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NSSimplementationplan@ntia.gov
Mr. Charles Cooper, Associate Administrator
Office of Spectrum Management
National Telecommunications and
Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

RE: National Spectrum Strategy

Dear Mr. Cooper:

The Enterprise Wireless Alliance ("EWA") is pleased to provide comments on the National Telecommunications and Information Administration ("NTIA") National Spectrum Strategy ("NSS") required by the Presidential Memorandum, *Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy*.[1] EWA is a national trade association representing more than 400 business enterprises, wireless sales and service providers, hardware and software system vendors and technology manufacturers. These firms range from small businesses to Fortune 500 organizations, including those that are engaged in delivery of electric power and other essential services, aviation, transportation, petrochemical, manufacturing, food safety and production, mining, retail, heavy construction, and other critical national industries. As a member of the National Wireless Communications Council ("NWCC"), EWA participated in NTIA Docket No. 230308-0068 earlier this year and endorsed an investigation into the nation's

[1]National Spectrum Strategy: National Spectrum Strategy | National Telecommunications and Information Administration (ntia.gov) Presidential Memorandum (PM), Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy: Memorandum on Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy | The White House ("NTIA NSS").

future spectrum requirements upon which the enhancement of the country's national and economic security rely.

> EWA concurs with NTIA's explanation of the need for the NSS:
>
> America's economy, technological leadership, and security depend on spectrum – the frequencies used to transmit radio signals for all wireless technologies. Spectrum is a strategically essential area in global technological competition, as it underpins the digital economies of the U.S. and our allies and partners. Spectrum is essential not just for everyday digital products like televisions, cell phones, and Wi-Fi routers, **but also for core infrastructure, including critical sectors like aviation, manufacturing, energy, and defense**. At the same time, spectrum is a scarce resource – that needs careful management to sustain American innovation and security.[2]

All EWA members have a direct and compelling interest in ensuring the availability of technologically and regulatorily appropriate spectrum. Some design and/or manufacture wireless equipment for use by entities, including those in the critical industry sectors identified above. Those entities deploy this equipment in private systems on licensed spectrum designed to meet what often are rigorous specifications dictated by other regulatory bodies to ensure that the goods and services for which they are responsible are made available to the American public.

As described in the NWCC Comments, EWA members operate primarily on spectrum regulated under Parts 22, 90, and 101 of the Federal Communications Commission ("FCC") rules, although they also utilize consumer-focused commercial networks for less critical operations. This FCC spectrum has been licensed intensively for decades. When systems operated in the historical analog mode, spectrum typically was shared, but the evolution to more efficient digital technology has triggered an increased need for exclusive use channels.

[2] NTIA: Fact Sheet: Biden-Harris Administration Issues Landmark Blueprint to Advance American Innovation, Competition and Security in Wireless Technologies (Nov. 13, 2023) (emphasis added).

Development of an NSS provides an opportunity for addressing the importance of spectrum to enterprise entities. These businesses are critical for meeting the day-to-day needs of the American public. They produce the electricity that powers their homes and businesses, the material goods used to feed and clothe them, and the transportation facilities that deliver those goods for the public's consumption. EWA appreciates the value of commercial networks and accessible Wi-Fi for both consumers and businesses, but an NSS should achieve a balance between those interests and the spectrum requirements of enterprise entities. Commercial, shared, and unlicensed spectrum all have a place in the wireless toolbox, yet they do not always allow private entities to design and operate systems with the coverage, security, reliability, resiliency, and operating features that support their contributions to the American economy. For these reasons, EWA welcomes the development of an NSS framework. It expects to be an ongoing contributor to what NTIA has described as a near-term and longer-term undertaking.

Pillar One of the NSS addresses the need for a "spectrum pipeline" to meet both new requirements and expanding demand. In considering those demands and requirements, EWA urges NTIA to use the broader lens that includes the enterprise entities described above. It will not be possible to "continue our Nation's economic growth, to maintain and improve our global competitiveness, and to support critical public services and missions"[3] unless the spectrum interests of those entities receive appropriate prioritization in that process.

NWCC's earlier Comments stated that the frequency bands currently allocated for private enterprise systems are not suitable for repurposing or more intensive utilization. It explained that this spectrum already supports appropriate usage levels nationwide, in both major markets and more rural areas. The uses for which this spectrum has been deployed cannot be replicated easily in other bands should these critical operations need to be moved. Further, the cost of doing so would be prohibitive and the disruption to public safety and business communications disastrous. Spectrum sharing in the Part 90 services is already

[3] NTIA NSS at 3.

accomplished through a long-established and an effective frequency coordination and licensing process. Thus, spectrum for future use by enterprise entities will need to come from other bands, none of which are under consideration at this stage of this undertaking except as noted below.

Among the bands under consideration is 7125-8400 MHz ("7 GHz Band"). The NSS states, "This 1,275 megahertz of spectrum will be studied for wireless broadband use (on a licensed and/or unlicensed basis)…."[4] It also explains that it may be challenging to repurpose portions of the band in light of the incumbent Federal operations that will require interference protection.

EWA recommends that at least a portion of the band be considered for licensed fixed wireless use by non-Federal entities, including enterprise licensees. Fixed wireless operations are an essential part of virtually all advanced wireless networks and are used for control, backhaul, and other purposes. Electric utilities are particularly dependent on fixed wireless in the management of their geographically expansive networks. Fiber is a viable alternative in certain areas but the cost of laying fiber throughout the service areas of even smaller utility networks would place a prohibitively costly, and unnecessary, burden on the electric bills of the American public.

Further, licensed fixed wireless is an optimal usage in this band as it is well-suited to protect Federal operations. These systems are coordinated for maximum spectrum efficiency with highly directional antennas between identified fixed locations. They have functioned in intensively licensed bands for decades with minimal interference and can be designed to avoid interference to protected Federal systems.

Additional licensed spectrum for fixed wireless use is particularly important, as the limited bands currently available under FCC rules are already heavily congested with little or no opportunity for expansion. High-band spectrum with broader bandwidths is increasingly used for maximum capacity in consumer-focused networks serving population-dense communities; however, it is extremely limited in transmission distance. It would not be possible to provide the coverage

[4] *Id*. at 6.

needed for pipelines, utilities, transportation, and other private systems without hops in close proximity, a configuration that would be economically unsupportable and likely impossible to achieve given Federal, state, and local requirements regarding placement of towers.

The 7 GHz Band is optimally located for non-Federal fixed wireless use. It is adjacent to the 6 GHz band that is intensively used by these entities today. A number of them have submitted field studies that challenge recent FCC decisions to allow unlicensed use of this band for Wi-Fi operations because of anticipated interference to critical utility, public safety, commercial, and other fixed wireless systems.[5] An allocation in the 7 GHz Band would allow for a relatively non-disruptive relocation process for any 6 GHz systems that have no choice but to relocate to an alternative band because of destructive interference from unlicensed, primarily consumer devices. Any such moves should be eligible for cost reimbursement under processes proposed by 6 GHz incumbents.[6]

Pillar Two of the NSS will be necessary to achievement of its goals. It is essential that all affected communities that rely on wireless spectrum, including representatives of enterprise users, be involved in the collaborative long-term planning process. EWA also endorses, indeed underscores, the critical importance of development of an evidence-based methodology in making decisions about spectrum usage. It agrees that, "Systematic and rigorous analysis of relevant data is required for the timely, evidence-based decision-making needed to best serve the public interest."[7] The Monte Carlo simulations increasingly relied upon by the FCC in its decisions have a role in making spectrum allocations. If the processes are fully transparent and reproducible, they can be a valuable first step

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[5] *See, e.g.*, Letter from Greg Kunkle, Counsel to FirstEnergy Corp., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 (filed May 9, 2023) and Attachment, EPRI, FirstEnergy 6 GHz Additive Interference Study Phase 2 -- Winter, 2023 Technical Update ("Phase 2 Study"); see also Letter from Greg Kunkle, Counsel to FirstEnergy Corp., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 (filed Oct. 12, 2022) and Attachment, EPRI, FirstEnergy 6 GHz Additive Interference Study – Public, Technical Report ("Phase 1 Study").

[6] *See* Utilities Telecommunications Coalition, et al. Petition for Rulemaking, ET Docket No. 18-295, GN Docket No. 17-183 (filed Dec. 7, 2021).

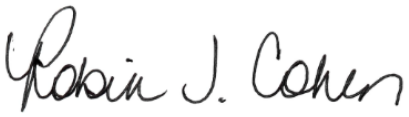
[7] NTIA NSS at 11.

in assessing the viability of spectrum alternatives. However, they should not be the only data relied upon in those decisions. Real-world studies conducted in accordance with accepted engineering techniques also should have weight in that decision-making process to produce the optimal outcome for the nation.

EWA looks forward to continued participation in development of the NTIA NSS and to working with Federal and non-Federal members of the wireless community in achieving the goals set out in it.

Respectfully submitted,

ENTERPRISE WIRELESS ALLIANCE



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