

**Before the  
NATIONAL TELECOMMUNICATIONS AND INFORMATION  
ADMINISTRATION  
Washington, D.C. 20230**

In the Matter of )  
 )  
Implementation of the National Spectrum Strategy ) Docket No. 230308-0068  
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**COMMENTS OF  
THE FREE STATE FOUNDATION\***

These comments are submitted by the Free State Foundation (FSF) to the National Telecommunications and Information Administration (NTIA) in response to its Notice of Opportunity for Public Input (Notice) on the National Spectrum Strategy (Strategy) dated November 13, 2023.<sup>1</sup> Simply put, the Strategy fails to tackle the difficult work necessary to rationally balance government and commercial demands for this high-value, limited resource. Consequently, while the headline – "this Strategy identifies five spectrum bands *totaling 2,786 megahertz of spectrum* for in-depth, near-term study to determine suitability for potential repurposing to address the nation's ever-evolving needs" (emphasis added) – at first glance may appear to represent real progress, the bottom line is that there is no guarantee that a single megahertz of that total will be repurposed. While making available sufficient unlicensed spectrum is an important objective, what is perhaps immediately concerning is the fact that the Strategy fails to identify sufficient

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\* These comments express the views of Randolph J. May, President of the Free State Foundation, and Andrew Long, Senior Fellow. The views expressed do not necessarily reflect the views of others on the staff of the Free State Foundation or those affiliated with it. The Free State Foundation is an independent, nonpartisan free market-oriented think tank located in Rockville, Maryland.

<sup>1</sup> NTIA, *Notice of Opportunity for Public Input*, In the Matter of Development of a National Spectrum Strategy, Docket No. 230308-0068 (November 15, 2023), available at <https://www.ntia.doc.gov/sites/default/files/publications/ntia-nss-implementation-public-notice.pdf>.

mid-band spectrum that could be licensed on an exclusive basis, thereby jeopardizing our nation's ability to compete effectively in the global race to 5G.

It has been nearly ten months since NTIA requested comments from the public "on the development and implementation of a National Spectrum Strategy for the United States."<sup>2</sup> In the interim, no new spectrum has been added to the pipeline – and Congress has failed to reinstate the Federal Communications Commission's (FCC or Commission) spectrum auction authority. All told, what was a pressing need in March 2023 is now a crisis.

Commercial applications demand more spectrum without further delay. Domestic mobile carriers require additional licensed capacity, particularly mid-band spectrum, to maintain their economically essential global leadership in the rollout of 5G. And even as substantial amounts of additional unlicensed spectrum have been made available in recent years, consumer demand for Wi-Fi and other unlicensed uses continues to explode. The Notice, and especially the "Memorandum on Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy" issued contemporaneously by the White House (Spectrum Policy Memorandum),<sup>3</sup> arguably represent an incremental step forward to address these spectrum deficits. However, far bolder and more timely action is needed.

In response to NTIA's March 12, 2023, Request for Comments, Free State Foundation President Randolph May and Director of Policy Studies and Senior Fellow

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<sup>2</sup> NTIA Request for Comments, "Development of a National Spectrum Strategy," Docket No. 230308-0068 (March 15, 2023), available at [https://www.ntia.gov/sites/default/files/publications/ntia\\_nss\\_fn\\_rfc\\_final.pdf](https://www.ntia.gov/sites/default/files/publications/ntia_nss_fn_rfc_final.pdf).

<sup>3</sup> See generally "Memorandum on Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy" (November 13, 2023), available at <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/11/13/memorandum-on-modernizing-united-states-spectrum-policy-and-establishing-a-national-spectrum-strategy/> (*Spectrum Policy Memorandum*).

Seth Cooper praised the stated goal "to identify at least 1,500 megahertz of spectrum for in-depth study to determine whether that spectrum can be repurposed to allow more intensive use" and urged NTIA to prioritize the exclusive licensed use of additional mid-band spectrum, starting with the 3.1 to 3.45 GHz band but moving expeditiously to the 4 GHz and 7/8 GHz bands.<sup>4</sup>

Instead, the Strategy's self-described "immediate action" (Pillar One) involves an "in-depth" study of the already studied 3.1 to 3.45 GHz band; ignores altogether the 4 GHz band; and commits to study the 7/8 GHz band for wireless broadband use on a licensed and/or unlicensed basis – but seemingly cast doubt on that effort by labeling repurposing of the band as "challenging."<sup>5</sup> Pillars Two and Three, meanwhile, appear to assume that (1) more data, and (2) not-yet-invented spectrum-sharing technologies will solve all longer-term spectrum needs.

Spectrum is a highly valuable, scarce resource – and what is required is decisive, definitive, and difficult decisionmaking. The Spectrum Policy Memorandum offers a solution to one element of this broader challenge: the prolonged uncertainty created by after-the-fact executive agency objections to FCC licensing decisions that, as Free State Foundation scholars have noted, lead to unwarranted delay and undermine the value of the spectrum at issue.<sup>6</sup>

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<sup>4</sup> See generally Randolph J. May and Seth L. Cooper, *Comments of the Free State Foundation*, In the Matter of Development of a National Spectrum Strategy, Docket No. 230308-0068 (April 17, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/04/FSF-Comments-Development-of-a-National-Spectrum-Strategy-041723.pdf> (*FSF Comments*).

<sup>5</sup> NTIA, "National Spectrum Strategy" (November 13, 2023), available at [https://www.ntia.gov/sites/default/files/publications/national\\_spectrum\\_strategy\\_final.pdf](https://www.ntia.gov/sites/default/files/publications/national_spectrum_strategy_final.pdf) (*Strategy*).

<sup>6</sup> See, e.g., Gregory J. Vogt, "Coordinated Government Decisionmaking on Spectrum Issues: It's Vital to Locating More Spectrum for 5G Use," *Perspectives from FSF Scholars*, Vol. 15, No. 32 (June 15, 2020), available at <https://freestatefoundation.org/wp-content/uploads/2020/06/Coordinated-Government-Decisionmaking-on-Spectrum-is-Vital-to-5-G-Efforts-061520.pdf>, at 1 ("In recent years, however,

The Commission's unanimous decision in April 2020 authorizing Ligado Networks to deploy a next-generation mixed mobile-satellite network in unused L-band spectrum provides a telling example of undue delay attributable to a problematical coordination process within the executive branch as well as a failure of top-level executive branch leadership. As Randolph May and Seth Cooper explained in "FCC's Order Approving Ligado's Next-Gen Wireless Network: A Deliberative Process That Protects Against Signal Interference," a May 2020 *Perspectives from FSF Scholars*:

The agency's deliberative process concerning Ligado's license applications dates back to 2011. It included public notice and comment periods in 2016 and 2018. Also, an August 2019 NTIA report expressly stated that the Commission's decision was forthcoming. And in the fall of 2019, the Commission shared a draft of its order with NTIA.<sup>7</sup>

Nevertheless, NTIA petitioned the FCC to stay its Order, an *ex post* action which ultimately was denied.<sup>8</sup> Department of Defense objections, however, continue to plague Ligado Networks to this day, prompting it to file suit in October of this year.<sup>9</sup>

Specifically, the Spectrum Policy Memorandum lends the commercial licensing process greater certainty through the creation of the Interagency Spectrum Advisory Council and establishment of clear procedures governing agency input both into FCC spectrum allocation proceedings and after the fact. These include time limits and well-

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intergovernmental coordination efforts essential to the sharing and reallocation of government-held spectrum have broken down. Moreover, executive branch agency disagreements have crept into areas that by statute fall within the exclusive authority of the FCC.").

<sup>7</sup> Randolph J. May and Seth L. Cooper, "FCC's Order Approving Ligado's Next-Gen Wireless Network: A Deliberative Process That Protects Against Signal Interference," *Perspectives from FSF Scholars*, Vol. 15, No. 25 25 (May 21, 2020), available at <https://freestatefoundation.org/wp-content/uploads/2020/05/FCCs-Order-Approving-Ligados-Next-Gen-Wireless-Network-052120.pdf>.

<sup>8</sup> See generally Seth L. Cooper, "FCC Followed a Careful Process in Approving Wireless L-Band Services," *FSF Blog* (May 26, 2021), available at <https://freestatefoundation.blogspot.com/2021/05/fcc-followed-careful-process-in.html>.

<sup>9</sup> See, e.g., Linda Hardesty, "Ligado sues U.S. government, says DoD is using its spectrum illegally," *Fierce Wireless* (October 16, 2023), available at <https://www.fiercewireless.com/5g/ligado-sues-us-government-says-dod-using-its-spectrum-illegally>.

defined processes by which disagreements are escalated to administration officials for resolution.<sup>10</sup> If implemented and followed faithfully, especially the escalation process for top-level decisionmaking, the new Council and procedures could be helpful.

Significantly, however, these improved processes only come into play *after* government-held spectrum has been reallocated for commercial use – and, as FCC Commissioner Brendan Carr has pointed out, the Strategy "does not commit to freeing up even a single MHz of spectrum."<sup>11</sup>

According to multiple studies,<sup>12</sup> the United States is at risk of falling behind other nations in terms of the amount of mid-band spectrum licensed for exclusive use.

Domestic mobile broadband carriers require an estimated additional 400 MHz in the next

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<sup>10</sup> See, e.g., *Spectrum Policy Memorandum* at Section 5 (directing the NTIA or a "disputing agency" to forward an unresolved dispute regarding NTIA's position before the FCC to various administration officials for resolution within 90 days), Section 6 (emphasizing that, "[s]ince agencies are directed to participate fully and actively in NTIA's development of positions on spectrum matters, disputes following FCC action should be rare" and requiring that agencies raise such concerns "no later than 45 days after learning of the unforeseen risk of harmful interference").

<sup>11</sup> FCC Commissioner Brendan Carr, "Carr Statement on the Biden Administration's Spectrum Miss" (November 13, 2023), available at <https://docs.fcc.gov/public/attachments/DOC-398400A1.pdf>.

<sup>12</sup> See, e.g., Seth L. Cooper, "A Strong Future for 5G Requires More Mid-Band Spectrum," *FSF Blog* (July 13, 2023), available at <https://freestatefoundation.blogspot.com/2023/07/a-strong-future-for-5g-requires-more.html> (highlighting a report released by CTIA "cit[ing] estimates that the U.S. will need at least 400 MHz of additional mid-band spectrum to supply projected demand in 5 years, and also need nearly 1,500 MHz in 10 years"), Seth L. Cooper, "Report Stresses Importance of Mid-Band Spectrum for 5G and U.S. Leadership," *FSF Blog* (June 9, 2023), available at <https://freestatefoundation.blogspot.com/2023/06/report-stresses-importance-of-mid-band.html> (describing a report by the Center for Strategic & International Studies that found that "U.S. mid-band allocations diverge from the practices of other leading economies, including China, all of which have allocated much more mid-band spectrum to 5G uses"), Seth L. Cooper, "Report: More Licensed Commercial Spectrum Needed to Avoid Looming Deficit," *FSF Blog* (May 16, 2023), available at <https://freestatefoundation.blogspot.com/2023/05/report-more-licensed-commercial.html> (referencing a Brattle Group report that concluded that "if no new spectrum bands are allocated for terrestrial mobile use in the next 5 years, then the U.S. is expected to have ... a spectrum deficit of roughly 400 megahertz. In ten years, without new mobile spectrum, ... the spectrum deficit will more than triple to approximately 1,400 megahertz"), Andrew Long, "Report on Mid-Band Spectrum: U.S. Must Act to Compete Globally," *FSF Blog* (September 22, 2022), available at <https://freestatefoundation.blogspot.com/2022/09/report-on-mid-band-spectrum-us-must-act.html> (describing an Analysys Mason report finding that "the landscape in five years is not forecast to look much better: the amount of mid-band spectrum in the U.S. should increase to 450 MHz, but that total will fall short, on average by nearly half (415 MHz), of the expected allocations in Japan (1100 MHz), the U.K. (790 MHz), and South Korea (700 MHz)").

5 years and 1,500 MHz over the next decade. Indeed, the Strategy itself references an estimate that "data traffic on macro cellular networks is expected to increase by over 250 percent in the next 5 years, and over 500 percent in the next 10 years."<sup>13</sup>

As the Free State Foundation argued in its comments to NTIA, while acknowledging the important complementary role that unlicensed spectrum plays in appropriate circumstances, "[t]he National Spectrum Strategy, to the extent feasible, should favor property rights-like policy frameworks that rely on private market competition to create incentives for investment and innovation that maximize the value of the use of spectrum."<sup>14</sup> Similarly, an approach to government-held spectrum grounded in the notion of property rights is key to ensuring that this limited resource is put to its highest and best use. Despite suggestions to do so going back several decades, however, the Strategy does not pursue a mechanism that would incentivize government agency spectrum holders to make economically efficient choices, for example, by assigning a real-world monetary value to that spectrum.<sup>15</sup> The ongoing failure to inject economic pressure into agency decisionmaking likely explains the Strategy's inability to add *any* spectrum to the pipeline in the short-term – and its fingers-crossed hope that not-yet-invented dynamic sharing technologies will save federal agencies from having to relinquish any of the spectrum in their inventory in the future.

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<sup>13</sup> *Strategy* at 4.

<sup>14</sup> *FSF Comments* at 2.

<sup>15</sup> In 2020, Senator Mike Lee (R-UT) introduced the Government Spectrum Valuation Act, which would have required NTIA to assign dollar values to government-held spectrum. *See generally* Andrew Long, "Proposed Legislation Would Incorporate Price Tags, and Economic Rigor, into Government Spectrum Discussions," *FSF Blog* (September 29, 2020), available at <https://freestatefoundation.blogspot.com/2020/09/proposed-legislation-would-incorporate.html>.

The reality, however, is that NTIA must embrace the challenging work required to identify – *and in fact repurpose* – government-held spectrum that would better serve our nation's interests were it put to commercial use, whether on a licensed or unlicensed basis. And do so in a timely manner. The Spectrum Policy Memorandum issued by the White House, by establishing hard deadlines and clear processes to resolve interagency disputes, acknowledges the need for decisive action. Unfortunately, the Strategy itself may create the illusion of progress, while merely kicking the can further down the road.

Respectfully submitted,

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