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Telecom

OBBBA's Spectrum Provisions



Issue

The One Big Beautiful Bill Act (OBBBA), signed into law on July 4, 2025, restores the spectrum auction authority of the Federal Communications Commission (FCC) through September 30, 2034 and establishes a multi-year “spectrum pipeline aimed at making at least 800 MHz of spectrum available for commercial use[.]” While targeting the mid-band spectrum between 1.3-10.5 GHz, the law carves out key national security bands at 3.1-3.45 GHz (Lower 3 GHz) and 7.4-8.4 GHz from significant portions of the FCC’s authority, especially its auction authority.



Impact

OBBBA sets an ambitious target and timeline for spectrum reallocation, but faces challenges given the carve-outs, pushback from Federal and commercial

incumbents, and technical feasibility. Because these are not greenfield spectrum bands, there are potential impacts in both the telecommunications and defense-industrial sectors as the FCC and National Telecommunications and Information Administration (NTIA) consider how to meet their pipeline requirements.

Specifically, OBBBA establishes a spectrum pipeline of at least 800 MHz through the following mechanisms:

- **Repurposing 500 MHz of Federal Spectrum:** NTIA must identify and the FCC must auction at least 500 MHz within the 1.3-10.5 GHz range (excluding Lower 3 GHz and 7.4-8.4 GHz) for “full-power” commercial use, specifically:
 - NTIA must identify at least 200 MHz of spectrum for reallocation by July 4, 2027, which the FCC must auction by July 4, 2029.
 - By July 4, 2029, NTIA must identify the remaining spectrum needed to reach the 500 MHz total, which the FCC must auction by July 4, 2033.
- **Auctioning an additional 300 MHz:** On top of the 500 MHz above, the FCC must auction at least 300 MHz before its authority expires in 2034. This must include at least 100 MHz in the Upper C-band (3.98-4.2 GHz) by July 4, 2027. The second tranche can come from any Federal, non-Federal, or shared spectrum across the entirety of the electromagnetic spectrum (excluding the Lower 3 GHz and the 7.4-8.4 GHz).
- **Funding Spectrum Studies:** The law appropriates \$50 million through fiscal year (FY) 2034 for NTIA to study the 2.7-2.9 GHz, 4.4-4.9 GHz, and 7.25-7.4 GHz bands for potential reallocation.

In practice, OBBBA poses a more complex spectrum puzzle than a simple road map. The 800 MHz goal leaves multiple possible combinations for meeting the target—all of which present challenges and particular opportunities for companies that develop and deploy systems for Federal agencies. Agencies must decide which bands to prioritize to satisfy both the 500 MHz and 300 MHz targets within the OBBBA’s staged timelines—and which systems can be relocated or replaced in a reasonable timeline and budget. While the 3 bands funded for NTIA study are logical starting points, technical, operational, and economic limitations mean their combined bandwidth will not fully meet the targets—forcing consideration of additional spectrum options.



Next Steps

We expect FCC Chairman Brendan Carr to move forward on C-Band expeditiously. One of his first moves as Chairman in February was [launching](#) a Notice of Inquiry to free up additional mid-band spectrum in the Upper C-band (3.98-4.2 GHz). OBBBA mandated that the FCC auction at least 100 MHz of the Upper C-band by July 4, 2027.

- This upcoming auction of Upper C-band will reignite conflicts over interference with aircraft altimeters. Airlines are already [voicing](#) their concerns.
- Verizon [dominated the first C-band auction](#), spending \$45.5 billion, over half the total, on the 3.70-3.98 GHz segment. Winning this block would give Verizon contiguous access of up to 500 MHz in some markets (3.70-4.20 GHz), enabling higher 5G throughput and removing the 20 MHz guard band, which simplifies radio design.

The NTIA already has funding to study 7.125-7.25 GHz from the [National Spectrum Strategy](#) making the 7.125-7.4 GHz range likely to be targeted by NTIA in the initial 2 year window.

- Notably, this band is not adjacent to any spectrum holdings of T-Mobile, AT&T, or Verizon, and does not offer the benefits of a single contiguous band. Moreover, it is bounded on the top end by the prohibition in the OBBBA on auction of 7.4-8.4 GHz (for at least the next 10 years).

The 4.4-4.9 GHz band is likely the second-best option for NTIA to make available.

- NTIA has up to \$50 million from the OBBBA to study the band.
- Additionally, this band is being teed up globally, as it is agenda item 1.7 at the World Radio Conference. Notably, however, both NATO and the Chinese have expressed concern about using this spectrum for 5G/6G use—2 groups that rarely agree.

The 2.7-2.9 GHz band is likely the last option for NTIA. Over the last 2 decades, other Federal systems have been moved into this band, making it cumbersome to move those systems again.

More Information Below

These potential additions to the commercial spectrum portfolio come against the backdrop of the FCC's proposed actions against Echostar's terrestrial licenses. A major challenge for the Commission will be ensuring that these auctions are successful—both from the perspective of the auctions closing (revenues exceed clearing costs by at least 10%) and from the perspective that Congress continues to view spectrum as a cash cow. Flooding the market with additional spectrum licenses runs the risk of depressing auction revenue and

consequently the Congressional Budget Office (CBO) score of spectrum in future budget and appropriation cycles.

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ACG Analytics

1634 I St. NW, Suite 525

Washington, DC 20006

USA

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