volume 165, 2018,
Pages 496-503 DOI: 10.1016/j.envres.2018.01.037

⁹⁹ Pearce, J. M. (2020). Limiting liability with positioning to minimize negative health effects of cellular phone towers. *Environmental Research*, 181, 108845. <https://doi.org/10.1016/j.envres.2019.108845>.

¹⁰⁰ Roseanne White Geisel, (2007) [Insurers exclude risks associated with electromagnetic radiation](#), Business Insurance

¹⁰¹ [Review of the Current Scientific Research in view of Precautionary Health Protection](#), Commissioned by T-Mobile DeTeMobil Deutsche Telekom MobilNet GmbH. (2000) Translated into English
<https://ehtrust.org/wp-content/uploads/T-mobile-RF-Radiation-Ecolog-2000-Report-pdf>

¹⁰² <https://ehtrust.org/key-issues/reports-white-papers-insurance-industry/>

¹⁰³ Lloyd’s of London Report on Electromagnetic Fields “Electromagnetic fields from mobile phones: recent developments.” Lloyd’s Emerging Risks Team Report, November 2010; 2016 Austrian Accident Insurance Institute (AUVA) ATHEM Report “Investigation of athermal effects of electromagnetic fields in mobile communications.” ; Business Insurance (2011) [White paper explores risks that could become 'the next asbestos'](#)

See also Factsheets on Legal Liability of Cell Towers at
<https://ehtrust.org/wp-content/uploads/Legal-Liability-Cell-Tower-Radiation-Health-Effects-3.pdf>

¹⁰⁴ Swiss Re 5G Report “Off the leash – 5G mobile networks”
<https://www.swissre.com/institute/research/sonar/sonar2019/SONAR2019-off-the-leash.html> PDF
<https://ehtrust.org/wp-content/uploads/Swiss-Re-SONAR-Publication-2019-excerpt-1.pdf>

long-term consequence” and “as the biological effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency.”

Due to their understanding of the magnitude of this future financial risk [most insurance plans](#) have “electromagnetic field exclusions” applied as the [market standard](#).¹⁰⁵ As an example, [Portland Oregon Public School Insurance](#) states,¹⁰⁶ “Exclusions: This insurance does not apply to: Bodily injury, personal injury, advertising injury, or property damage arising directly or indirectly out of, resulting from, caused or contributed to by electromagnetic radiation, provided that such loss, cost or expense results from or is contributed to by the hazardous properties of electromagnetic radiation.”

Wireless and non-ionizing electromagnetic radiation are defined as a type of “pollution” by wireless companies themselves. According to [pg. 10 of the Verizon Total Mobile Protection Plan](#), “Pollution” is defined as “The discharge, dispersal, seepage, migration or escape of pollutants. Pollutants means any solid, liquid, gaseous, or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, artificially produced electric fields, magnetic field, electromagnetic field, sound waves, microwaves, and all artificially produced ionizing or nonionizing radiation and/or waste.” Similar definitions for pollution are in the product protection plans for [AT&T](#), [Sprint](#), [Verizon](#), and [T-Mobile](#).

Wireless companies inform shareholders of RF risk¹⁰⁷ but not the communities impacted by the infrastructure.¹⁰⁸ Companies clearly inform shareholders that companies may incur significant financial losses related to non-ionizing electromagnetic fields. Corporate investor [warnings](#) by companies such as [T-Mobile](#), [AT&T](#), [Verizon](#), [Vodafone](#) and [Crown Castle](#) are contained in their Annual Reports, and Form 10-K (or Form 20-F or 40-F for foreign companies) with the Securities and Exchange Commission (SEC). For example, Crown Castle states in their [10-K tax filing](#) that:

If radio frequency emissions from wireless handsets or equipment on our communications infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues.

The potential connection between radio frequency emissions and certain negative health effects, including some forms of cancer, has been the subject of substantial study by the scientific community in recent years. We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us.

Public perception of possible health risks associated with cellular or other wireless connectivity services and wireless technologies (such as 5G) may slow or diminish the growth of wireless companies and deployment of new wireless technologies, which may in turn slow or diminish our growth. In particular, negative public perception of, and regulations regarding, these perceived health

¹⁰⁵ [Electromagnetic Field Insurance Policy Exclusions Cell Phone Radiation and EMFs - Environmental Health Trust](#)

¹⁰⁶ page 30 <https://ehtrust.org/wp-content/uploads/Portland-Public-School-2017-18-Excess-Liability0D0A-policy-1.pdf>

¹⁰⁷ [Corporate Company Investor Warnings in Annual Reports 10k Filings Cell Phone Radiation Risks - Environmental Health Trust](#)

¹⁰⁸ <https://ehtrust.org/key-issues/corporate-company-investor-warnings-annual-reports-10k-filings-cell-phone-radiation-risks/>

risks may slow or diminish the market acceptance of wireless services and technologies. If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters.”

[Verizon stated in its 10-K for 2022](#) under the section “Legal and Regulatory Risks” that:

“We are subject to a substantial amount of litigation, which could require us to pay significant damages or settlements. We are subject to a substantial amount of litigation and claims in arbitration, including, but not limited to, shareholder derivative suits, patent infringement lawsuits, wage and hour class actions, contract and commercial claims, personal injury claims, property claims, environmental claims, and lawsuits relating to our advertising, sales, billing and collection practices. In addition, our wireless business also faces personal injury and wrongful death lawsuits relating to alleged health effects of wireless phones. or radio frequency transmitters. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements.”

ATTACHMENT 6: Expert Recommendations on Technology Safety

This section includes recommendations from the following groups:

1. GAO
2. American Academy of Pediatrics
3. California Department of Health
4. Connecticut Department of Public Health
5. North Carolina Public Health Department
6. Maryland State Children’s Environmental Health and Protection Advisory Council
7. Santa Clara Medical Association
8. California Medical Association
9. Scientists With Expertise in Biological Effects of Electromagnetic Radiation
10. New Hampshire State Commission on 5G Health and Environment

United States Government Accountability Office

A 2012 Government Accountability Office (GAO) Report titled “Telecommunications: Exposure and Testing Requirements for Mobile Phones Should Be Reassessed”¹⁰⁹ stated that “By not formally reassessing its

¹⁰⁹ [Exposure and Testing Requirements for Mobile Phones Should Be Reassessed Report to Congressional Requesters.](#) United States Government Accountability Office, 2012.

current limit, FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure...” and that “Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit.” This report resulted in two GAO recommendations for the FCC:

Recommendation 1: “The Chairman of the FCC should formally reassess the current RF energy exposure limit, including its effects on human health, the costs and benefits associated with keeping the current limit, and the opinions of relevant health and safety agencies, and change the limit if determined appropriate.”

Recommendation 2: “The Chairman of the FCC should reassess whether mobile phone testing requirements result in the identification of maximum RF energy exposure in likely usage configurations, particularly when mobile phones are held against the body, and update testing requirements as appropriate.”

According to the GAO report “Despite many years of consideration, FCC still has no specific plans to take any actions that would satisfy our recommendations. Accordingly, we are closing the recommendations as not implemented.”

The American Academy of Pediatrics

The American Academy of Pediatrics (AAP) has written [several letters to the FCC](#) calling on them to update wireless safety limits to protect children ¹¹⁰stating that, “Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes.”

In response to the U.S. National Toxicology Program [animal study findings of cancer and DNA damage](#)¹¹¹ from cell phone radiation, the AAP also issued the cell phone safety tips specifically for families¹¹² to reduce exposure to wireless radiation including, “If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.”

The American Academy of Pediatrics [states regarding cell towers](#)¹¹³ that, “An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing: Headaches, Memory problems, Dizziness, Depression, Sleep problems.”

¹¹⁰ [The American Academy of Pediatrics Letters to the FCC](https://ehtrust.org/wp-content/uploads/American-Academy-of-Pediatrics-Letters-to-FCC-and-Congress-.pdf)
<https://ehtrust.org/wp-content/uploads/American-Academy-of-Pediatrics-Letters-to-FCC-and-Congress-.pdf>
[AAP Letter to the FCC Chairman calling for the FCC to open up a review of RF guidelines \(7/12/2012\)](#)
[AAP Letter to US Representative Dennis Kucinich in Support of the Cell Phone Right to Know Act 12/12/2012](#)
[AAP to FCC Commissioner Mignon Clyburn and FDA Commissioner Margaret Hamburg calling for a review of RF guidelines 8/29/2013](#)

¹¹¹ [Cell Phone Radio Frequency Radiation](#)

¹¹² [Cell Phone Radiation & Children’s Health: What Parents Need to Know - HealthyChildren.org](#)

¹¹³ [Electromagnetic Fields: A Hazard to Your Health? - HealthyChildren.org](#)

California Department of Health

The California Department of Health released [an advisory on how to reduce cell phone radiation](#)¹¹⁴ stating children may be more at risk and “Although the science is still evolving, some laboratory experiments and human health studies have suggested the possibility that long-term, high use of cell phones may be linked to certain types of cancer and other health effects.” Recommendations include, “Parents should consider reducing the time their children use cell phones and encourage them to turn the devices off at night.”

Connecticut Department of Public Health

The Connecticut Department of Public Health states in its FAQs on Cell Phones that it is “wise” to reduce cell phone radio frequency to one’s brain.¹¹⁵

North Carolina Public Health Department

[The North Carolina Public Health Department](#) lists the full cancer findings of the NTP study¹¹⁶, the FDA stance, and also the American Academy of Pediatrics recommendations to reduce cell phone radiation stating “there is some concern that exposure to non-ionizing radiation, also called radio frequency radiation, that is emitted by cell phones may result in an increased risk of cancer or other health effects”

Maryland State Children’s Environmental Health And Protection Advisory Council

The [Maryland State Children’s Environmental Health And Protection Advisory Council](#), whose 19 member Commission includes experts in public health, pediatricians, state health and environment agencies and legislators issued a report recommending reducing wireless exposure to children in schools and homes.¹¹⁷

Santa Clara Medical Association

The [Santa Clara Medical Association](#) Best Practices for Technology in schools¹¹⁸ recommends reducing Wi-Fi exposure and restricting cell towers near schools.

California Medical Association

In 2014, the California Medical Association passed two resolutions regarding wireless standards: 1. To “support efforts to reevaluate microwave safety exposure levels associated with wireless communication devices, including consideration of adverse non-thermal biologic and health effects from non-ionizing electromagnetic radiation used in wireless communications”; and 2. To “support efforts to implement new

¹¹⁴ California Department of Public Health, [Cell phone advisory](#) (2017)

¹¹⁵ [Connecticut Department of Public Health, Cell Phone Factsheet 2015](#)

¹¹⁶ [North Carolina Department of Health and Human Services, Cell Phones 2020](#) .

¹¹⁷ The Maryland State Children’s Environmental Health and Protection Advisory Council [Wi-Fi in School Report](#), [Letter to the Federal Communications Commission](#) May 1, 2019 and [“Guidelines to Reduce Electromagnetic Field Radiation”](#)

¹¹⁸ [Santa Clara County Medical Association Best Practices for Safe Technology in Schools](#)

safety exposure limits for wireless devices to levels that do not cause human or environmental harm based on scientific research.”

Scientists With Expertise in Electromagnetic Radiation

Numerous medical groups have called for policies to reduce children’s exposure¹¹⁹. For example, the [EMF Scientists](#) are over 259 scientists from 41 countries who have peer-reviewed publications on electromagnetic fields who made a 2015 appeal to the United Nations¹²⁰ and all member States in the world to encourage the World Health Organization “to exert strong leadership in fostering the development of more protective EMF guidelines, encouraging precautionary measures, and educating the public about health risks, particularly risk to children and fetal development.” A recent paper published in Environment Magazine¹²¹ argues that government regulation and protection from the increased levels of RF is well past due.

New Hampshire State Commission on 5G Health and Environment

In 2019 the New Hampshire government passed House Bill 522 “An act establishing a commission to study the environmental and health effects of evolving 5G technology.”¹²² The Commission released its [Final Report on Commission to Study the Environmental and Health Effects of Evolving 5G Technology](#)¹²³ in 2020 with findings that safety assurance for wireless technology “come into question because of the thousands of peer-reviewed studies documenting deleterious health effects associated with cellphone radiation exposure.” In its report the Commission issued 15 recommendations:

1. Support statewide deployment of fiber optic cable connectivity with wired connections inside homes.
2. New Hampshire schools and libraries should replace Wi-Fi with hardwired connections.
3. Require setbacks for new wireless antennas from residences, businesses, and schools.
4. New Hampshire health agencies should educate the public on minimizing radiofrequency radiation (RFR) exposure with public service announcements on radio, television, and print. “Warnings concerning the newborn and young as well as pregnant women”
5. Establish RFR free zones in commercial and public buildings
6. New measurement protocols needed to evaluate high data rate, signal characteristics associated with biological effects and cumulative effects of multiple radiation sources.
7. RFR signal strength measurements for cell sites should be done by independent contractors.
8. NH professional licensure to offer education so home inspectors can include RFR intensity

¹¹⁹ [Reykjavik Iceland Appeal on Wireless in School](#); [Scientist 5G Appeal to the EU](#)(2017) [Nicosia Declaration](#) (2017); [the International Society of Doctors for Environment 5G Appeal](#) (2018); [2020 Consensus Statement of UK and International Medical and Scientific Experts and Practitioners on Health Effects of Non-Ionising Radiation](#).

¹²⁰https://ehtrust.org/wp-content/uploads/European_Journal_on_Oncology_December_2015.International_EMF_Scientist_Appeal-2.pdf and [EMF Scientist](#)

¹²¹ Ben-Ishai, P. (2024). [Applying the Precautionary Principal To Wireless Technology: Policy Dilemmas and Systemic Risks](#) Environment: Science and Policy for Sustainable Development, Volume 66, 2024, P: 5-18.

¹²² https://www.gencourt.state.nh.us/bill_status/legacy/bs2016/

¹²³ <https://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf>

measurements.

9. Warning signs to be posted in commercial and public buildings.
10. State should measure RFR and post maps with measurements for the public.
11. Require 5G structures to be labeled for RFR at eye level and readable from nine feet away.
12. Engage agencies with ecological knowledge to develop RFR safety limits that will protect the trees, plants, birds, insects, and pollinators.
13. Under the National Environmental Policy Act, FCC should do an environmental impact statement as to the effect on New Hampshire and the country as a whole from 5G and the expansion of RF wireless technologies.
14. Cell phones and wireless devices should be equipped with updated software that stops cell phones from radiating when positioned against the body.
15. A resolution to US Congress to require the FCC to commission an independent health study and review of safety limits.

ATTACHMENT 7: Fact Sheet on Environmental Impacts of Satellite Proliferation

S.4010 is a Senate companion bill¹²⁴ to HR 1338,¹²⁵ the impact of which is described in the attached factsheet on environmental and other impacts of satellite proliferation.¹²⁶

¹²⁴ <https://www.congress.gov/bill/118th-congress/senate-bill/4010>

¹²⁵ <https://www.congress.gov/bill/118th-congress/house-bill/1338>

¹²⁶ Fact sheet also available at

<https://ehtrust.org/wp-content/uploads/Satellite-federal-bills-EHT-factsheet-11-1-23.pdf>



July 8, 2024

House Energy & Commerce Committee
Communications & Technology Subcommittee

Subject: Submission for the Record
July 9, 2024 hearing, "Fiscal Year 2025 Federal Communications Commission Budget."

Dear Chairs McMorris Rodgers and Latta, Ranking Members Pallone and Matsui, and Members of the Committee,

We are writing in regard to the July 9, 2024 hearing on the FCC's 2025 budget and other oversight matters.

Section A: Questions for July 9 Hearing

We respectfully request that you ask FCC Chair Rosenworcel the following questions:

1. What is the status of FCC complying with a court order issued by the US Court of Appeals DC Circuit in 2021¹ to provide a reasoned explanation for retaining its 1996 limits for human exposure to radiofrequency (cell tower radiation)? When does FCC expect to complete its compliance with the court order?

¹ [https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/\\$file/20-1025-1910111.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/$file/20-1025-1910111.pdf)

2. Will the FCC complete a new rulemaking to update its radiofrequency guidelines for human exposure? Such a rulemaking would help assure the public that when the FCC uses federal preemption to force deployments on local governments, that the FCC has determined safety for children and families. Current wireless exposure standards are based largely on 40-60 minute exposures of a small number of monkeys and rats (not more than a dozen each), over 40 years ago.² GAO first recommended that the FCC revisit these limits back in 2012 and the FCC has not yet done so.³

Section B: Budget Proposals

3. We request you consider the following limitation amendment in the FY2025 FCC budget:

Until the FCC complies with, and satisfies the requirements contained in, the mandate issued October 5, 2021 by the U.S. Court of Appeals D.C. Circuit in case number 20-1025, the budget authority for Spectrum Auctions Program and related cost recovery reimbursement shall be limited to the level of FY2023, which was \$103,900,000.

The [FCC proposes](#) a core budget of \$448 million, plus an additional \$139 million for carrying out spectrum auctions.⁴ The FCC is continuing to spend this \$139 million despite abrogation of its obligations under the law.

For almost 3 years now, the FCC has ignored the US Court of Appeals DC Circuit order, issued in the successful lawsuit *Environmental Health Trust et al. V. FCC*, to provide an explanation for why the FCC decided not to update its human exposure limits for wireless radiation. The FCC has not considered the latest science for over 25 years, as it is obligated to do under the law. FCC's continuing work to make more spectrum available while failing to update its exposure limits puts all Americans at risk, and is harming millions of Americans.⁵

This limitation amendment would incentivize FCC to follow the law. Complying with laws passed by Congress and the court order is not optional for the FCC – this is an administrative agency acting with impunity while 100% of its budget is paid for by the industry it is supposed to be regulating.

² See page 5 and footnote 8, Environmental Health Trust testimony submitted March 27, Senate Commerce Committee

<https://ehtrust.org/wp-content/uploads/EHT-Testimony-to-Senate-Commerce-Committee-on-S3909-03272024.pdf>

³ Exposure and Testing Requirements for Mobile Phones Should Be Reassessed, GAO-12-771, Jul 24, 2012

<https://www.gao.gov/products/gao-12-771>

⁴ FCC Budget-in-Brief, March 2024

<https://docs.fcc.gov/public/attachments/DOC-401129A1.pdf>

⁵ <https://thenationalcall.org/wp-content/uploads/2024/05/Congressional-Briefing-5-19-24-FINAL.pdf>

4. We urge you to support section 524 in the budget passed by the House Appropriations Committee, which is under consideration today.⁶

Section 524 would prohibit the FCC from using funds to implement its “net neutrality” rule. The FCC’s net neutrality order, via its reclassification of wireless data service as a telecommunications service, will preempt local zoning authority over the deployment of wireless facilities. The FCC is expanding federal preemption to proliferate wireless facilities despite not having completed a rulemaking to update its human exposure guidelines for radiofrequency radiation — that is, without determining safe levels of radiofrequency exposure that will result from these facilities. As was reflected in comments during rulemaking, the FCC could have achieved its net neutrality policy goals for wireless data, either under its Title III authority, or under Title II while exercising forbearance from the provisions that preempt local zoning. The FCC ignored these comments. As such, while we take no position on net neutrality *per se*, we oppose the current net neutrality order until such time as the FCC removes the provisions that expand preemption of local zoning authority over wireless facilities.⁷

Preservation of local zoning authority should be a topic with bipartisan support. The majority has long defended states’ rights and federal overreach. At the same time, minority leadership on E&C has emphasized the importance of local zoning authority over wireless facilities in hearings, as recently as last year.⁸

⁶ <https://docs.house.gov/meetings/AP/AP23/20240605/117405/BILLS-118-SC-AP-FY2025-FServices-FY25FSGGSubcommitteeMark.pdf>

⁷ In its final rule, the FCC readily acknowledged and defended expanded wireless preemption (for example see paragraphs 74, 76). <https://www.fcc.gov/document/fcc-restores-net-neutrality-0> NATOA filed comments supporting net neutrality but opposing local preemption over wireless facilities, and urging the FCC to avoid expanded preemption, writing: "NATOA urges the Commission to forbear the application of Sections 253 and 332(c)".

<https://www.fcc.gov/ecfs/search/search-filings/filing/101172857711583>

National League of Cities filed comments opposing local preemption and urging forbearance.

<https://www.fcc.gov/ecfs/search/search-filings/filing/1215761504735>

BB&K filed comments in the docket on behalf of a local governments coalition, opposing local preemption. (BB&K has acted as counsel over the years to a number of coalitions of local governments bringing judicial challenges to FCC preemption.)

<https://www.fcc.gov/ecfs/search/search-filings/filing/10117786602033>

Wired Broadband et al. filed comments urging Title III or forbearance

<https://www.fcc.gov/ecfs/search/search-filings/filing/121521996449>

along with reply comments.

<https://www.fcc.gov/ecfs/document/1011880442230/1>

⁸ For example, Ranking Member Pallone said on May 17, 2024:

“It is the mayors, and councils, and planning boards, and zoning boards who are responsible for these considerations, and they are on the hook if anything goes wrong or someone gets hurt.”

Line 6826

For additional background on the court case, federal regulatory policy and wireless infrastructure, and the latest science, please see testimony submitted to the Senate Committee on Commerce, Science, and Technology.⁹

Section C: Legislative Proposals

5. Support S.3119, which would nullify the net neutrality order, and introduce similar companion legislation in the House.¹⁰

See #4 above for rationale

6. Condition renewal of spectrum auction authority on FCC updating its radiofrequency limits for human exposure

The Committee may soon be asked to consider Senate legislation renewing FCC auction authority.¹¹ While we oppose the renewal of auction authority, if the Committee moves forward with spectrum legislation, we urge you to incorporate the following legislative text that would require the FCC to complete a rulemaking updating its radiofrequency exposure limits prior to making any further spectrum available for commercial use.

(a) The Commission shall

- (1) within 180 days of the date of enactment of this Act begin a rulemaking to update its radiofrequency exposure limits contained in 47 CFR Part 1 Subpart I, including without limitation the limits in §1.306 and §1.310; and**
- (2) within two years of the date of enactment of this Act complete such rulemaking.**

Such rulemaking shall consider, without limitation, materials submitted at any time prior to the date of this Act in FCC Dockets 13-84, 03-137, and 19-226.

<https://docs.house.gov/meetings/IF/IF00/20230524/116022/HMKP-118-IF00-Transcript-20230524.pdf>

Ranking Member Matsui said on March 24, 2024:

“Local governments in my district are concerned about heavy-handed preemption...I’d encourage the Members of this Committee to reach out to their mayors and city council members. I’m sure they’ll share these concerns.”

<https://docs.house.gov/meetings/IF/IF00/20230524/116022/HMKP-118-IF00-MState-M001163-20230524.pdf>

⁹ <https://ehtrust.org/wp-content/uploads/EHT-Testimony-to-Senate-Commerce-Committee-on-S3909-03272024.pdf>

¹⁰ <https://www.congress.gov/bill/118th-congress/senate-bill/3119>


¹¹ S. 4207 and S. 3909 are currently pending

(b) Notwithstanding anything to the contrary in this Act, [insert legislative section numbers renewing auction authority] shall have no force or effect and shall not go into effect until the FCC completes the rulemaking described in this section.

Making spectrum available for commercial use will automatically trigger the most heavy-handed form of preemption over wireless facilities, known as Section 6409.¹² In fact, as soon as more spectrum is made available, carriers across the country can add almost unlimited additional antennas and additional power output on their existing facilities to broadcast radiofrequency emissions using the new spectrum – despite no US government agency having ever assessed the exposures resulting from these emissions for safety. Hundreds of localities around the country have sued the FCC over its rules implementing section 6409.¹³

Thank you for your attention to these matters. We would be happy to discuss this letter and related matters further with you.

Sincerely,

DocuSigned by:

78664444DF89407...
Odette J. Wilkens

Chair & General Counsel

The National Call for Safe Technology

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¹² Section 6409 states:

“a State or local government may not deny, and shall approve, any eligible facilities request”

See Middle Class Tax Relief and Job Creation Act of 2012, Public Law 112–96, 47 USC 1455.

¹³ *Montgomery County et al. v. FCC* (2015 Fourth Circuit, No. 15-1240)

T-Mobile v. San Francisco 658 F. Supp. 3d 773 (N.D. Cal. 2023)

City of Boston et al. v. FCC (pending, Ninth Circuit, No. 20-1301)



COALITION FOR EMERGENCY RESPONSE AND CRITICAL INFRASTRUCTURE

April 15, 2024

VIA ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

**Re: *Written Ex Parte* – Amendment of Part 90 of the Commission’s Rules,
WP Docket No. 07-100**

The Coalition for Emergency Response and Critical Infrastructure (CERCI) has noted repeatedly in the above-captioned proceeding that a proposal to reallocate the 4.9 GHz band from state and local first responders to the First Responder Network Authority (the FNA) is not currently before the Commission for consideration and, even if it were, such a proposal would be unlawful.¹ In response to ongoing assertions to the contrary,² CERCI commissioned the attached legal analysis of the FNA’s reallocation proposal.

As the attached analysis explains, the FNA’s proposed reallocation would be unlawful for several reasons. First, the Commission lacks statutory authority under the Middle Class Tax Relief and Job Creation Act of 2012 to award the FNA a license beyond the 700 MHz band addressed by that Act, and no other statute authorizes such a transfer. Second, even if the FCC had statutory authority to make this grant, which it does not, the FNA is not statutorily authorized to receive it. Third, attempting to undertake this grant based on existing statutory authorities would violate the major questions doctrine and the nondelegation doctrine.

¹ See Letter from Roger C. Sherman, Policy Advisor, CERCI, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100, at 1-2 (Feb. 8, 2024); Letter from Roger C. Sherman, Policy Advisor, CERCI, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100, at 2-4, 6 (Feb. 6, 2024); Letter from Roger C. Sherman, Policy Advisor, CERCI, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100, at 2-3 (Nov. 16, 2023).

² See generally Letter from Jeffrey D. Johnson, Executive Director, Western Fire Chiefs Association, to Marlene H. Dortch, Secretary, FCC, WP Docket No. 07-100 (Dec. 6, 2023); Reply Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (May 14, 2023); Comments of the First Responder Network Authority, WP Docket No. 07-100 (Apr. 13, 2023); Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (Apr. 12, 2023).

For these reasons, CERIC respectfully reiterates that the proposal by the Public Safety Spectrum Alliance and the FNA to reallocate the 4.9 GHz band is unlawful and should be rejected.

Sincerely,

The Coalition for Emergency Response and Critical
Infrastructure (CERIC)

/s/ Roger C. Sherman

Kenneth Corey
NYPD Chief of Dept. (Ret.)
CERIC Chairman

Roger C. Sherman
CERIC Policy Advisor

Attachment

April 15, 2024

From: Jenner & Block LLP
Re: Amendment of Part 90 of the Commission's Rules
Subject: WP Docket No. 07-100

EXECUTIVE SUMMARY

This Memorandum considers the proposal that the Federal Communications Commission (the "FCC" or "Commission") grant the First Responder Network Authority (the "FNA") control of the 4.9 GHz band.¹ For the reasons discussed below, such a grant would be unlawful for several reasons. First, the Commission lacks statutory authority under the Middle Class Tax Relief and Job Creation Act of 2012 (the "2012 Act" or "Act") to award the FNA a license beyond the 700 MHz band addressed by that Act, and no other statute authorizes such a transfer.² Second, even if the FCC were authorized to make this grant, the FNA is not statutorily authorized to receive it. Third, attempting to undertake this grant based on existing statutory authorities would, in any case, violate the major questions doctrine and raise nondelegation issues. In light of these numerous and fundamental issues, the Commission should decline to grant the FNA control of the 4.9 GHz band.

I. The Commission Lacks Statutory Authority to Assign the 4.9 GHz Band to the FNA.

In its Seventh Report and Order, the Commission solicited comment as to whether there is any "existing statutory authority that would permit the integration of the 4.9 GHz band into public safety broadband networks."³ With respect to the FNA and its national public safety broadband network ("NPSBN"), the answer is no: neither the 2012 Act nor any other statute authorizes the Commission to integrate the 4.9 GHz band into the public safety broadband network and thereby provide the FNA with control of the 4.9 GHz band.

¹ See generally Comments of the First Responder Network Authority, WP Docket No. 07-100 (Apr. 13, 2023) ("FNA Comments"); Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (Apr. 12, 2023) ("PSSA Comments"); Reply Comments of the Public Safety Spectrum Alliance, WP Docket No. 07-100 (May 14, 2023) ("PSSA Reply Comments").

² See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156.

³ *Amendment of Part 90 of the Commission's Rules*, Seventh Report and Order and Ninth Further Notice of Proposed Rulemaking, 38 FCC Rcd 704, 736 ¶ 88 (2023) ("*Seventh Report and Order*").

A. The 2012 Act Does Not Authorize the Commission to Assign a Nationwide License of the 4.9 GHz Band to the FNA.

Both the FNA and the Public Safety Spectrum Alliance (“PSSA”) suggest that the 2012 Act—which created the FNA and directed the Commission to reallocate the 700 MHz spectrum to the FNA —also authorizes the Commission to grant the FNA access to the 4.9 GHz band. According to the FNA, the “Commission should consider permitting the FirstNet Authority access to and use of the 4.9 GHz spectrum for the NPSBN under its current license.”⁴ For its part, PSSA suggests that “[t]aken to its natural conclusion, the FirstNet Authority’s existing license could be expanded, or a new license should be issued, to include use and oversight of the 4.9 GHz Public Safety Band consistent with the regulatory framework established under the 2012 Act that already governs the FirstNet Authority’s mission.”⁵ But the 2012 Act is clear that the Commission cannot rely on that limited grant of authority to award the 4.9 GHz band to the FNA.

In authorizing the Commission to reallocate the 700 MHz band to the FNA, Congress created a narrow carve-out to the established division of authority between the National Telecommunications and Information Administration (“NTIA”)—which oversees Federal spectrum use—and the Commission—which regulates non-Federal spectrum use. That division of authority is set forth in both the Communications Act and the NTIA Act. Sections 301 and 303 of the Communications Act grant the Commission general licensing authority “over all the channels of radio transmission.”⁶ However, under Section 305(a), “[r]adio stations belonging to and operated by the United States shall *not* be subject to the provisions of sections 301 and 303,” and “[a]ll such Government stations shall use such frequencies as shall be assigned to each or to each class by the President.”⁷ Section 902, which establishes NTIA, meanwhile delegates to NTIA “[t]he authority delegated [to] the President” under Section 305 “to assign frequencies to radio stations or classes of radio stations belonging to and operated by the United States, including the authority to amend, modify, or revoke such assignments, but not including the authority to make final disposition of appeals from frequency assignments.”⁸ This statutory division of authority is also set forth in a memorandum of understanding wherein the Commission and NTIA have jointly recognized that “[t]he FCC is an independent agency that is the exclusive regulator of non-Federal spectrum use,” while “NTIA is the sole agency responsible for authorizing Federal spectrum use.”⁹

Against this backdrop, the 2012 Act represents a one-time exception that allowed the Commission to assign a specific, enumerated spectrum (the 700 MHz band) to the FNA, which

⁴ FNA Comments at 4.

⁵ PSSA Reply Comments at 5 (footnote omitted).

⁶ 47 U.S.C. § 301; *see also generally id.* § 303 (listing the Commission’s powers and duties, some of which are related to licensing).

⁷ *Id.* § 305(a) (emphasis added).

⁸ *Id.* § 901(b)(2)(A). All of these provisions apply to broadband as well as voice radio because the Communications Act defines “radio communication” to include “the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds,” *id.* § 153(40), and “radio station” as any “station equipped to engage in radio communication or radio transmission of energy,” *id.* § 153(42).

⁹ *Memorandum of Understanding Between the FCC and the NTIA* (“MOU”) at 2 (Aug. 1, 2022), https://www.ntia.gov/sites/default/files/publications/ntia-fcc-spectrum_mou-8.2022.pdf.

was expressly created in the same Act as a limited-purpose Federal entity to receive and administer this spectrum. The FNA’s status as a Federal entity is clear from the text of the Act, which establishes the FNA as an “independent authority within the NTIA”¹⁰ and exempts it from three statutes otherwise applicable to federal agencies—the Paperwork Reduction Act, the Administrative Procedure Act, and the Regulatory Flexibility Act¹¹—all of which would be unnecessary were the FNA not a Federal entity. Moreover, the Commission’s website lists the FNA’s licensee type as “Governmental Entity – Independent Authority,”¹² courts have consistently treated the FNA as a Federal entity,¹³ and the FNA has published rulemaking documents in the Federal Register.¹⁴

To effect its departure from the existing statutory division of authority, the 2012 Act authorized the Commission to grant the FNA the 700 MHz spectrum “[n]otwithstanding any other provision of law.”¹⁵ But Congress repeatedly made clear that the Commission’s ability to grant a license to the FNA was highly circumscribed. The Commission cannot now rely on this narrow and specific grant of authority to award the FNA additional spectrum contemplated nowhere in the 2012 Act itself.

To the contrary, the text, structure, purpose, and regulatory context of the 2012 Act categorically foreclose any argument that the Act authorizes the Commission to allocate the 4.9 GHz band to the FNA:

Text. The text authorizes the Commission to allocate only the 700 MHz spectrum to the FNA; it cannot reasonably be read to authorize the Commission to undertake any further allocations to the FNA. In the first substantive provision of the Act, Congress directed that the “Commission shall reallocate the 700 MHz D block spectrum for use by public safety entities in accordance with the provisions of this chapter.”¹⁶ Section 1421(a) additionally directs that, “subject to the provisions of this chapter,” the Commission “shall reallocate and grant a license to [the FNA] for the use of the 700 MHz D block spectrum and existing public safety broadband spectrum,”¹⁷ the latter of which includes exclusively other portions of the 700 MHz band.¹⁸ The

¹⁰ 47 U.S.C. § 1424(a).

¹¹ *See id.* § 1426(d).

¹² *See* FCC, *Universal Licensing System, 700 MHz Public Safety Broadband Nationwide License – WQQE234 – First Responder Network Authority*, <https://wireless2.fcc.gov/UlsApp/UlsSearch/license.jsp?licKey=3422973>.

¹³ *See, e.g., Whitaker v. Dep’t of Com.*, 970 F.3d 200, 204-06 (2d Cir. 2020) (holding that the FNA is exempt from FOIA, but only because of APA exemption in 47 U.S.C. § 1426(d)(2), signaling that FNA records would otherwise be subject to FOIA requests); *Rivada Mercury, LLC v. United States*, 131 Fed. Cl. 663, 678-82 (2017) (analyzing FNA contract for FAR compliance); *United States v. Story Cnty.*, 28 F. Supp. 3d 861, 868-69 (S.D. Iowa 2014) (holding that FNA Board member was subject to the Hatch Act).

¹⁴ *See generally, e.g., Final Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012*, 80 Fed. Reg. 63504 (Oct. 20, 2015) (“*Final Interpretations of 2012 Act*”).

¹⁵ 47 U.S.C. § 1421(a).

¹⁶ *Id.* § 1411(a).

¹⁷ *Id.* § 1421(a).

¹⁸ *See id.* § 1401(14).

700 MHz spectrum is the *only* spectrum band the Act discusses when authorizing the Commission to grant a license to the FNA—and it is thus the only spectrum band for which the 2012 Act supplies any grant of authority to the Commission.

To avoid any doubt, Congress specifically enumerated the precise frequencies covered by the 2012 Act’s grant of authority. The Act defines the “700 MHz D block spectrum” as the “the frequencies from 758 megahertz to 763 megahertz and between the frequencies from 788 megahertz to 793 megahertz.”¹⁹ It defines “existing public safety broadband spectrum” as “the frequencies—(A) from 763 megahertz to 768 megahertz; (B) from 793 megahertz to 798 megahertz; (C) from 768 megahertz to 769 megahertz; and (D) from 798 megahertz to 799 megahertz.”²⁰ The Act also contains a “[r]ule of construction” providing that “[e]ach range of frequencies described in this chapter shall be construed to be inclusive of the upper and lower frequencies in the range.”²¹

This bounded authority—textually cabined to specific 700 MHz frequencies across multiple provisions and specified down to the individual frequencies—cannot be read to tacitly authorize the Commission to allocate an entirely different band mentioned nowhere in the Act. That is particularly true in light of the Act’s departure from the statutory division of authority between NTIA and the Commission that generally bars the Commission from assigning spectrum for Federal use.

Structure. The statutory structure further shows that the Commission’s authority to allocate spectrum to the FNA was exceedingly narrow. In directing the Commission to grant a license to the FNA over the 700 MHz spectrum band, Congress used mandatory language and repeatedly admonished the Commission to act in accordance with the provisions of the Act: “[T]he Commission *shall* reallocate the 700 MHz D block spectrum . . . *in accordance with the provisions of this chapter,*” and “*subject to the provisions of this chapter, the Commission shall* reallocate and grant a license to [the FNA] for the use of the 700 MHz D block spectrum and existing public safety broadband spectrum.”²² That language can be contrasted, for example, with an adjacent provision of the Act conferring some measure of discretion to the Commission: the “Commission *may* allow the narrowband spectrum to be used in a *flexible* manner.”²³ Congress’s intentional choice of mandatory language when authorizing the Commission to allocate the 700 MHz band to the FNA is a strong indication that the Commission’s authority is cabined strictly to the tasks

¹⁹ *Id.* § 1401(2).

²⁰ *Id.* § 1401(14). Thus, in combination with the D block, the resulting license covered the spectrum from 758-769 MHz and 788-799 MHz. Notably, earlier drafts of the statute omitted the word “existing” and referred to the non-D block portions simply as the “public safety broadband spectrum.” H.R. 3630, 112th Cong. §§ 4002(21), 4201(a) (Dec. 13, 2011). That the final version added the word “existing” is further evidence that Congress wanted to be as clear as possible about *precisely* what band of spectrum it was directing the Commission to assign to the FNA.

²¹ 47 U.S.C. § 1402.

²² *Id.* §§ 1411(a), 1421(a).

²³ *Id.* § 1412. As defined in the Act, the “narrowband spectrum” is “the portion of the electromagnetic spectrum between the frequencies from 769 megahertz to 775 megahertz and between the frequencies for 799 megahertz to 805 megahertz.” *Id.* § 1401(20).

specified in the statute. Put otherwise, Congress was clear that the Commission must reallocate the 700 MHz band—and only the 700 MHz band. The Act otherwise provides the Commission with *no* residual authority to grant additional licenses to the FNA or expand the license specifically provided for in the Act.

Purpose. Reading the 2012 Act as limited to the 700 MHz band is also consistent with Congress’s purpose in enacting the statute. Congress set out in the 2012 Act to establish the NPSBN in response to recommendations by the 9/11 Commission regarding the need to facilitate first responders’ communications in large buildings and dense urban areas.²⁴ The 700 MHz band is tailored to that purpose because its frequencies are low enough to penetrate large buildings and dense areas.²⁵ By contrast, the 4.9 GHz band does not serve this particular purpose. The 2012 Act therefore cannot be used as a basis to justify the reallocation of a different spectrum band serving different public-safety ends than those purposes underlying the 2012 Act.

Regulatory Context. Finally, the broader regulatory context confirms that the 2012 Act’s grant of authority to the Commission must be read narrowly. The Commission’s regulations consistently treat the 4.9 GHz band as reserved specifically for state, local, and nongovernmental organization (“NGO”)—not Federal—public safety users.

Binding FCC regulations provide that the 4.9 GHz band, in particular, may only be assigned to “[s]tate or local government entities” or “[n]ongovernmental organizations.”²⁶ The FNA is neither. And, in fact, in 2002, the 4.9 GHz band was specifically transferred from Federal use for public safety use by *non*-Federal entities.²⁷ In its explanation for so doing, the FCC noted that “the Commission does not license Federal entities to use non-Federal spectrum.”²⁸ And it relied specifically on a definition of “public safety services” in another statute directing it to allocate a portion of the 700 MHz band to providers of such services, which that statute defined to include only “State or local government entities” and “nongovernmental organizations.”²⁹ That

²⁴ See 158 Cong. Rec. 2088 (2012) (Statement of Sen. Leahy) (stating that the Act was inspired by “a key recommendation of the 9/11 Commission”); *The 9/11 Commission Report* at 280 (2004) (“Rescue efforts by the Fire Department of New York . . . were hampered by the inability of its radios to function in buildings as large as the Twin Towers.”).

²⁵ See 158 Cong. Rec. 2087-88 (2012) (Statement of Sen. Rockefeller) (“As to public safety provisions, [the Act] provides for the construction of a nationwide, interoperable public safety wireless broadband network. It does this using the D-Block spectrum, which is ideally located for fostering seamless communication among first responders. It will allow them to take full advantage of broadband functions in emergencies e.g., allowing firefighters to download floor plans to see inside buildings before they enter.”).

²⁶ 47 C.F.R. § 90.523. That requirement comes from a definition of “public safety services” that the regulation setting eligibility requirements for the 4.9 GHz band incorporates by cross-reference. See *id.* § 90.1203(a) (“Entities providing public safety services (as defined in § 90.523 are eligible to hold a Commission license for systems operating in the 4940-4990 MHz band.”). A Federal entity like the FNA by definition cannot be a provider of “public safety services” within the meaning of the current regulations and therefore cannot hold a license for the 4.9 GHz band.

²⁷ See generally *4.9 GHz Band Transferred from Federal Government Use*, Second Report and Order and Further Notice of Proposed Rulemaking, 17 FCC Rcd 3955 (2002) (“*Second Report and Order*”).

²⁸ *Id.* at 3973 ¶ 38.

²⁹ 47 U.S.C. § 337(f)(1)(B); see *Second Report and Order*, 17 FCC Rcd at 3970-71 ¶ 31 & n.92.

latter point again underscores the statutorily required and longstanding division of authority between the Commission and NTIA, according to which the Commission should assign frequencies for public safety use only by state, local, or NGO entities absent some express congressional authorization to the contrary.³⁰

In addition, immediately following the 2012 Act's passage, the Commission initiated a rulemaking regarding licenses for 4.9 GHz spectrum that described the 4.9 GHz spectrum as outside the Act's ambit. Specifically, the Commission noted that, "given directives in [the 2012 Act] to develop a nationwide interoperable safety broadband network," it "invit[ed] comment on how the 4.9 GHz band can best be used to *complement* this network."³¹ The Commission thus took the contemporaneous position that the 4.9 GHz band was *outside* the network the FNA administers under the 2012 Act. And the Commission continues to take that position to this day, including in the recent Seventh Report and Order. There, the Commission acknowledged that the "current licensing and regulatory regime for the 4.9 GHz band is significantly *different* from other public safety bands."³² Given the longstanding and starkly different regulatory treatment of the 4.9 GHz spectrum, Congress could not have intended to silently authorize the Commission to reallocate it to the FNA.

Additional regulations limiting Federal use of the 4.9 GHz band raise still further difficulties. For example, a Commission regulation makes any Federal use of the 4.9 GHz spectrum contingent upon "approval of the non-Federal (State/local government) licensee(s) or applicant(s) involved" for a "joint-use system."³³ This regulation has existed in materially identical form since 1998—well before Congress created the FNA—supporting the conclusion that the Act did not somehow eviscerate the prevailing framework governing the 4.9 GHz band.³⁴ Similarly, the Commission's spectrum allocation table designates the 4.9 GHz band for non-Federal use, with a limited exception for use "on a non-interference basis to authorized non-Federal

³⁰ See *supra* notes 6-11 and accompanying text; 47 U.S.C. §§ 301, 303, 305(a), 902(b)(2)(A).

³¹ *4.9 GHz Band*, 77 Fed. Reg. 45558, 45559 (Aug. 1, 2012) (emphasis added).

³² Those differences include, *inter alia*: (1) the "4.9 GHz band is shared among eligible licensees—no licensee has a right to exclusive, or interference free, access to the band"; (2) "unlike other public safety bands that only authorize operations on specific frequencies and in clearly delineated geographic areas, 4.9 GHz band licenses authorize operation on any channel over the entire 50 megahertz of the band and are generally issued for the geographic area encompassing the legal jurisdiction of the licensees"; and (3) a "4.9 GHz licensee has blanket authority to operate base stations and mobile units . . . and/or temporary (one year or less) fixed stations anywhere within its authorized area," though licensees are "also permitted to operate base stations with mobile units and temporary fixed stations outside their authorized area with the permission of the jurisdiction in which they will operate." *Seventh Report and Order*, 38 FCC Rcd at 705-06 ¶¶ 3-5 (citing 47 U.S.C. § 337(f)(1)(B); 47 C.F.R. §§ 90.20, 90.1209(a), 90.1207(a), (b)).

In any event, current regulations do not allow the FCC to authorize public safety use of the 4.9 GHz band by Federal entities. They define "public safety services," including in the 4.9 GHz band, to include use only by state, local, and NGO entities. See *supra* note 30; 47 C.F.R. §§ 90.1203(a), 90.523; 47 U.S.C. § 337(f)(1)(B).

³³ 47 C.F.R. § 2.103(b).

³⁴ See *The Development of Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010, Establishment of Rules and Requirements for Priority Access Service*, 63 Fed. Reg. 58650 (Nov. 2, 1998).

operations, [which] shall not constrain the implementation of any non-Federal operations.”³⁵ The upshot is that, to reallocate this spectrum band to the FNA, the Commission would have to extinguish the existing non-Federal primary public licenses. The 2012 Act plainly cannot be read to authorize such an extraordinary result.

B. No Other Congressional Authorization Exists that Would Empower the FCC to Assign Nationwide License of the 4.9 GHz Band to the FNA.

No other statutory provision authorizes the Commission to reallocate the 4.9 GHz band to the FNA. The FNA’s comments identify no authority beyond the 2012 Act. As for PSSA, its comments include a single paragraph referencing three provisions of the Communications Act, which purportedly establish that the “Commission clearly has the statutory authority to establish a nationwide framework for the 4.9 GHz Band, and to issue a nationwide license.”³⁶ But the cited provisions do no such thing.

The three provisions are general grants of authority that do not speak to the specific question at hand. Section 151 establishes the Commission “for the purpose of promoting safety of life and property through the use of wire and radio communications,” among other purposes.³⁷ Section 301 grants the Commission its licensing authority, including the authority to set the “terms, conditions, and periods of the license.”³⁸ And Section 303 grants the Commission several general powers and duties, some of which have to do with licensing.³⁹

“When statutes intersect, the specific statutes . . . trump the general,” and this is “particularly true where . . . Congress has enacted a comprehensive scheme and has deliberately targeted specific problems with specific solutions.”⁴⁰ These provisions may confer “broad authority to license spectrum rights,” as PSSA contends,⁴¹ but they say nothing whatever about the Commission’s authority to assign bandwidth to *Federal* entities as a category, or to the FNA in particular.⁴² Indeed, as discussed above, Section 305(a) of the Communications Act provides that “[r]adio stations belonging to and operated by the United States shall not be subject to the provisions of sections 301 and 303.”⁴³ Accordingly, the cited provisions are of no help.

PSSA additionally suggests that the provisions are relevant because, pursuant to these authorities, the “Commission has also exercised its authority to protect public safety

³⁵ 47 C.F.R. §§ 2.106(a), (e)(122).

³⁶ PSSA Comments at 12 (citing 47 U.S.C. §§ 151, 301, 303).

³⁷ 47 U.S.C. § 151.

³⁸ *Id.* § 301.

³⁹ *Id.* § 303.

⁴⁰ *Loving v. IRS*, 917 F. Supp. 2d 67, 77 (D.D.C. 2013) (quoting *RadLax Gateway Hotel, LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012)), *aff’d*, 742 F.3d 1013 (D.C. Cir. 2014).

⁴¹ *See* PSSA Comments at 12.

⁴² *See supra* Part I.A; 47 C.F.R. §§ 90.523, 90.1203.

⁴³ 47 U.S.C. § 305(a).

communications by modifying licenses after they have been assigned.”⁴⁴ But PSSA identifies just a single example of such a modification, and it is completely disanalogous to the present situation. In that instance, which occurred 20 years ago, the Commission modified licenses to protect state, local, and NGO public safety uses—not Federal public safety uses.⁴⁵ The fact that the Commission has some general authority to grant and modify licenses for public safety purposes does not authorize the grant of a nationwide license to a Federal entity that Congress created for a different purpose. Indeed, if the Commission had such sweeping authority, there would be nothing limiting the Commission to reallocating just the 4.9 GHz band to the FNA. Such authority would presumably empower the Commission to transfer any and all public safety spectrum to the FNA, which is clearly not what Congress intended.

II. The FNA Lacks Statutory Authority to Receive the 4.9 GHz Band.

In any case, even if the Commission had statutory authority to assign the 4.9 GHz band to the FNA (it does not), the FNA would not be allowed to receive it. The 2012 Act places several important restrictions on its authority that forbid the proposed expansion of the FNA’s responsibilities. The FNA’s arguments to the contrary are not persuasive.

A. The 2012 Act Cannot Be Read to Authorize the FNA to Accept the 4.9 GHz Band.

The 2012 Act confirms that the FNA’s license cannot extend to the 4.9 GHz band. The Act empowers the FNA to “hold *the single* public safety wireless license granted under section 1421.”⁴⁶ Section 1421, in turn, specifies a single band of spectrum for that license to encompass: “the 700 MHz D block spectrum and existing public safety broadband spectrum,”⁴⁷ which Section 1411 effectively consolidated into one band.⁴⁸ Current regulations confirm that the FNA may authorize use of only “channels in the 758-769 MHz and 788-799 MHz public safety bands.”⁴⁹ As a matter of plain text under the negative-implication canon, as well as under these binding regulations, the Act can only be read to authorize the FNA to receive and use the 700 MHz band, to the exclusion of all other bands. At least four important features of the statute confirm this construction:

First, Congress established the FNA, the consolidated 700 MHz public safety band, the single public safety license, and the NPSBN contemporaneously in a single statute. In other words, Congress created the FNA as a Federal entity *for the purpose* of holding the 700 MHz license and

⁴⁴ PSSA Comments at 12.

⁴⁵ *See id.* at 12-13 (citing *Improving Public Safety Communications in the 800 MHz Band*, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order, 19 FCC Rcd 14969, 14971 ¶ 1 (2004) (“*Fifth Report and Order*”).

⁴⁶ 47 U.S.C. § 1426(b)(1).

⁴⁷ *Id.* § 1421(a).

⁴⁸ *See id.* § 1411(a).

⁴⁹ 47 C.F.R. § 2.103(c).

operating the NPSBN on the frequencies that came with that license. Administering the 700 MHz public safety band is the sole purpose for which the FNA exists.

Second, Section 1426(b)—which governs the FNA’s operation of the NPSBN—includes multiple references to the 700 MHz band and its corresponding license, confirming that the two are coextensive. That subsection opens by directing the FNA to “hold the single public safety wireless license granted under section 1421. . . and take all actions necessary to ensure the building, deployment, and operation of the nationwide public safety broadband network.”⁵⁰ By mentioning the NPSBN and the 700 MHz license—alone—in the same sentence, this subsection implies that the former’s bandwidth is coextensive with the latter. Section 1426(b) goes on to direct the FNA, “[i]n carrying out the duties and responsibilities of this subsection,” to “requir[e] that equipment for use on the network be. . . capable of being used by any public safety entity and by multiple vendors across all public safety broadband networks *operating in the 700 MHz band*.”⁵¹ If Congress had contemplated an expansion of the network’s bandwidth, it would have required the equipment to be functional on any additional frequencies, not just the 700 MHz band. Moreover, Section 1426(b) provides that the NPSBN, “consistent with *the license granted under section 1421 of this title*, shall require deployment phases with substantial rural coverage milestones as part of each phase of the construction and deployment of the network.”⁵² If Congress intended the FNA eventually to hold another license, it would have required rural coverage consistent with all FNA licenses, not just the 700 MHz license.

Third, Congress created a special licensing scheme just for the FNA and just for the 700 MHz band. An ordinary FCC license lasts for a defined term, and applications to renew those licenses (like applications to initiate them) must demonstrate “that public interests, convenience, and necessity would be served thereby.”⁵³ In contrast, the FNA’s license for “the 700 MHz D block spectrum and existing public safety broadband spectrum,” *i.e.*, the 700 MHz band,⁵⁴ “shall be for an initial term of 10 years,”⁵⁵ and the Commission may renew that license only if the FNA “demonstrate[s] that, during the preceding license term, [the FNA] has met the duties and obligations set forth under” the Act.⁵⁶ If Congress intended the FNA to obtain another license, it would not have created a special licensing scheme for the FNA and specified that that scheme applies *only* to the 700 MHz band.

Fourth, Congress included a sunset provision that will terminate *all* of the FNA’s authorizations on February 22, 2027, absent reauthorization,⁵⁷ and a provision requiring the

⁵⁰ 47 U.S.C. § 1426(b)(1).

⁵¹ *Id.* § 1426(b)(2)(B)(ii) (emphasis added).

⁵² *Id.* § 1426(b)(3) (emphasis added).

⁵³ *Id.* § 307(c)(1).

⁵⁴ *Id.* § 1421(a).

⁵⁵ *Id.* § 1421(b)(1).

⁵⁶ *Id.* § 1421(b)(2).

⁵⁷ *See id.* § 1426(f). In the last Congress, a bill that would have eliminated the sunset provision and indefinitely reauthorized the FNA failed. *See* H.R. 6768, 117th Cong. (2022), <https://www.congress.gov/bill/117th-congress/house-bill/6768/all-actions?s=1&r=4>.

Government Accountability Office to make a recommendation as to reauthorization by February 22, 2022.⁵⁸ This required reauthorization is compelling evidence that Congress intended to constrain and manage the FNA’s statutorily-defined responsibilities, including by requiring Congress itself to affirmatively approve of the FNA’s continued existence after fifteen years. It would be unwise to attempt to transform the FNA’s responsibilities beyond the Act’s scope less than three years before the entire entity is set to terminate absent congressional action. The FNA has itself urged Congress that “[s]tatutory [i]ssues” regarding its continued existence must be resolved for it to continue even with its current responsibilities.⁵⁹

In short, the 2012 Act makes clear that the FNA was always intended to be a limited-purpose and time-limited Federal entity whose continuing viability would be tightly controlled by Congress and reevaluated by Congress in a relatively short timeframe. Congress could not have intended to authorize a licensee who holds a “single” license with a statutorily imposed expiration date to receive additional bands to administer on the eve of its potential expiration.

B. The FNA’s Arguments to the Contrary Lack Merit.

The FNA has argued that it “would have the authority under the 2012 Act to access and use the 4.9 GHz band spectrum for the NPSBN given the band is designated as public safety spectrum.”⁶⁰ But the provisions the FNA cites for that proposition—Sections 1426(a)(1), 1426(a)(6), and 1422(b)—are ancillary provisions related to the FNA’s administration of the 700 MHz band, and they do not expand the FNA’s powers so fundamentally.

Section 1426(a) enumerates the FNA’s “[g]eneral powers,” which include, in Section 1426(a)(1), the ability to “exercise, through the actions of its Board, all powers specifically granted by the provisions of this subchapter, *and such incidental powers as shall be necessary.*”⁶¹ The “incidental powers” referred to must be “necessary” to further the “powers specifically granted.” But the FNA has identified no specific power granted that would authorize the FNA to receive the 4.9 GHz spectrum band. For the reasons described in the previous section, no such power exists. Receiving an allocation of spectrum that would more than double the bandwidth the FNA administers cannot be merely “incidental” to the FNA’s extant responsibilities.

Section 1426(a)(6)—the final subsection in a list of the FNA’s general powers—authorizes the FNA to take “other actions” that it (through its Board) “may from time to time determine

⁵⁸ See 47 U.S.C. § 1426(g); see also U.S. Gov’t Accountability Office, GAO-22-104915, *Public-Safety Broadband Network: Congressional Action Required to Ensure Network Continuity* (“GAO Report”), at 16-22 (2022) (outlining potential options for Congress to consider in reauthorizing the FNA, including fundamental changes to the organizational structure of the FNA and the possibility of “transfer[ring] FirstNet’s responsibilities to one or more other agencies” (capitalization omitted)).

⁵⁹ FirstNet Authority Fiscal Year 2023 Annual Report to Congress, at 39 (Feb. 2024), https://www.firstnet.gov/sites/default/files/FirstNetAuthority_AnnualReport_FY2023.pdf (“Under the Act, the FirstNet authority is scheduled to terminate in February 2027, which would create a risk for continued network operations and result in a loss of service for public safety users.”).

⁶⁰ FNA Comments at 2 n.9 (citing 47 U.S.C. §§ 1422(b), 1426(a)(1), (a)(6)).

⁶¹ 47 U.S.C. § 1426(a)(1).

necessary, appropriate or advisable to accomplish the purposes of this chapter.”⁶² The scope of that power must be read in conjunction with the other enumerated responsibilities, not as an independent authorization. Indeed, subsection (a)(1) expressly states that it is tied only to the provisions of the Act.⁶³ The powers referenced in subsections (a)(2)-(5)—to hold hearings,⁶⁴ obtain grants and make contracts,⁶⁵ accept and use gifts,⁶⁶ and spend its funds⁶⁷—similarly enable the FNA to fulfill its otherwise-provided statutory obligations to administer the 700 MHz band. To the extent this residual provision confers some additional discretion on the FNA—for example, by referencing the “purposes of this chapter”—that discretion must be exercised only “from time to time” and to further the previously specified powers. This provision cannot be read to authorize the FNA to incorporate a new band of spectrum that had been designated for other public safety uses more than a decade before the 2012 Act and that Congress nowhere mentioned in the Act. Reading this catch-all provision as the FNA suggests would place the veritable elephant of all other spectrum in the mousehole of a residual provision of a statute about the 700 MHz band.⁶⁸

Finally, Section 1422(b) provides in relevant part that the NPSBN will “evol[v]e with technological advancements,” and that its radio access network must include the equipment “required to enable wireless communications with devices using the public safety broadband

⁶² Section 1426(a)(6) is situated at the end of a list of the FNA’s “[g]eneral powers”:

(1) To exercise, through the actions of its Board, all powers specifically granted by the provisions of this subchapter, and such incidental powers as shall be necessary.

(2) To hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as the First Responder Network Authority considers necessary to carry out its responsibilities and duties.

(3) To obtain grants and funds from and make contracts with individuals, private companies, organizations, institutions, and Federal, State, regional, and local agencies.

(4) To accept, hold, administer, and utilize gifts, donations, and bequests of property, both real and personal, for the purposes of aiding or facilitating the work of the First Responder Network Authority.

(5) To spend funds under paragraph (3) in a manner authorized by the Board, but only for purposes that will advance or enhance public safety communications consistent with this chapter.

(6) To take such other actions as the First Responder Network Authority (through the Board) may from time to time determine necessary, appropriate, or advisable to accomplish the purposes of this chapter.

47 U.S.C. § 1426(a).

⁶³ *See id.* § 1426(a)(1).

⁶⁴ *See id.* § 1426(a)(2).

⁶⁵ *See id.* § 1426(a)(3).

⁶⁶ *See id.* § 1426(a)(4).

⁶⁷ *See id.* § 1426(a)(5).

⁶⁸ “Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.” *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 468 (2001). In context, it is apparent that § 1426(a)(6) is a classic “residual clause,” and as such, “takes its meaning from, and is limited by, the rest of” the subsection in which it sits. *See, e.g., Chicken Ranch Rancheria of Me-Wuk Indians v. California*, 42 F.4th 1024, 1036 (9th Cir. 2022).

spectrum.”⁶⁹ The FNA essentially asks the Commission to read this “evolution” to refer to any change anywhere and to authorize any response—including the incorporation of any other spectrum that the FNA may deem consistent with “technological advancements.” But, in context, the “evol[ution]” to which the provision refers is plainly tied to “network architecture,”⁷⁰ *i.e.*, the hardware and software used to broadcast signals, not the frequencies of those signals. The subsection’s passing reference to “devices using the public safety broadband spectrum”⁷¹ cannot be read—as the FNA urges—to mean the NPSBN may include *every single frequency* those devices can receive.

The FNA’s position is essentially that it is free to accept the 4.9 GHz band without any specific statutory authorization or limitations. If that were true, the FNA’s compliance with the requirements of the Act would be a matter of grace rather than statutory compulsion: “Should the Commission decide to allow the 4.9 GHz band to be used in conjunction with the NPSBN, to the extent the FirstNet Authority uses the spectrum it would do so in accordance with the regulatory framework established under the 2012 Act.”⁷² And ultimately the FNA appeals to an atextual reliance on its “mission,” explaining that the “foundation of the FirstNet Authority’s mission is advancing public safety communications, *regardless of the particular spectrum bands leveraged for FirstNet.*”⁷³ But references to “mission” cannot overcome the basic obligation to identify some authority to receive the spectrum band in question. An appeal to “mission” cannot override Congress’s express text.

III. The FCC’s Reliance on the 2012 Act to Grant a Nationwide License to the FNA Would Violate the Major Questions Doctrine and the Nondelegation Doctrine.

Even if some of the FNA’s and PSSA’s cited authorities could be read to implicitly authorize the Commission to allocate the 4.9 GHz band to the FNA, that allocation would violate the major questions doctrine and implicate the nondelegation doctrine.

As to major questions, the FNA’s proposal would change how emergency response communications work nationwide by unilaterally reassigning an enormous band of spectrum. That is a question of “vast ‘economic and political significance.’”⁷⁴ The last time this occurred, *Congress* addressed this problem directly—in response to national debate regarding the difficulties of first response during the 9/11 attacks. The suggestion that the Commission reallocate the 4.9 GHz band nationwide would entail the Commission’s impermissibly stepping into the shoes Congress has until now filled. Moreover, the 4.9 GHz band comprises more than twice the bandwidth of the spectrum Congress allocated to the FNA in 2012. And that spectrum is worth

⁶⁹ 47 U.S.C. § 1422(b)(2)(A).

⁷⁰ *Id.* § 1422(b).

⁷¹ *Id.* § 1422(b)(2)(A).

⁷² FNA Comments at 2-3 (footnote omitted).

⁷³ *Id.* at 3.

⁷⁴ *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000)).

approximately \$15 billion, dwarfing the 700 MHz band’s value.⁷⁵ In other words, the proposed assignment would more than double the FNA’s bandwidth and would dramatically increase the value of that bandwidth overnight. Moreover, this allocation would strip autonomy from over 3,500 state, local, and NGO licensees,⁷⁶ and thereby fundamentally reorder the public-safety broadband landscape in favor of federal control. That kind of seismic shift is permissible only if the agency can “point to ‘clear congressional authorization’ for the power it claims.”⁷⁷ As discussed, there is no such authorization here. The general catch-all and ancillary power provisions that the FNA and PSSA cite are precisely the kinds of terms the Supreme Court has rejected under the major questions doctrine.⁷⁸

In any case, a statutory construction allowing the Commission to reallocate other spectrum via catch-all provisions would create a nondelegation problem. That is, were the Commission empowered to take literally any “other actions” it saw as “necessary, appropriate, or advisable to accomplish the purposes of,” the Act’s public-safety provisions,⁷⁹ that delegation would lack an “intelligible principle,”⁸⁰ and therefore violate the nondelegation doctrine. Under the canon of constitutional avoidance—which holds that a statute should be construed, where possible, in a manner that does not create a conflict with the Constitution—the Act should not be read to allow the Commission to expand the bandwidth the FNA administers whenever and however the Commission wants, without further congressional authorization.⁸¹

CONCLUSION

For the foregoing reasons, this Memorandum concludes that the Commission lacks the authority to license the 4.9 GHz band to the FNA, and the FNA lacks the authority to incorporate

⁷⁵ This \$15 billion estimate is based on recent auctions of nearly comparable spectrum, specifically Auctions 107 (C-band) and 110 (3.45-3.55 GHz). This \$15 billion figure falls well within the range of economic impacts that courts have held to trigger the major questions doctrine. See *Ala. Ass’n of Realtors v. HHS*, 141 S. Ct. 2485, 2489 (2021) (calling “\$50 billion” a “reasonable proxy” for eviction moratorium’s economic impact and holding that that triggered the major questions doctrine); *Texas v. Biden*, No. 22-cv-00004, — F. Supp. 3d —, 2023 WL 6281319, at *12 (S.D. Tex. Sept. 26, 2023) (citing \$1.7 billion impact of minimum wage for federal contractors as reason to apply major questions doctrine), *appeal docketed*, No. 23-40671 (5th Cir. Nov. 24, 2023).

⁷⁶ See *Seventh Report and Order*, 38 FCC Rcd at 707 ¶ 6.

⁷⁷ *West Virginia v. EPA*, 597 U.S. 697, 723 (2022) (quoting *Util. Air*, 573 U.S. at 324).

⁷⁸ In fact, one of the FNA’s chosen provisions, the catchall contained in Section 1426(a)(6), has never been cited in a court decision, and it appears only one time in the entire Federal Register, when the FNA cited it as authority for the far more mundane question of whether to take funding considerations into account when deciding whether to enter into a spectrum capacity lease. See *Final Interpretations of 2012 Act*, 80 Fed. Reg. at 63519 & n.72. In other words, this subsection “was designed to function as a gap filler and ha[s] rarely been used in the preceding decad[e],” and as such, cannot supply an adequately clear statement under the major questions doctrine. See *West Virginia*, 597 U.S. at 724.

⁷⁹ 47 U.S.C. § 1426(a)(6).

⁸⁰ See *Gundy v. United States*, 139 S. Ct. 2116, 2123 (2019).

⁸¹ See *Cargill v. Garland*, 57 F.4th 447, 471-72 (5th Cir. 2023) (reasoning that statutes should not be read in such a way as to create a delegation problem), *cert. granted*, 144 S. Ct. 374 (2023).

the 4.9 GHz band into the NPSBN. The Memorandum also raises additional problems with the proposed assignment.

July 8, 2024

To members of the House Communications and Technology subcommittee,

The FCC has ignored **since 2021** the DC Circuit Court of Appeals remand order to re-evaluate its wireless radiation exposure guidelines based on their docket submission of **11,000 pages of scientific evidence of biological harm to humans**. Americans might protest less against forced deployment of wireless antennas outside their bedrooms, offices, children's classrooms and local parks - if they knew the government was no longer ignoring safety.

<https://docs.fcc.gov/public/attachments/DOC-374936A1.pdf>

It has been 3 years and the FCC has done nothing in response to the Court's order. This is an important public health issue that is being ignored by our federal government.

Please ask the FCC the following questions:

1. What is the status of FCC's compliance with the DC Circuit Court of Appeals remand order of 2021 for the FCC to review the up-to-date scientific evidence in its docket on harm, including long-term exposure and exposure to children?
2. Why wouldn't the FCC want to review the up-to-date evidence so that it can reassure the public that the technology it is rolling out (e.g., 5G) is safe for children and families?

Respectfully submitted into the public record,

Cynthia Franklin, Director
Consumers for Safe Cell Phones
Bellingham, WA