

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Assessment and Collection of Regulatory Fees) MD Docket No. 21-190
for Fiscal Year 2021)

**COMMENTS OF
NEW AMERICA’S OPEN TECHNOLOGY INSTITUTE
PUBLIC KNOWLEDGE
BENTON INSTITUTE FOR BROADBAND & SOCIETY
CENTER FOR RURAL STRATEGIES
TRIBAL DIGITAL VILLAGE, SCHOOLS
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New America’s Open Technology Institute, Public Knowledge, the Benton Institute for Broadband & Society, Access Humboldt, Center for Rural Strategies, Tribal Digital Village, the Institute for Local Self Reliance, and the Schools, Health, Libraries & Broadband Coalition (together the Public Interest Spectrum Coalition, or “PISC”), hereby provide comments responding to the Commission’s Notice of Proposed Rulemaking (“NPRM”) regarding regulatory fees for the Fiscal Year of 2021.¹ Specifically, PISC urges the Commission to reject the legally flawed, infeasible and counterproductive proposal to require unlicensed spectrum users to pay regulatory fees.²

¹ Report and Order and Notice of Proposed Rulemaking, MD Docket No. 21-190 (Rel. Aug. 26, 2021), <https://docs.fcc.gov/public/attachments/FCC-21-98A1.pdf> (“NPRM”).

² *Id.* ¶ 73.

I. INTRODUCTION AND SUMMARY

Every industry trade association and lobbyist in Washington learns the late Senator Russell Long's rhyme about tax policy: "Don't tax you, don't tax me, tax that fellow behind the tree."³ Nobody likes paying regulatory fees. Since regulatory fees are a zero sum game, the only way to reduce regulatory fees assessed against one industry is to shift the fees to someone else.

The National Association of Broadcasters and State Broadcasters Associations have become wealthy and powerful by exploiting their exclusive access to scarce, licensed spectrum. They received their grants of free spectrum prior to auctions. And, understandably, they would also like to shift the burden of regulatory fees from themselves to others. The National Association of Broadcasters (NAB) and the State Broadcasters Association are merely trying to shift the burden of regulatory fees from themselves to others, as one might expect of any entity charged with fees. But the fact that this impulse is understandable does not make it permissible. Even if it were permissible as a matter of law to charge users of unlicensed spectrum regulatory fees, or to identify a class of "Big Tech" companies to charge, it would not relieve NAB or its members of regulatory fees. The broadcasters entirely ignore the reality that they themselves are among the largest beneficiaries of the value unleashed by use of unlicensed spectrum. Indeed, to the extent NAB has articulated a theory of "direct benefit" to unlicensed users, it would sweep in all NAB members, as well as manufacturers and retailers of television sets and equipment used by broadcasters.

Even if the proposed regulatory fee were permissible to impose, it would be impossible to administer. The broad number of users of "unlicensed spectrum" and the wide variety of use

³ Russell B. Long, Oxford Essential Quotations (Accessed Oct. 21, 2021), <https://www.oxfordreference.com/view/10.1093/acref/9780191866692.001.0001/q-oro-ed6-00021186>.

cases make it impossible to find an accurate and fair way to determine or distribute agency expenses assigned to unlicensed spectrum use. Most importantly, any attempt to do so would be extremely bad policy. Even if the transaction costs for users and the Commission—could be calculated, they would far exceed any benefit from such an effort.

Part II discusses the legal standard for assessing regulatory fees in light of both the statute and the non-delegation doctrine. Under existing law, unlicensed spectrum constitutes a “general benefit” for which the agency may not assess regulatory fees against a specific payor or class of payors. Nothing in the RAY BAUM’s Act changes this. Although Congress clarified that a specific payor that receives a clearly defined benefit can be assessed regulatory fees regardless of whether or not the payor has a license from the Commission, the Commission must still identify and distinguish a specific benefit different from the broad benefit received by the general public. To the extent broadcasters have identified benefits, the same benefits are enjoyed by numerous other industry sectors, including broadcasters themselves. Indeed, to the extent OET’s work to ensure that interference from devices is mitigated, it is exclusive licensees such as broadcasters that receive the clearest and most identifiable benefit.

Part III provides a more detailed explanation as to why unlicensed spectrum constitutes a general public benefit and why a fee would be contrary to the public interest. Use of unlicensed spectrum goes well beyond Wi-Fi, and well beyond “Big Tech.” This is possible because, unlike licenses for exclusive spectrum, use of unlicensed spectrum is both non-rivalrous and non-excludable. That is to say, one user using unlicensed spectrum does not deprive the other users of use. Nor can a user exclude other members of the public from using unlicensed spectrum in the same geographic area—even if the user tries. As a result, unlicensed spectrum has been adopted broadly by the general public.

Part IV explains why, given this broad use of unlicensed spectrum access by virtually everyone, it is impossible to administer a regulatory fee for unlicensed use. Unlicensed devices are so ubiquitous and use cases so varied that the transaction cost of creating and administering a system of assessments that could survive judicial scrutiny as fair would cost more than it would collect.

Finally, as **Part V** notes, the questions asked as to whether some specific class of tech companies should pay to support universal broadband access properly belongs in a proceeding dedicated to Universal Service Fund contribution reform.

II. UNLICENSED SPECTRUM IS A GENERALIZED BENEFIT TO EVERYONE AND THUS EXCLUDED FROM REGULATORY FEES.

The NAB proposal rests on a fundamental misunderstanding of the nature of unlicensed spectrum. As NAB makes clear in its filing in the 2021 fees assessment docket,⁴ NAB seems to imagine that unlicensed spectrum is similar to licensed spectrum, where companies monetize scarcity and lobby the Commission for expanded benefits to the exclusion of the public. But unlike broadcasting or CMRS or other services that depend on advertising or subscription fees for revenue, use of unlicensed spectrum, by definition, is a generalized benefit. Everyone has access. Everyone can use it as they see fit, subject to the general rules of Part 15. That is the entire point of Part 15 certification rather than exclusive licensing, or even licensing by rule. The unlicensed spectrum bands allow the entire public to share access to useful spectrum, without

⁴ Comments of the National Association of Broadcasters, MD Docket No. 21-190 (June 3, 2021), [https://ecfsapi.fcc.gov/file/106032450330305/FY2021%20Regulatory%20Fee%20Comments%20\(6.3.2021\).pdf](https://ecfsapi.fcc.gov/file/106032450330305/FY2021%20Regulatory%20Fee%20Comments%20(6.3.2021).pdf) at 12-14.

permission of a gatekeeper. Classes of devices are authorized, but individual users do not need nor receive a license.

Contrast this with the exclusive use and interference protection provided by the agency to licensees. A member of the public may use an unlicensed device in any manner, at any time, subject to the Commission's rules on power and interference.⁵ By contrast, only a licensee may use the spectrum allocated by the Commission, subject to the terms set forth in the license—including build out requirements, expiration of the license term, and holding the requisite character.⁶ Even when members of the public use a cell phone or other device on the spectrum licensed to another, they do so subject to the express permission of the licensee, and subject to the conditions imposed on the license.⁷ In fact, third parties willfully transmitting on licensed spectrum are committing a felony;⁸ enforcement of exclusivity by the U.S. Department of Justice is one of the most valuable benefits that accrue to licensees.

Users of unlicensed spectrum have long included licensees such as television manufacturers reliant on wireless remote control devices and, more recently, Smart TVs. It would include NAB members such as NBC/Comcast, ABC/Disney, and CBS/Viacom, all of whom offer streaming services that viewers receive through their wireless home networks. It would include Radio broadcasters such as NPR, who rely on streaming to reach new audiences. Indeed, the fact that NAB appears unaware of how a regulatory fee assessed against “users of unlicensed spectrum” would impact its own membership is the best argument for how ubiquitous access to unlicensed

⁵ See 47 C.F.R. § 15.5.

⁶ See generally 47 U.S.C. § 309(h).

⁷ See generally Promoting Efficient Use of Spectrum Through Elimination of Barriers to Secondary Markets, *Report and Order*, 19 FCC Rcd 17503 (2004) (licensee responsible for activity of others authorized to use licensed spectrum).

⁸ See 47 U.S.C. § 333.

spectrum is a generalized benefit to the public as a whole. Even those who claim to rely solely on licensed spectrum rely on unlicensed in countless ways, every day.

NAB suggests that the Commission could limit any assessment to “Big Tech,” but fails to provide any coherent theory as to who would qualify as “Big Tech,” or how “Big Tech” enjoys a unique, particularized benefit from the Commission that would pass Constitutional muster.⁹ Any benefit to manufacturers from the work of the Office of Engineering and Technology (OET) on certification is already paid for by the necessary application fees.¹⁰ Under NAB’s theory, companies such as Sony or Shure that manufacture televisions and wireless microphones used by broadcasters should also pay regulatory fees for the indirect benefits derived from the existence of the industry. NAB does not provide a reason why Smart TVs, which may be more numerous than laptop computers, should be exempt from the user fee it advocates.

The only specific company mentioned by NAB is Microsoft. But even here, the NAB identifies no unique benefit to Microsoft, instead merely citing annoyance that Microsoft dares to advocate positions at the Commission that run contrary to those of NAB.¹¹ If anything, it is NAB that should pay regulatory fees for OET’s work relating to TV white spaces (TVWS). The work of OET is done to protect broadcasters (and other licensed users of the band) from potential

⁹ See *National Cable Television Association v. FCC*, 554 F.2d 1094, 110-05 (D.C. Cir. 1976) (*NCTA II*).

¹⁰ See *Id.* at 1100. Commenters recognize that the interplay between Section 8 and Section 9 of the RAY BAUM’S Act has created some dispute over the extent to which the FCC can assess fees for FTEs that also process applications. Commenters’ primary point here is that manufacturers that directly benefit from the sale of products certified under Part 15 already contribute to the FCC’s operating budget and are not “free riders.”

¹¹ Comments of the National Association of Broadcasters, “Assessment and Collection of Regulatory Fees for FY 2021,” MB Docket No. 21-190 (filed June 3, 2021) (“NAB Comments”) at 12-14; Reply Comments of National Association of Broadcasters, “Assessment and Collection of Regulatory Fees for FY 2021,” MB Docket No. 21-190 (filed June 18, 2021) (“NAB Replies”).

harmful interference. The right to operate exclusively on broadcast frequencies, protected from human-generated harmful interference, *is* an exclusive right conferred by statute and the agency.¹² The expenditures traceable to OET exclusively benefit broadcast band licensees.¹³

A. *The RAY BAUM'S Act Maintains, and Telesat Canada Confirms, that the Agency Must Identify a Specific, Non-General Benefit to the Payor.*

The NAB and the State Broadcaster Associations argue that the RAY BAUM's Act and the D.C. Circuit's opinion in *Telesat Canada*,¹⁴ supports assessing regulatory fees against "Big Tech," or users of unlicensed spectrum generally. To the contrary, both the RAY BAUM's Act and *Telesat Canada* continue to reinforce the need for the Commission to identify a specific payor, and specific and unique benefits to the payor, to govern the assessment of fees. Neither NAB nor the State Broadcasters can even identify a nameable, distinct class of proposed payors, let alone identify a specific rather than generalized benefit. NAB provides no identifying features to the class of "Big Tech," or how to distinguish "Big Tech" from others (including broadcasters and TV manufacturers) who generally benefit from the Commission's Part 15 Rules governing unlicensed spectrum. The sole identifying feature that one can tease out of NAB's various filings in support of its proposal is that "Big Tech" companies advocate for rules that NAB does not like.

¹² 47 U.S.C. §§ 301, 309(h). *See also National Cable Television Association v. FCC*, 415 U.S. 336, 343-44 (1974) (*NCTA I*).

¹³ Individual consumers are protected from interference by TVWS devices under the general Part 15 regime, which requires Part 15 devices to shut down in the case of actual harmful interference with reception. The additional work that OET conducts, such as the development of database restrictions and certification of database managers, are entirely at the insistence of NAB and other licensees and provide no added benefit to individual consumers.

¹⁴ *Telesat Canada v. FCC*, 999 F.3d 707 (D.C. Cir. 2021).

As the Commission explained in the *2021 Reg Fees Order*, the Constitution imposes limits on the ability of the agency to impose regulatory fees.¹⁵ An agency may charge regulatory fees to parties that receive a special, unique benefit from the agency, otherwise the fee becomes a tax. Only Congress may levy taxes. If a regulatory fee is, in fact, a tax on a generalized benefit, the agency's action may be found to violate the Nondelegation Doctrine.¹⁶ It is not enough for the Commission to show that the payor has received some specific benefit as part of the generalized benefit to the public. The Commission must link the fee for the Commission's action specifically to the payor, showing that the benefit to the payor is distinct and clearly traceable to the FCC's actions.¹⁷ Additionally, such fees must not simply replicate the standard application fee and ensure "that the two fees do not charge the [payor] twice for the cost of the same services."¹⁸

As NAB and the State Broadcasters Association themselves argued, repeatedly, throughout the initial rulemaking, nothing in the RAY BAUM's Act changed the need to identify a distinct payor receiving a clear and distinct benefit different from a general benefit.¹⁹ Nor could it, since

¹⁵ Assessment and Collection of Regulatory Fees FY 2021, *Report & Order and Further Notice of Proposed Rulemaking*, MB Docket 21-190 (rel. August 26, 2021) ("*Reg Fees Order*") at ¶ 25.

¹⁶ *National Cable Television Ass'n v. FCC*, 415 U.S. 336, 340-41 (1974). (*NCTA I*).

¹⁷ *National Cable Television Ass'n v. FCC*, 544 F.2nd 1094, 1097 (1976) (*NCTA II*) ("the 'special benefit' concept requires some nexus between the agency and the person assessed other than the mere fact of regulation or the adoption of some practice of general benefit to the industry as a whole.")

¹⁸ *Id.* at 1100. *See also* 47 U.S.C. § 158 (instructing FCC to charge application fees as distinct from regulatory fees pursuant to 47 U.S.C. § 159). Because Section 9 requires calculation based on FTEs, the current assessment methodology undoubtedly includes some "double counting" of personnel calculated for purposes of application fees under Section 8. This is not the same thing as requiring applicants to pay the application fee twice. There must be some additional, identifiable benefit *other* than the application to trigger a fee assessment.

¹⁹ *See, e.g.*, Letter of Scott R. Flick to Marlene Dortch, Secretary, FCC, MB Docket No. 21-190 (filed August 25, 2021) (objecting to fees assessed based on broadband mapping expenses because they lack connection to broadcasters); Letter of Rick Kaplan, General Counsel and Executive Vice President Regulatory Affairs, National Association of Broadcasters, to Marlene Dortch, Secretary, FCC, MB Docket No. 21-190 (filed August 20, 2021) (same); Joint Reply

these limitations are imposed by the Constitution. Indeed, the RAY BAUM’s Act provision permitting the Commission to adjust fees based on factors “reasonably related to the benefits provided to the payor by the Commission”²⁰ reinforces the need for a clearly identified “payor” and the need for a direct benefit, clearly traceable to the Commission. To the extent broadcasters rely on the RAY BAUM’s Act changing the phrase “number of units or licensees” to simply the number of “units,” it is unclear how that helps NAB’s case. As the *Telesat* court found, the Commission did not rely on the changes to the statutory language in deciding to reverse its past precedent and assess fees on foreign satellite providers operating in the United States.²¹ But in any event, hardware and products capable of operating on unlicensed spectrum pursuant to Part 15—such as television sets, wireless remote controls, garage door openers, baby monitors, and—of course—Wi-Fi routers, are not “units” controlled by a clearly identifiable entity. This contrasts sharply with the satellites at issue in *Telesat Canada*, which the FCC found (and the court affirmed) were indistinguishable from satellites operated directly by FCC licensees.

Even if hardware capable of operating on unlicensed spectrum were “units” within the meaning of the statute, NAB does not identify how OET’s activities directly benefit the manufacturers of devices, buyers of devices, users of devices, or anyone else who might plausibly be a “payor.” As for NAB’s contention that “Big Tech” should pay because they (whoever they are) have “deep pockets” and “many of them [whoever they are] have generated over \$1 Trillion in revenue alone,”²² it is well settled law that “[a]bility to pay is frequently used

Comments of State Broadcaster Associations, MB Docket No. 21-190 (filed June 18, 2021) at 14 (same).

²⁰ *Telesat Canada* at 709.

²¹ *Id.* at 710 (“The Commission did not rely on the Ray Baum’s Act’s use of the term units rather than licensees.”)

²² NAB Comments at 15.

as a justification for levying a tax but is of very limited value in assessing a fee which is supposedly related as closely as reasonably possible to the cost of servicing each individual recipient.”²³

To the extent NAB even attempts to identify a specific payor or specific benefit, it points solely to Microsoft and its participation in various rulemakings.²⁴ NAB’s contention that participation in a Commission rulemaking is a specific benefit to anyone whose “business model” potentially benefits from adopting certain rules is an argument directly foreclosed by *NCTA II*. The Commission may not “charge for general activities which independently benefit the public at large,” such as rulemakings. It may only levy “*specific* charges for *specific* services to *specific* individuals or companies.”²⁵ If participation in rulemakings at the Commission to influence rules to support “business models” were subject to fee assessment, the NAB and its members would pay far higher fees for the privilege of urging relaxation of the broadcast ownership rules.

In other words, nothing about the RAY BAUM’s Act or the *Telesat Canada* decision cures the defectiveness of NAB’s proposal to assess regulatory fees against either all users of unlicensed spectrum or some unidentified class of “Big Tech” users. NAB cannot even define details of the proposed class or any characteristics that would ensure that an unlicensed regulatory fee would be assessed “only for those activities that are specifically identified as benefitting identifiable recipients.”²⁶

²³ *NCTA II*, 554 F.2d at 1108.

²⁴ NAB Comments at 14-16.

²⁵ *NCTA II*, 554 F.2d at 1104 (emphasis added, citation omitted).

²⁶ *Id.* at 1103 (citation omitted).

B. NAB's Theory of "Benefit" to Unlicensed Users Would Include Television Networks, Television Manufacturers, Broadcast Streamers, and Licensees Using ATSC 3.0.

As noted above, and discussed at greater length in Part II, the NAB fundamentally misunderstands the nature of unlicensed spectrum access. For one thing, NAB appears to limit unlicensed access to Wi-Fi and other uses vaguely associated with "Big Tech." As discussed in greater detail below, "unlicensed spectrum" includes products, manufacturers, businesses and users from virtually every sector of the economy. But even if we assume that the Commission could somehow limit the assessment of regulatory fees to those whose "business models" are benefitted by "Wi-Fi," it is clear that NAB and the State Broadcaster Associations have failed to consider the impact on their own members and associated businesses.

The only concrete example NAB provides for its unlicensed user fee proposal is that Microsoft participates in TVWS proceedings and that the rules requested would support Microsoft's business model.²⁷ If we apply the same test to the broadcast industry, we find that the entire broadcasting industry—both television and radio—have similar "benefits" to their "business models" from Wi-Fi in the same manner as that Microsoft does through its Airband initiative. After all, Microsoft does not even make the TVWS routers or operate the TVWS networks deployed in Airband (or elsewhere). Microsoft merely benefits from access to rural customers for its software and cloud services. If even this attenuated benefit could somehow meet the standard required under *NCTA I* and *NCTA II*, then the Commission must consider how the deployment of unlicensed spectrum devices such as Smart TVs, which are Wi-Fi enabled, provide similar "direct benefits" that "support the business model" of broadcasting.

²⁷ NAB Comments at 14-16.

It does not matter that NAB and State broadcasters oppose the positions taken by Microsoft and argue that the business of broadcasting would be improved without Commission action. As explained in *NCTA II*, the question is not whether the recipient of the benefit approves of the regulator’s action or would prefer not to need the regulator’s approval. The question is whether there is a sufficiently distinct benefit conferred on the party assessed the fee—whether the payor subjectively thinks the agency action has made things better or worse.²⁸ Accordingly, to the extent anyone in the broadcast industry that enjoys a similar “business model support” benefit as Microsoft must pay the fee for OET’s services.

To begin, virtually every television set manufactured today is now Wi-Fi capable. This enables Sony, Samsung, LG and other manufacturers to sell their televisions in the modern marketplace by dramatically expanding their use and compatibility. Thanks to Wi-Fi, the modern television is now promoted as the video screen for everything from streaming media to home security systems to Zoom calls with family. Again, it is impossible to distinguish this sort of “business model support” from the support NAB claims Microsoft receives from OET working on TVWS matters. Indeed, if anything, the case for a “direct benefit” from unlicensed spectrum is stronger for television manufacturers than for Microsoft.²⁹ Television manufacturers actually sell the Wi-Fi enabled hardware. By contrast—according to the NAB—Microsoft’s “direct benefit” is the even more attenuated benefit of greater access to rural markets from networks run by third parties, using equipment manufactured by other third parties.

²⁸ *NCTA II* at 1101-02.

²⁹ If we consider all unlicensed spectrum use and not merely Wi-Fi, the direct benefit to television manufacturers becomes even greater. Every wireless television remote control uses unlicensed spectrum.

Moving to NAB’s members, many of them offer their own streaming services. ABC/Disney provides ABC News Now, Disney+ and Hulu. NBC/Comcast provides Peacock. CBS/Viacom provides Pluto, CBSN and Paramount+, E.W. Scripps provides Newsy, and Fox provides tubi. VUit is a joint venture carrying programming from a number of group owners. Sinclair provides STIRR and is launching an OTT sports offering. Each of these streaming or download services is utterly dependent on in-home Wi-Fi to provide service to the multitude of devices on which users watch video programming. It is impossible to see how NAB can distinguish the “direct benefit” and “business model support” Wi-Fi provides to broadcast networks from the benefit to Microsoft from promoting connectivity in rural America via TVWS. Indeed, these streaming networks would enjoy *exactly the same “direct benefit”*—access to rural markets through networks in the Air Band initiative—as Microsoft does. If Microsoft must pay an unlicensed user fee for unlicensed spectrum that brings broadband to rural America, so must broadcast networks with streaming services or digital downloads. Similarly, every commercial radio or television licensee that streams its content enjoys a similar “direct benefit” from OET’s work on Wi-Fi.³⁰

Finally, advocates of ATSC 3.0 have argued that this new technology will act as “broadcast internet service.”³¹ Any broadband service offered using ATSC 3.0, like any other broadband service, will rely on Wi-Fi at the customer end—and likely in other parts of the service chain. Given NAB’s advocacy for the broadband potential of ATSC 3.0, coupled with their usual advocacy against additional fees on broadcasters, there is a certain *schadenfreude* in

³⁰ Non-commercial radio and television broadcasters would be exempt pursuant to 47 U.S.C. § 159(e)(1)(C).

³¹ Michael Balderston, “FCC Votes to Promote Broadcast Internet via ATSC 3.0,” TVTechnology (Dec. 10, 2020), <https://www.tvtechnology.com/news/fcc-promotes-deployment-of-broadcast-internet-services>.

seeing NAB hoisted by its own regulatory fees petard. But if the “supports the business model test” is to become the standard for measuring a direct, specific regulatory benefit, then any commercial licensee using ATSC 3.0 will be required to pay regulatory fees for the use of unlicensed spectrum.³²

C. If NAB’s Theory of “Benefit” Is Accepted, the FCC Must Charge Regulatory Fees to Manufacturers of Products Used by Licensees and Their Customers.

NAB’s theory that any regulatory action that supports a specific business model has additional ramifications that the NAB and the State Broadcasters Association clearly have not considered. The Commission would need to assess regulatory fees against the manufacturers of equipment used by licensees, as well as any indirect beneficiaries of licensees such as advertisers. Companies like Nokia, Shure, Hitachi, and Dolby—to name just a few—owe the opportunity to manufacture and sell broadcast equipment to the FCC’s regulation of the broadcast industry. If Microsoft or “Big Tech” enjoy a windfall from the availability of unlicensed connectivity, then companies that manufacture equipment for broadcasters and other licensees enjoy the same windfall under the same logic—their business exists as a function of the Commission’s creation of specific licensed services.

Once again, the absurdity of the argument that unlicensed spectrum creates a windfall to companies that make and sell equipment or offer services via unlicensed spectrum is made clear by this simple example.³³ If granting and regulating licenses to broadcasters is not a

³² This would, of course, be in addition to ancillary fees separately required under the statute. As the statute specifies, the ancillary fees are to compensate the public for the use of the public asset (the digital license) given the broadcasters for free. By contrast, regulatory fees assess the agency’s direct costs.

³³ Happily, the ‘if companies advocate for it since they could sell equipment, it must be a windfall’ argument has happily faded away in recent years as wireless carriers and their

windfall/direct benefit for manufacturers of television cameras, broadcast antenna manufacturers, or others who make their living from selling products associated with broadcasting, then unlicensed spectrum cannot be a windfall on its own to manufacturers of equipment that utilizes unlicensed spectrum. Alternatively, if the Commission did decide to assess regulatory fees on those who manufacture equipment or software that utilizes unlicensed spectrum, it would be required to assess similar fees on those who make equipment used by licensees.

D. To the Extent OET's Work Provides a Direct Benefit, it is to Broadcasters and Other Exclusive Licensees.

Finally, to the extent any party receives a direct and unique benefit from the work of OET in developing rules for certifying devices, it is broadcasters and other exclusive licensees. Indeed, protecting licensees from human generated harmful interference is the quintessential benefit identified since Congress first instructed the FCC and other independent agencies to collect fees. Both the Supreme Court in *NCTA I* and the D.C. Circuit in *NCTA II* pointed to this quote from Congressman Sidney Yates as capturing the “philosophy” regulatory fees:

I think it is only fair that in exchange for the franchise that the Government gives the broadcasting company *and the protection which the Government affords to such broadcasting company to assure its freedom from interference* in the operation of its broadcasting facilities in the particular point of the spectrum which it occupies, . . . it should pay some of the costs of the hearings. It is perfectly proper that the franchised company make a profit, and there has been much profit making. Such companies should assume a greater share of the costs, because regulation is necessary.

NCTA I, 415 U.S. at 343-44; *NCTA II*, 554 F.2d at 1102 (citing 97 Cong. Rec. 4809) (emphasis added).

It is not merely the permission to broadcast that Congressman Yates identified as the unique benefit conferred on broadcasters, but the work necessary by the Commission to protect

equipment manufacturers have come to see unlicensed spectrum as a tool in their toolbelt rather than a rival service option.

broadcasters (and other exclusive licensees) from interference. Nothing requires the Commission to adopt the numerous, cumbersome interference mitigation techniques that the NAB has insisted on throughout the TVWS proceeding. The Commission could simply have relied on the requirement to abate interference after the fact, just as it does for Part 15 devices operating in the FM radio broadcast bands. OET regulates certification of devices solely for the benefit of broadcasters and others with exclusive use licenses. It is these exclusive licensees who receive the clearest, most direct benefit of this regulation. Again, that NAB would prefer that the Commission not undertake this activity at all, and that it would simply prohibit any unlicensed operation in the TVWS whatsoever, is irrelevant to the question of whether this constitutes a direct benefit to licensees.³⁴

To conclude, unlicensed spectrum is the quintessential generalized benefit. It is accessible to all, on equal terms. That companies may receive indirect benefits from unlicensed spectrum is no different from the indirect benefits received from licensed spectrum. NAB has not, and indeed cannot, identify a specific class of identifiable individuals who receive the same direct benefit in the manner that foreign-licensed satellite operators authorized to provide service in the United States are a clearly identifiable group receiving a clearly identifiable, non-general benefit. That so many of NAB's own members—and related industry manufacturers and service providers—would be captured under NAB's theory of "benefit" underscores that unlicensed spectrum access is a general benefit. That companies make business plans to take advantage of the Commission's rules cannot alone transform a general benefit to a unique specific benefit.

³⁴ *NCTA II*, 554 F.2d at 1101-02.

III. GENERAL PUBLIC USE OF UNLICENSED SPECTRUM IS NOT EQUIVALENT TO A PRIVATE REGULATORY BENEFIT AND USER FEES WOULD UNDERMINE THE PUBLIC INTEREST

The characteristics and legal classification of unlicensed spectrum render it an extremely poor fit for regulatory user fees. The imposition of user fees on a non-excludable and non-rivalrous public good that enables connectivity for billions of consumer devices and virtually universal benefits to consumers and the economy would prove counterproductive and undermine the public interest.

A. Unlicensed Spectrum is a Non-Rival and Non-Excludable Public Good

First, as a matter of principle and fact, unlicensed spectrum is a public good that is open to all users on a non-exclusive basis. Imposing regulatory fees on “unlicensed spectrum users,” whatever that would mean in practice, would prove to be a counter-productive and flawed policy. Virtually all Americans benefit every day and in multiple ways from open access to unlicensed spectrum bands. Consumers, businesses of all sizes, hospitals, schools and libraries, technology companies, telecommunications providers, entertainment venues, government, and even the broadcasters represented by NAB all rely on unlicensed spectrum in critical ways. Unlicensed spectrum enables not only Wi-Fi but also Bluetooth, microphones, remote controls (e.g., for TV sets), microwave ovens, and numerous other modern-day means of connectivity that are so ubiquitous they are taken for granted. Spectrum is a natural resource owned and controlled by the public. Unlicensed use of the airwaves is a public good that should be freely and equally available to everyone, whereas the costs of granting and protecting limited licensing preferences to specific frequencies is the appropriate object of user fees.

Unlicensed spectrum has the attributes of a public good. At no level—federal, state, or local—does the government require user fees for the individual use of non-rivalrous public

goods such as street lights, sidewalks, police protection and public parks. These public goods benefit every person and entity and are not exclusively available to anyone. They also confer general benefits that are difficult if not impossible to tie to individual users. Unlike more finite natural resources, unlicensed spectrum does not pose the classic “tragedy of the commons” problem that might justify user fees to prevent depletion of a public good, or to ensure that those who value the resource most have preferential access. The Commission—and OET specifically—have over time shaped ‘rules of the road’ for the use of multiple frequency bands that benefit the general public yet require relatively little ongoing cost, except perhaps to protect a limited number of exclusive license holders from harmful interference, as noted in the previous section.

If the Commission were to impose a fee for unlicensed spectrum use, it would fundamentally alter the nature of unlicensed spectrum, transforming it from a public good into a collective good that it is non-rival, but excludable. At the margin, these user fees—even if relatively modest—would be most likely to exclude or deter low-income users and innovation that relies on very low-cost connectivity. Additionally, depending on unlicensed spectrum to generate user fees could lead the Commission in the future to view the entities collecting and remitting those fees (most likely manufacturers or retailers of devices with Wi-Fi, Bluetooth or other unlicensed connectivity) as the “licensees” whose interests should be put ahead of the general public who merely consume these services and don’t pay the agency, a tendency noted by the Congressional Research Service.³⁵

³⁵ “Economics of Federal User Fees,” Congressional Research Service (Jan. 22, 2019), <https://sgp.fas.org/crs/misc/R45463.pdf> at 7.

B. The Public Interest Benefits of Unlicensed Spectrum Are Widespread

The regulatory treatment of unlicensed spectrum literally allows any person or entity to freely access certain frequency bands for connectivity. This innovation in spectrum management has generated a rapidly expanding list of societal and economic benefits over the past two decades. Wi-Fi, Bluetooth, TV White Space devices and high-power point-to-multipoint links in unlicensed millimeter wave bands are among the most notable and impactful uses of unlicensed spectrum. Microphones and remote controls represent other everyday examples of unlicensed spectrum use used by practically every consumer and industry. The unique public interest benefits of these services is made possible because every device of a certain type (e.g., smartphones, laptops, appliances) can take advantage of a commodified interface to connectivity that is everywhere open and non-exclusionary. Imposing regulatory fees on “users” of unlicensed spectrum would change the very nature of this wildly successful option for open connectivity and undermine the use of technologies and services, such as Wi-Fi, that have become an input into almost everything related to the U.S. economy and modern society.

While there are many unlicensed devices and technologies that would be taxed under this proposal, the most ubiquitous and valuable is Wi-Fi. Wi-Fi is currently estimated to generate \$995 billion in economic value in the U.S., and that figure is projected to rise to \$1.58 trillion over the next four years.³⁶ Economic studies have found that this growing value to the U.S. economy is linked to several trends, including: “The value of free Wi-Fi to address the needs of the population that cannot afford broadband service; [t]he increasing benefits of Wi-Fi

³⁶ Catherine Sbeglia, “The global economic value of Wi-Fi will hit \$5 trillion by 2025: Report,” RCR Wireless (Feb. 4, 2021), <https://www.rcrwireless.com/20210204/network-infrastructure/wi-fi/the-global-economic-value-of-wi-fi-will-hit-5-trillion-by-2025-report>.

technology broadband speed; [a] substantial boost to the deployment of IoT technology; and [t]he growing adoption of AR/VR technology solutions.”³⁷ These tangible positive externalities are only possible due to the nature of unlicensed spectrum—available to all at no cost and free to the public.

Wi-Fi’s direct value to consumers is only a portion of its value as a public good. Seventy percent or more of total mobile device data traffic is offloaded onto Wi-Fi, reducing costs and improving throughput, particularly indoors, a share that will grow larger as consumers adopt the higher-bandwidth applications and services that characterize 5G.³⁸ Indeed, it is this producer surplus “driven by the savings enjoyed by cellular operators who rely on Wi-Fi traffic rerouting, and the profit margins of an extremely vibrant ecosystem of Wi-Fi equipment manufacturers, software developers, and systems integrators” to which Dr. Raúl Katz attributed a large share of the total economic value of Wi-Fi.³⁹ Unlicensed spectrum powers the entire connected ecosystem, not only fixed wireless broadband, but mobile as well. Indeed, while mobile carriers certainly benefit from exclusively-licensed spectrum, their customers consume most data on smartphones and other mobile devices over unlicensed spectrum. Mobile carriers benefit enormously from the perception of affordable, high-capacity, and high-quality connectivity on wireless devices that is attributable primarily to the free, publicly-available nature of unlicensed spectrum and its ability to distribute fixed broadband backhaul in most locations.

³⁷ Raúl Katz et al., “The Economic Value of Wi-Fi®: a global view (2021 – 2025),” Wi-Fi Alliance (Sep. 2021) (“Katz Report”), https://www.wi-fi.org/download.php?file=/sites/default/files/private/The_Economic_Value_of_Wi-Fi-A_Global_View_2021-2025_202109.pdf (“Katz Report”) at 34-35.

³⁸ Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2017–2022, Cisco White Paper (Feb. 2019).

³⁹ Katz Report at 35.

Wi-Fi has generated innovations that have transformed society, the economy, and numerous individual sectors. Education, farming, warehouse and office automation, healthcare, and entertainment are a few of the industries that fundamentally rely on the foundational characteristic of unlicensed spectrum as a public good.⁴⁰ Connected learning, connected warehouses streamlining complex and dangerous jobs, precision agriculture needed to effectively produce crops in a sustainable manner for the planet, and connected hospitals and telehealth are all made possible by Wi-Fi.

Education in particular has become a key beneficiary of unlicensed spectrum as schools increasingly rely on Wi-Fi for connected learning in the classroom. Blended learning in classrooms would be impracticable if every student had to connect to an ethernet cable plugged into the wall. The success of the E-Rate program and the boom in claims for Category Two funding for on-campus connectivity demonstrates the importance of Wi-Fi to modern education.⁴¹ Additionally, OTI has profiled the several school districts that have employed community Wi-Fi networks and unlicensed spectrum in the 3.5 GHz band to provide broadband connectivity necessary for remote learning during the COVID-19 pandemic.⁴² These schools were able to tap into this public resource to deploy adequate internet services to facilitate at-home education in a quick and cost-effective manner, a feat only made possible by the nature of unlicensed spectrum and its availability to all.

⁴⁰ Michael Calabrese and Amir Nasr, “The 5.9 GHz Band: Removing the Roadblock to Gigabit Wi-Fi,” New America Report (July 9, 2020), <https://www.newamerica.org/oti/reports/59-ghzband/> (“OTI 5.9 GHz Report”).

⁴¹ *Id.* at 18.

⁴² Michael Calabrese and Amir Nasr, “The Online Learning Equity Gap: Innovative Solutions to Connect All Students at Home,” New America’s Open Technology Institute Report (Nov. 17, 2020), <https://www.newamerica.org/oti/reports/online-learning-equity-gap> (“OTI E-Rate Report”).

Rural connectivity has benefitted from the availability of unlicensed spectrum during the pandemic as well. One current example is the roughly 100 wireless internet service providers (WISPs) that have relied on 5.9 GHz band spectrum during the emergency period to bolster their services to rural households. Thanks to the Special Temporary Authority (STA) grants by the Commission following the shutdowns of March 2020 to “help [WISPs] serve rural communities facing an increase in broadband needs during the COVID-19 pandemic,” 330 counties across 29 states received improved broadband access and services.⁴³ The ability to tap into this spectrum enabled WISPs to increase capacity as much as 75 percent thanks to the newly-opened access to the 5.9 GHz band.⁴⁴ As the lower 45 megahertz of this band will soon be unlicensed and officially available for public use, this example demonstrates how maintaining unlicensed spectrum as a public good provides broad-sweeping benefits to the public, as increased connectivity powers internet use at home, small businesses, schools, and other community anchor institutions. Imposing a user fee to tap into unlicensed spectrum would inhibit the public interest benefits that come from open use such as rural connectivity.

The pandemic’s widespread effects on offices nationwide—forcing work to move remote—has placed an even greater burden on Wi-Fi. A Dec. 2020 Pew survey found that 71 percent of respondents said they were currently working from home and over half—54 percent—

⁴³ FCC News Release, “FCC Grants Wireless ISPs Temporary Access to Spectrum in 5.9 GHz Band to Meet Increase in Rural Broadband Demand During Pandemic; Authority Granted to Dozens of Fixed Wireless Broadband Providers to Support Rural Telework, Remote Learning, and Telehealth” (rel. March 27, 2020) (“WISP STA”).

⁴⁴ Joan Engebretson, “WISPs See Speed Bandwidth Boosts as High as 75% Using 5.9 GHz Spectrum,” Telecompetitor (May 5, 2020), <https://www.telecompetitor.com/wisps-see-speedbandwidth-boosts-as-high-as-75-using-5-9-ghz-spectrum/>.

said they would want to continue working from home once the pandemic ends.⁴⁵ The availability of unlicensed spectrum, as a free and public good, is essential to distributing the connectivity to multiple users sharing a high-capacity fixed broadband service.

The use cases noted above will only grow in scale and importance as the Commission finalizes rules to expand unlicensed spectrum capacity in the 5.9 GHz and 6 GHz bands to support Wi-Fi 6 and 7, which will bring 5G-like capabilities to anyone with access to high-capacity internet backhaul. Imposing regulatory fees on all users of unlicensed spectrum would undermine the Commission's important strides towards securing the country's wireless future by adopting the 5.9 GHz and 6 GHz Orders to add much-needed capacity in the pursuit of one contiguous Wi-Fi superhighway.

The availability of unlicensed spectrum-as-infrastructure in rural, Tribal, and other hard-to-serve areas is another example of the general public benefits generated by unlicensed access to connectivity. TV White Spaces (TVWS) are an example, since unlicensed use of vacant TV channels allows small wireless internet service providers (WISPs) and community anchor institutions to expand wireless broadband service in unserved rural, Tribal, and other low-density and hard-to-serve areas. The availability of this spectrum offers the invisible infrastructure that can empower providers and localities to provision internet access at a lower cost than other wireline or fixed wireless options in these areas that feature obstacles that have precluded investment in broadband deployments in the past. Tribal and rural localities have benefitted from the availability of this public good to deploy broadband service in areas where carriers have

⁴⁵ Kim Parker et al., "How the Coronavirus Outbreak Has – and Hasn't – Changed the Way Americans Work," Pew Research Center (Dec. 9, 2020), <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>.

otherwise left them behind—there are numerous examples of TVWS technology extending service to hard-to-serve areas, particularly due to the characteristics of the spectrum that carry signals for long distances.⁴⁶ These localities, Tribes, and providers were only able to deploy these networks thanks to the fact that all entities have equal access to TVWS spectrum.

Bluetooth is another unlicensed technology that generates widespread benefits to the general public. Open, unlicensed access to the 2.4 GHz band provided fertile ground for the development and proliferation of Bluetooth as a low-power connectivity solution.⁴⁷ Jaap Haartsen, one of the creators of the technology, labeled the moment he learned about the 2.4 GHz band’s regulatory characteristics as the moment he knew “that this would be the way forward” for the technology.⁴⁸ Enabling device-to-device connectivity has proven to be a valuable tool that facilitates how Americans engage with work, entertainment, education, and communications services.⁴⁹ With the coming of augmented reality and virtual reality applications, Bluetooth will be increasingly important—as will be the public good upon which it depends, unlicensed spectrum. A user fee for everyone who uses Bluetooth would undermine a crucial technology for connectivity today, while also being impracticable.

⁴⁶ Reply Comments of New America’s Open Technology Institute, Public Knowledge, and Tribal Digital Village, MB Docket No. 20-74 , GN Docket No. 16-142 (Aug. 13, 2021), https://ecfsapi.fcc.gov/file/1081497127669/OTI%20PK%20TDV_DTS_Reply%20Comments%20to%20MSFT%20Ptn%20Reconsideration_FINAL_081321.pdf at 17-31.

⁴⁷ Jaap Haartsen, “How we made Bluetooth,” Nature Electronics (Dec. 13, 2018), <https://www.nature.com/articles/s41928-018-0186-x>.

⁴⁸ *Ibid.*

⁴⁹ John Herman, “Why Everything Wireless Is 2.4 GHz,” Wired (Sep. 7, 2010), <https://www.wired.com/2010/09/wireless-explainer/>.

IV. A USER FEE ON UNLICENSED SPECTRUM USE WOULD BE VIRTUALLY IMPOSSIBLE TO DEFINE OR ADMINISTER

A. Devices Using Unlicensed Spectrum are so Ubiquitous that a User Fee Would Not be Administrable

As detailed in the previous section, unlicensed spectrum use is nearly ubiquitous in modern-day society and confers widespread public benefits. Unlicensed spectrum is the essential input for Wi-Fi and Bluetooth, most wireless microphones, cordless phones, remote controls, Smart TVs, smart home tech, and numerous other remote connectivity applications operating in most homes and offices. This would involve imposing fees on billions of devices related to a wide variety of applications and industries, a user base that is growing and evolving rapidly. As a result, the proposed user fee would be uneconomic and nearly impossible to administer.

Proponents need to explain how the Commission would define and implement this user fee, including who exactly would pay it and at what rate. Would every American pay a base fee per household? Every business? Every school? How will the Commission identify and tax every user of unlicensed spectrum in the U.S., since that would include multiple fees imposed on nearly every single individual, business, community anchor institution, and general entity? Would the target revenue goal be divided equally among all devices that use unlicensed spectrum, or would the Commission design a formula that computes the fee based on the bandwidth consumed over unlicensed spectrum? How would that be measured and monitored?

Even if the Commission tailors rules that answer these questions, it is unclear who would be responsible for paying these user fees, as the Commission has no way of identifying the owner and use of unlicensed devices, since individuals require no license to operate. Moreover, as Commenters noted in Section II above, manufacturers that directly benefit from the sale of products certified under Part 15 already contribute to the FCC's operating budget and are not

“free riders.” While manufacturers or retailers could conceivably be required to remit some additional flat fee per device sold, even that option would involve wasteful transaction costs and unknown deterrent impacts on innovation across the economy.

Immense numbers of connected devices reliant on unlicensed spectrum are coming online daily. A search in the Commission’s equipment certification database for devices under the equipment classes “JBP-Part 15 Class B Computing Device Peripheral” and “JBC-Part 15 Class B Computing Device/Personal Computer” locates just shy of 70,000 records of authorized radio frequency devices that are marketed for use in residential environments.⁵⁰ Wi-Fi connectivity is incorporated into an unmanageable number of devices relative to the revenue the FCC might attempt to collect. There are more than 16 billion Wi-Fi devices in use today and more than four billion devices are delivered annually.⁵¹ The compound annual growth rate of Wi-Fi traffic using 5 GHz unlicensed is 30.2 percent and 4.4 percent in the more congested 2.4 GHz band.⁵²

On an individual level, wireless devices are ubiquitous in American life. Ron Rapasi, the acting chief of OET, estimates that the average American uses about 10 wireless devices each day.⁵³ By 2023, every individual in the country is projected to own roughly 13 Wi-Fi connected

⁵⁰ Equipment Authorization Search, Federal Communications Commission, <https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> (visited Oct. 13, 2021) (under “Equipment Information” header, define search by “Equipment Class” and from the drop-down menu select “JBP-Part 15 Class B Computing Device Peripheral” and thereafter “JBC-Part 15 Class B Computing Device/Personal Computer”).

⁵¹ “Discover Wi-Fi,” Wi-Fi Alliance, <https://www.wi-fi.org/discover-wi-fi> (visited Oct. 12, 2021).

⁵² John M. Cioffi, “State of Wi-Fi Reporting,” Assia Study, Presentation to Dynamic Spectrum Alliance 2021 Global Summit (June 8, 2021), at 12, <http://dynamicspectrumalliance.org/wp-content/uploads/2021/06/ASSIA-DSA-Summit-Presentation-v7.8.pdf> (visited Oct. 18, 2021)..

⁵³ “FCC Focused on 3.1-3.45 GHz, 6G: Rosenworcel,” Communications Daily (Oct. 13, 2021) <https://communicationsdaily.com/news/2021/10/13/FCC-Focused-on-31345-GHz-6G-Rosenworcel-2110120062>.

devices, with some devices, such as Smart TVs, enveloping large amounts of data.⁵⁴ Wi-Fi and unlicensed spectrum have become such an essential tool for accessing the internet and online services that a majority of all internet traffic traverses a Wi-Fi network.⁵⁵

Calculating and collecting a fair user fee for each of the thousands of different devices certified to operate on unlicensed spectrum is unfeasible. Further, the logistics and transaction costs related to imposing even a one-time fee on all devices using unlicensed spectrum appears wildly uneconomic. Among the many issues is how to vary the fee based on whether a type of device is typically a frequent and heavy user of unlicensed spectrum (e.g., laptops and smartphones) or, like the overwhelming majority of unlicensed devices, a secondary or incidental user (e.g., microwave ovens, low-bandwidth sensors). In 2020, the number of connected devices in homes reached 13.4 billion, which is estimated to increase another 70% over the next five years.⁵⁶ The adoption and implementation of user fees on newly-produced devices could also cause significant supply-chain disruptions that trigger both manufacturer and consumer harms.

B. The Transaction Costs of a User Fee on Unlicensed Users or Devices would be Unreasonably High Compared to the Costs Recovered and Vastly Exceed any Benefits

The administration of a reliable method to calculate, communicate and collect user fees from nearly every individual and entity nationwide—or even from the manufacturer or retailer of tens of billions of unlicensed devices—would be unreasonably high relative to the revenue

⁵⁴ “Cisco Annual Internet Report (2018–2023) White Paper,” Cisco (Mar. 9, 2020), <https://www.cisco.com/c/en/us/solutions/collateral/executive-perspectives/annual-internet-report/white-paper-c11-741490.html>.

⁵⁵ “The Future of Wi-Fi, Spectrum & Wi-Fi,” NCTA, <https://www.ncta.com/positions/spectrum-wifi> (last visited Oct. 12, 2021).

⁵⁶ The Future Telco-Connected Home, OMDIA and Broadband Forum, (Jan. 2021) https://www.broadband-forum.org/marketing/download/Broadband_Forum_The_Future_Telco-Connected_Home_Final.pdf.

collected. The task of tracking, billing, enforcing and auditing user fees paid across hundreds of industry segments and thousands of companies that sell a huge variety of devices with primary or secondary connectivity relying on unlicensed spectrum would prove significantly burdensome for the agency. The administrative apparatus the Commission would need to build to define, meter, and collect the fees would undoubtedly exceed the modest costs attributable to regulating unlicensed spectrum use.

The Commission itself has already explained why unlicensed spectrum is an ill-conceived target for user fees. In the Report & Order, the Commission rejected a proposal from NAB to implement “one or more new regulatory fee payor categories consisting of unlicensed spectrum users and/or equipment manufacturers, which under our current methodology would effectively transform OET into a ‘core bureau’ and transform OET FTEs into ‘direct’ FTEs.”⁵⁷ Even if a well-defined and manageable number of users or devices benefitted disproportionately from unlicensed connectivity, certainly OET is not equipped to administer a user fee of this magnitude, especially since the Commission correctly defines the staff’s work as “‘indirect’ activities for which all payors of regulatory fees have been responsible.”⁵⁸ The Commission should follow its own advice on this matter:

As such OET’s equipment authorization oversight requires only a portion of FTE resources, which further supports our continuing treatment of such costs as part of overall OET indirect costs as opposed to segregable direct costs, and that the Commission’s current regulatory framework does not include an easy way to distinguish devices that operate on an unlicensed (as opposed to licensed) basis. Thus, we find that, on the record before us, **creating this category does not serve the Commission’s goal of having a framework that is administrable.**⁵⁹

⁵⁷ Report & Order ¶ 21.

⁵⁸ *Id.* ¶ 23. (“We find that the record does not support a change in this treatment at this time. OET provides engineering and technical expertise to the agency and supports each of the agency’s four core bureaus.”).

⁵⁹ *Id.* ¶ 24. Emphasis added.

Further, even if the user fee were feasible, the overall costs of the tax to the Commission and society would vastly exceed any potential benefits that could come with it. As detailed above, the availability of unlicensed spectrum that serves as the foundation for Wi-Fi brings billions of dollars in economic value to the American economy and fuels modern-day work, education, and online communications generally. The COVID-19 pandemic has heightened the need for remote connectivity, as detailed by Alex Roytblat, the vice president of worldwide regulatory affairs for the Wi-Fi Alliance: “Over the last year, we have seen a marked increase in the number of wireless devices per household and an increase in volume of traffic ... and demand for localized connectivity.”⁶⁰

Taxing public access to unlicensed spectrum also creates a potential barrier to accessing or using the resource. The adoption of user fees on unlicensed connectivity would lead to those with the fewest resources—those who arguably benefit the most from Wi-Fi connectivity in particular as a free public good—incurring the greatest loss of benefit. These entities could potentially lose access to this spectrum entirely, or at best heavily restricted access. Applying user fees to unlicensed spectrum could undermine the business and innovation that is reliant on access to this spectrum. Imposing a fee that could hinder the positive externalities generated by universal direct access to unlicensed spectrum could undermine a public resource that is creating jobs, connectivity and economic activity beyond expectations. The transaction costs and opportunity losses that are likely to result from a user fee on unlicensed users or devices would certainly outstrip the recovery of any regulatory costs that could reasonably be ascribed directly to unlicensed spectrum sharing.

⁶⁰ “FCC Focused on 3.1-3.45 GHz, 6G: Rosenworcel,” Communications Daily (Oct. 13, 2021) <https://communicationsdaily.com/news/2021/10/13/FCC-Focused-on-31345-GHz-6G-Rosenworcel-2110120062>.

V. THIS PROCEEDING IS THE WRONG PLACE TO DISCUSS USF CONTRIBUTION REFORM

The *NPRM* also seeks comment on whether to assess fees against yet another undefined class of “large technology companies” for such benefits as a functioning, national broadband system. Although couched in the language of a regulatory fee assessment, what is described is clearly the Universal Service Fund. Rather than attempt to expand the contribution base under the guise of regulatory fee assessments, the Commission should address the problem of USF contribution reform in a separate proceeding.

VI. CONCLUSION

The proposal to impose a user fee on the users of unlicensed spectrum is infeasible, contradictory to the intent of the law, and dangerous to the entire wireless ecosystem. The collection of user fees on unlicensed spectrum is an inappropriate and counterproductive source for regulatory fees, and the Commission should reject this proposal. Instead, the Commission should continue its world-leading efforts to expand and strengthen public access to unlicensed spectrum as an essential foundation for improving internet access and spurring innovation.

Respectfully submitted,

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