

*Via Electronic Filing*

May 4, 2020

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

**Re: *Unlicensed White Space Device Operations in the Television Bands*  
ET Docket No. 20-36**

Dear Ms. Dortch:

Consumer Technology Association (“CTA”)<sup>1</sup> respectfully submits this letter in support of the Federal Communications Commission’s (“Commission’s”) innovative proposal to create new opportunities for unlicensed white space devices to deliver broadband services and Internet of Things (“IoT”) applications in rural and underserved communities.<sup>2</sup>

This proposal to better leverage TV white spaces for broadband access is a much-needed, critical step toward ensuring connectivity for all Americans.<sup>3</sup> As our nation’s current health

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<sup>1</sup> As North America’s largest technology trade association, CTA® is the tech sector. Our members are the world’s leading innovators—from startups to global brands—helping support more than 18 million American jobs. CTA owns and produces CES®—the largest, most influential tech event on the planet.

<sup>2</sup> *Unlicensed White Space Device Operations in the Television Bands*, Notice of Proposed Rulemaking, ET Docket No. 20-36 (rel. Mar. 2, 2020) (“NPRM”).

<sup>3</sup> Gary Shapiro, President and CEO, Consumer Technology Association, CTA Applauds FCC Decision to Use TV White Spaces for Broadband Access, CTA Press Release (Feb. 28, 2020), <https://cta.tech/Resources/Newsroom/Media-Releases/2020/February/CTA-Applauds-FCC-Decision-to-Use-TV-White-Spaces-f> (“CTA Applauds Press Release”).

crisis and stay-at-home orders highlight, every household needs access to affordable broadband to connect to work, education, entertainment, and life-saving technologies.<sup>4</sup>

New broadband options in rural areas are now more important than ever. COVID-19 has demonstrated to all of us how vast swaths of America suffer from inferior broadband. We see them left silenced, or with frozen videos in our Zoom meetings. We see their children suffering as they try to get information from narrow broadband pipes, left behind classmates with full motion video broadband, and frozen out of the many benefits of telemedicine, which allow doctors to remotely look at patients' skin, hear their coughs and see the telltale conjunctivitis in the eyes of COVID-19 sufferers.

CTA is proud that the consumer technology industry is leading the way in offering solutions to track and combat the COVID-19 virus, providing remote work solutions and education platforms, expanding digital health platforms, and enhancing the telemedicine experience, as well as entertaining and “bring[ing] a little joy to weary Americans during a very trying time.”<sup>5</sup> These solutions rely, by and large, on access to broadband.

Thanks to the leadership of Chairman Pai and the unanimous support of his fellow Commissioners, the FCC is now pursuing a cost-effective, reliable, and technology-neutral way to “bring all the benefits and opportunities of broadband to rural citizens.”<sup>6</sup> We applaud adoption of the *NPRM* and urge the Commission to adopt the proposals therein—which reflect consensus between the unlicensed and broadcast communities.

CTA has long supported use of TV white spaces as a way to connect underserved communities.<sup>7</sup> Capitalizing on the use of this spectrum could deliver connectivity to rural Americans—and rural

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<sup>4</sup> Now, more than ever, ensuring that every American has access to broadband must be a Commission priority. See, e.g., FCC Enables Rapid Deployment of Cell Sites to Support Covid-19 Medical Facility under Construction by U.S. Army Corps of Engineers in Milwaukee, Wisconsin, FCC News Release (Apr. 10, 2020), <https://docs.fcc.gov/public/attachments/DOC-363659A1.pdf> (quoting Chairman Pai that “[i]t’s vital that we keep people connected during this pandemic”); Jessica Rosenworcel (@JRosenworcel), Twitter (Apr. 24, 2020 3:00 PM), <https://twitter.com/JRosenworcel/status/1253760721420247044> (“Kids who can’t get online can’t go to school. It’s that simple right now.”).

<sup>5</sup> Gary Shapiro, President and CEO, Consumer Technology Association, CTA Statement on the CARES Act, CTA Press Release (Mar. 27, 2020), <https://www.cta.tech/Resources/Newsroom/Media-Releases/2020/April/CTA-Statement-on-House-Passage-of-CARES-Act>.

<sup>6</sup> Gary Shapiro, *Ninja Future: Secrets to Success in the New World of Innovation*, 136-37 (2018) (“*Ninja Future*”); see also CTA Applauds Press Release.

<sup>7</sup> See, e.g., Comments of the Consumer Electronics Association, ET Docket No. 02-380, at 3 (May 16, 2003) (“Technologies to determine whether spectrum is vacant are available . . . and properly configured for the TV broadcast environment, should be fully capable of protecting reception of broadcast signals.”); Comments of the Consumer Electronics Association, ET Docket No. 02-380, at 2 (Jan. 31, 2007)

Americans' IoT devices—at much lower cost than traditional deployment solutions such as fiber optic cables.<sup>8</sup> Since 2008, when the Commission first adopted rules to permit unlicensed devices to operate on unused spectrum in the TV bands, the white spaces model has proven effective with unlicensed devices successfully sharing spectrum with TV stations today.<sup>9</sup>

But 12 years and many generations of technology later, delivering broadband to households that lack access continues to be a key policy priority. The FCC aptly identified the need to revisit the rules to ensure that Americans everywhere fully benefit from this valuable spectrum resource. Innovators are developing new and creative ways to use white spaces to bring affordable connections to all parts of the country. For example, Microsoft's Airband Initiative uses unlicensed white space channels to bring broadband internet to unserved rural Americans in areas like Maryland's Garrett County, Michigan's Upper Peninsula, and the Central Valley of California.<sup>10</sup> CTA strongly supports the Commission's proposals in the *NPRM* that will help make this vision a reality.

In particular, CTA supports the proposal to increase the maximum permissible radiated power from 10 to 16 watts EIRP in "less congested" areas and to increase the maximum permissible

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("New devices operating in unused TV spectrum offer the promise of significant benefits to the public, including the potential to promote broadband Internet access, particularly in rural areas. CEA urges the FCC to take actions necessary to allow unlicensed fixed devices on unused channels within the TV bands"); Comments of the Consumer Electronics Association, GN Docket No. 12-268, at 3 (supporting a Commission proposal to preserve at least one vacant UHF channel for use by unlicensed white space devices in the 600 MHz band proceeding).

<sup>8</sup> *Ninja Future* at 136-37 ("Instead of using expensive fiber optic cables, Microsoft's bold [Rural Airband] plan uses empty channels between TV stations to deliver connectivity to more than 20 million rural Americans at much lower costs. While broadcasters are often crowded tightly using all available spectrum in urban areas, the spectrum in rural areas set aside for broadcasters is often untapped. Opening this spectrum for broadband use can bring the benefits and opportunities of broadband to rural citizens").

<sup>9</sup> *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, Second Report and Order and Memorandum Opinion and Order, 23 FCC Rcd 16807 (2008).

<sup>10</sup> See Declaration Networks Group and Microsoft announce agreement to deliver broadband internet to rural communities in Virginia and Maryland, Microsoft Press Release (Apr. 24, 2018) <https://news.microsoft.com/2018/04/24/declaration-networks-group-and-microsoft-announce-agreement-to-deliver-broadband-internet-to-rural-communities-in-virginia-and-maryland/>; Packerland Broadband and Microsoft announce agreement to deliver broadband internet to rural communities in Wisconsin and Michigan, Microsoft Press Release (Feb. 28, 2018), <https://news.microsoft.com/2018/02/25/packerland-broadband-and-microsoft-announce-agreement-to-deliver-broadband-internet-to-rural-communities-in-wisconsin-and-michigan/>; Deborah Bach, Microsoft, How high-speed internet is bringing people 'out of the dark ages' to reshape work and life in rural America, Microsoft Blog (Jan. 8, 2020), <https://blogs.microsoft.com/latinx/2020/01/08/how-high-speed-internet-is-bringing-people-out-of-the-dark-ages-to-reshape-work-and-life-in-rural-america>.

antenna height above average terrain (“HAAT”) from 250 meters to 500 meters, along with increased separation distance to protect other users in the band.<sup>11</sup> These changes are vital to enabling white space devices to extend their transmission range and provide increased service to rural communities. Likewise, the experimental licenses granted to Microsoft and the waiver granted to Deere & Company demonstrate how industries, such as agriculture and transportation, will benefit from rules that permit white space devices to operate at higher powers on a mobile platform within geo-fenced areas.<sup>12</sup>

CTA also urges the Commission to consider carefully Microsoft’s proposals on how to best modify the white space rules to facilitate the deployment of narrowband IoT devices, while providing existing licensees the same level of protection from harmful interference.

Using white spaces more efficiently and effectively “presents a valuable opportunity that could significantly change the wireless communications landscape.”<sup>13</sup> Americans’ ability to connect to communications networks and leverage their capabilities depends on the consumer technology industry, and the Commission should continue to facilitate tech innovation, like the proposed white space uses, that will connect America.

Sincerely,

/s/ Jamie Susskind

Jamie Susskind  
Vice President, Policy and Regulatory Affairs

/s/ Mike Bergman

Mike Bergman  
Vice President, Technology and Standards

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<sup>11</sup> *NPRM* ¶ 9.

<sup>12</sup> *Id.* ¶ 39.

<sup>13</sup> *Id.* Statement of Commissioner Geoffrey Starks.