

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

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Transforming the 2.5 GHz Band

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WT Docket No. 18-120

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**COMMENTS OF AT&T**

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In response to the Notice of Proposed Rulemaking released on May 10, 2018,<sup>1</sup> AT&T hereby submits these comments in support of amending the Commission’s rules governing 2.5 GHz Educational Broadband Services spectrum to enable more efficient use of that spectrum.

**INTRODUCTION AND SUMMARY**

AT&T strongly supports this long-overdue re-evaluation of the Commission’s rules governing the 2.5 GHz bands known as “Educational Broadband Services” (“EBS”) spectrum. As the *Notice* recognizes, that spectrum has enormous potential value to the public today because it is highly suitable for terrestrial mobile wireless broadband services, especially next-generation 5G services. EBS spectrum, however, is presently shackled by outdated and restrictive rules from the 1960s that essentially assume the spectrum will be used by educational institutions for one-way broadcasts of pedagogical videos. Because of these antiquated restraints, about half of the EBS spectrum has never been assigned at all and lies fallow, and much of the rest is underutilized.

The *Notice* correctly recognizes that any revisions to the EBS spectrum rules should facilitate the efficient allocation of EBS spectrum to its “highest and best use,”<sup>2</sup> which in most

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<sup>1</sup> Notice of Proposed Rulemaking, *Transforming the 2.5 GHz Band*, WT Docket No. 18-120, FCC 18-59 (rel. May 10, 2018) (“*Notice*”).

<sup>2</sup> *Id.* ¶ 9.

cases today will be mobile broadband 5G services. But the *Notice* proposes two largely mutually exclusive approaches to facilitate the transition to those higher and better uses. AT&T supports one of those proposals (which relies on auctions) because it would actually facilitate the allocation of EBS to its highest and best uses. By contrast, AT&T strongly opposes the other proposal (which gives away unlicensed EBS spectrum to favored users) because it would dramatically delay and impede the allocation of EBS spectrum to its highest and best uses.

AT&T supports the set of proposals that would modify all EBS licenses to flexible use under Part 27 of the Commission's rules, rationalize the geographic areas covered by EBS licenses, and allocate EBS licenses via two simultaneous auctions: (1) a regular auction of all of the currently unlicensed EBS spectrum, and (2) an incentive auction in which current EBS licensees would have the opportunity to sell their spectrum rights. There would be huge benefits to this auctions-based approach. Most fundamentally, as Congress and the Commission have acknowledged, competitive auctions are typically the most efficient method for allocating spectrum to its highest and best use. That wisdom applies especially well here. Holding simultaneous auctions (regular and incentive auctions) that would likely put most EBS spectrum up for sale would create a unique bidding environment in which interested buyers could obtain large blocks of spectrum covering broad geographic areas. That unique bidding environment would induce greater auction participation and larger bids by mobile broadband providers, who place greater value on obtaining larger blocks of spectrum covering larger geographic areas. Greater participation would allow existing licensees (in the incentive auction) and the Treasury (in the regular auction) to realize the maximum value of that spectrum.

In addition, the use of auctions could only improve every interested entity's position relative to the status quo. Current licensees (mainly educational institutions) would not be forced

to participate in any incentive auction, but they would have that option. If they choose that option, they could use the proceeds from the sale of their licenses to fund educational initiatives that provide greater value to their communities. As to unlicensed spectrum, the Treasury would benefit because it would receive considerable revenue. And consumers would benefit from more robust 5G deployments, without having to wait for the slower, more cumbersome, and less reliable process of spectrum reallocation through secondary market transactions.

By contrast, AT&T opposes the *Notice*'s alternative proposal, in which the Commission would convert EBS spectrum to flexible use licenses, rationalize geographic boundaries, and then simply give the unlicensed spectrum away (or, at best, sell it at prices far below market value) to specified favored entities which desire it. Under this alternative, the Commission would auction only whatever currently unlicensed spectrum may be left over after the favored entities have taken the most desirable spectrum during the priority window—which would probably leave insufficient spectrum to conduct any meaningful auction at all. Moreover, this approach would deny current licensees the option to sell their spectrum through a nationwide incentive auction in a manner that would maximize its value.

The Commission should reject this approach for multiple reasons. First, as to the currently unlicensed EBS spectrum, this alternative approach would be unlawful. The Communications Act requires the Commission to enable all eligible licensees to bid for unlicensed spectrum in the Commission's inventory in open auctions, and expressly prohibits the Commission from denying any potentially eligible licensee from participating in those auctions.<sup>3</sup> Therefore, if the Commission were to modify EBS spectrum to flexible use licenses—making mobile broadband providers and others eligible to hold such licenses—the Communications Act would require the

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<sup>3</sup> 47 U.S.C. § 309(j)(17)(A).

Commission to give all such eligible entities the opportunity to bid for the unlicensed EBS spectrum, and would prohibit the Commission from simply giving those licenses away to favored entities. Second, this alternative proposal would be bad policy as to all EBS spectrum. It would delay or block the allocation of EBS spectrum to its highest and best uses, increase transactions costs, and deprive both current licensees (in an incentive auction) and the Treasury (in a regular auction) of the ability to realize maximum value for this spectrum from an open auction.

## ARGUMENT

### **I. THE COMMISSION SHOULD MAXIMIZE THE USE OF AUCTIONS, WHICH WOULD MOST EFFICIENTLY TRANSITION EBS SPECTRUM TO ITS HIGHEST VALUED USES AND BEST PROMOTE THE PUBLIC INTEREST.**

The Commission correctly acknowledges that any modification to the EBS rules should facilitate the efficient allocation of EBS spectrum to its highest valued use.<sup>4</sup> As the *Notice* states, the highest valued use for this spectrum will often be for 5G services.<sup>5</sup> Indeed, in recognition of the intense consumer interest in using this spectrum for terrestrial mobile broadband services, the Commission has already modified its rules over time to permit EBS licensees to lease spectrum capacity to mobile broadband providers.<sup>6</sup> The fact that carriers have responded to those leasing

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<sup>4</sup> See, e.g., *Notice* ¶ 9.

<sup>5</sup> See, e.g., *id.* ¶ 1 (stating that (i) 2.5 GHz spectrum “has been identified as prime spectrum for next generation mobile operations, including 5G uses,” and (ii) the purpose of the rulemaking is “to facilitate improved access to next generation wireless broadband, including 5G”).

<sup>6</sup> Since 1983, the Commission has tried to address the changing demand for this spectrum within the structure of the existing EBS rules by permitting EBS licensees to lease their excess capacity to commercial providers. *Notice* ¶¶ 2-8. Educational licensees may enter into such leases as long as the licensee retains 5 percent of the capacity for educational use (and uses each channel for at least 20 hours per week for educational purposes). See *id.* The Commission has also revised technical requirements to make EBS spectrum more usable for mobile broadband. See *id.* But these partial steps still require the industry to jump through needless hoops, creating marketplace frictions, to direct EBS spectrum to its higher valued uses. See, e.g., *id.* ¶ 5. Under this regime, half of the EBS spectrum remains unlicensed, and the other half remains underutilized. Wireless providers could more effectively realize the full value of the spectrum for consumers if they held

opportunities—despite the burdens of doing so—provides real-world proof that there is strong demand for mobile broadband as a higher valued use for this spectrum.<sup>7</sup>

The Commission and Congress have long recognized that competitive bidding is the best mechanism for quickly and efficiently allocating spectrum to its highest valued uses.<sup>8</sup> Indeed, that is why Congress has largely replaced older forms of spectrum assignment with auctions.<sup>9</sup> Accordingly, AT&T supports the proposals to revise the EBS rules to enable EBS spectrum to be efficiently allocated through the use of auctions and, only subsequently, through secondary market transactions.<sup>10</sup>

Specifically, AT&T supports the following approach for revising the EBS spectrum rules and reallocating EBS spectrum:

- For currently *unassigned* EBS spectrum, conduct a regular auction pursuant to Section 309 of the Act that is open to all qualified licensees;<sup>11</sup>

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the licenses themselves and did not have to share capacity or negotiate and manage lease terms with numerous educational institutions whose primary expertise is not mobile communications.

<sup>7</sup> Indeed, the Commission points to the “significant amounts of commercial broadband data flow[ing] through the 2.5 GHz band” as the principal reason for converting this spectrum to the flexible use standard under Part 27. *See Notice* ¶ 19; *see also id.* (stating that use of EBS for broadband confirms “the Commission’s prediction that consumer benefits will be maximized if BRS/EBS licensees are able to take advantage of the flexible use standard in Part 27”) (internal quotations omitted).

<sup>8</sup> *See, e.g.,* National Broadband Plan, at 5 (FCC rel. March 17, 2010), <https://www.fcc.gov/general/national-broadband-plan> (“Auctions for public spectrum promoted competitive wireless markets, prompting continual upgrades that first delivered mobile phones and, now, mobile broadband.”); *id.* at 81 (“Congress enabled the FCC to develop procedures for assigning hundreds of megahertz more quickly and efficiently by providing the Commission with auction authority in 1993.”); Report and Order, *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, 29 FCC Rcd. 6567, 6570, ¶ 2 (2014) (“Our central objective in designing this incentive auction is to harness the economics of demand for spectrum in order to allow market forces to determine its highest and best use.”).

<sup>9</sup> *See, e.g.,* 47 U.S.C. § 309(j).

<sup>10</sup> *See generally, Notice* ¶¶ 58-62.

<sup>11</sup> *See id.* ¶ 61.

- For currently *assigned* EBS spectrum, conduct an incentive auction open to all qualified licensees, in which current licenses can *choose* whether to participate;<sup>12</sup>
- Modify all EBS licenses to flexible use licenses under Part 27 and “eliminat[e] the educational use requirements for EBS” to enable EBS licenses to be sold to providers of 5G services and others;<sup>13</sup> and
- Enhance the attractiveness of EBS spectrum for mobile broadband services in the proposed auctions by also adopting the proposal to rationalize the boundaries of EBS licenses by converting each Geographic Service Area (“GSA”) into a single license made up of the counties it covers or intersects.<sup>14</sup>

This auctions approach will enable EBS spectrum to be promptly reallocated to its highest valued uses more quickly than the alternative proposals (discussed in the next Section, below), while still permitting fine-tuning through secondary market transactions in the future. Moreover, simultaneously conducting a regular auction for unlicensed EBS spectrum and an incentive auction for licensed EBS spectrum would have public interest benefits that could not be achieved by relying primarily on secondary market transactions. A nationwide auction would enable bidders to assemble spectrum positions from the *combined* pool of assigned and unassigned EBS licenses (via coincident and coordinated regular and incentive auctions), which would induce greater carrier participation and more vigorous bidding. As the Commission has repeatedly recognized, mobile broadband spectrum is most valuable when it can be obtained in larger contiguous blocks and

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<sup>12</sup> *See id.*

<sup>13</sup> *Id.* ¶ 22.

<sup>14</sup> *Id.* ¶¶ 11-18. The current boundaries (which are simply circles around a broadcast antenna) are arbitrary and slice randomly across all established geographic boundaries, such as counties. *See id.* ¶¶ 15-16. Today’s mobile broadband networks require extensive and granular engineering to protect against interference and other issues, and thus benefit substantially from more regular and easily identified geographic license boundaries. *See id.* Rationalizing the geographic boundaries for EBS licenses is thus an important step to maximizing the value of EBS spectrum to service providers, customers, and the public interest generally.

across large contiguous geographic areas.<sup>15</sup> A nationwide auction, in which potentially significant amounts of assigned and unassigned EBS spectrum is available, would enable mobile broadband providers to directly and efficiently bid for large contiguous blocks across large contiguous geographic areas. The ability to plan and bid for such spectrum all at once would have the effect of increasing the value of all EBS spectrum within the context of the auctions in ways that could not be replicated if the spectrum were sold over a period of years in hundreds of one-off secondary market transactions (with a few leftover scraps sold in a regular auction after the priority window process).

The use of auctions also would dramatically improve all parties' positions relative to the status quo—a win-win. Current EBS licensees could choose for themselves what they want to do with their spectrum rights: they can participate in an incentive auction or not, and they can set their minimum price for relinquishing their spectrum if they do choose to participate. Current license holders can thus keep their spectrum and continue to use it to provide educational services (if they believe that is the highest valued use), or auction it and use the proceeds to fund higher-valued projects. Either way they are better off, and so is the public interest.

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<sup>15</sup> See, e.g., *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, 29 FCC Rcd. at 6590-91, ¶ 58 (“In particular, a contiguous band plan will reduce the antenna bandwidth for 600 MHz devices, which in turn will reduce the cost and complexity of such devices”) (internal footnotes omitted); *id.* at 6597, ¶ 71 (“In short, this approach will encourage entry by providers that contemplate offering wireless broadband service on a localized basis, yet at the same time will not preclude carriers that plan to provide service on a much larger geographic scale.”). 5G in particular will benefit from large, contiguous blocks. See, e.g., Separate Statement of Commissioner Pai at 1, Notice of Inquiry, *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, 29 FCC Rcd. 13020, 13055, (2014) (“And while there is no consensus definition of 5G today, many expect that it will provide speeds ranging from one to 10 gigabits per second. To support those speeds, we will need to find wide, contiguous channels.”). See generally *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177, *Ex Parte of CTIA, Spectrum Frontiers Roadmap* (Sept. 5, 2017), at 10 (One of the building blocks for 5G is “large contiguous and complementary blocks of spectrum”).

Consumers would benefit as well. Today, relatively few people in the EBS licensed areas consume the educational programming broadcast over EBS spectrum. By contrast, were an incentive auction held, a far greater number of consumers in EBS licensed areas would benefit from the spectrum's inevitable deployment for expanded terrestrial mobile broadband services. Even the few people that currently consume educational programming over EBS spectrum would benefit from improved mobile broadband options, and in today's world they would inevitably retain access to a vast array of educational programming (delivered via broadband rather than broadcast technologies). The public would also benefit from a regular spectrum auction held for unlicensed EBS spectrum, because it would (i) accelerate the productive deployment of presently fallow EBS spectrum by those with expertise in such deployments, and (ii) would facilitate higher payments to the Treasury for the currently-unused EBS licenses, which is especially important in today's environment of federal budget deficits.<sup>16</sup>

Finally, the Commission should take additional steps to facilitate efficient EBS spectrum auctions. Most notably, a significant number of existing EBS licenses are encumbered by leases that may reduce their value to prospective bidders. The Commission should therefore determine before any auction how leases will be treated if there is a license transfer (*e.g.*, under what conditions such leases may be transitioned or perhaps terminated). To the extent the leases would remain in effect, the Commission should make the terms and conditions of existing leases available

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<sup>16</sup> The Commission also asks what impact these modifications to the rules governing EBS should have on the spectrum screen. *Notice* ¶ 24. There should be two impacts. First, these changes would clearly make all EBS spectrum “used and useful” for the provision of mobile broadband services, and thus *all* EBS spectrum should be included in the screen. Second, and equally important, the Commission should acknowledge that with current mobile broadband technologies—especially with 5G technologies—all spectrum bands have benefits and drawbacks and none is inherently uniformly superior or inferior to any other. Accordingly, the Commission should eliminate the misguided “heightened scrutiny” standard for sub-1 GHz spectrum under the screen, which is a relic of outdated mobile broadband technologies and poor public policy.

to potential bidders, pursuant to appropriate protective orders, to enable bidders to determine the proper value of spectrum encumbered by such leases.

## **II. THE COMMISSION SHOULD DECLINE TO ALLOCATE EBS SPECTRUM USING PRIORITY WINDOWS, BECAUSE THAT APPROACH WOULD BE UNLAWFUL AND CONTRARY TO THE PUBLIC INTEREST.**

The Commission should reject the alternative proposal to adopt “priority filing windows” that gives away unlicensed EBS spectrum to certain favored entities<sup>17</sup> on the flawed assumptions that the favored entities would either use the spectrum more productively than others or efficiently sell their spectrum in secondary markets. This proposal is both unlawful and bad policy.

This alternative proposal is unlawful, with respect to unlicensed EBS spectrum, because it violates Section 309(j) of the Communications Act, 47 U.S.C. § 309. Section 309(j)(1) requires the Commission to resolve multiple applications for the same spectrum using an auction,<sup>18</sup> and Section 309(j)(17) prohibits the Commission from excluding an otherwise qualified license holder from participating in any such auction.<sup>19</sup> Taken together, these provisions require the Commission to allocate unlicensed EBS spectrum in the Commission’s inventory through an auction process, and prohibits the Commission from excluding any qualified purchaser from participating in such

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<sup>17</sup> The *Notice* (¶¶ 26-48) proposes three such filing windows: The first filing window would provide access to certain EBS spectrum solely to existing license holders. The second filing window would provide access to certain EBS spectrum solely to Rural Tribal Nations. The third filing window would provide access to certain EBS spectrum solely to educational entities without an existing license. Any remaining scraps of EBS spectrum would then, and only then, be made available to other qualified purchasers via an auction.

<sup>18</sup> 47 U.S.C. § 309(j)(1) (where there are “mutually exclusive applications. . . the Commission shall grant the license or permit to a qualified applicant through a system of competitive bidding”).

<sup>19</sup> *Id.* § 309(j)(17)(A) (“Notwithstanding any other provision of the law, the Commission may not prevent a person from participating in a system of competitive bidding under this subsection if such person (i) complies with all the auction procedures and other requirements to protect the auction process established by the Commission; and (ii) either (I) meets the technical, financial, character and citizen qualifications . . .; or (II) would meet such license qualifications by means approved by the Commission prior to the grant of the license”).

auctions. Therefore, to the extent the Commission modifies Part 27 to eliminate the restrictions on the entities eligible to hold EBS spectrum, the Commission cannot, at the same time, allocate unlicensed EBS spectrum only to certain favored entities through priority filing windows. Rather, the Commission would be required to hold auctions whenever there are competing applications for the same unlicensed EBS spectrum.

In the past, proponents of excluding entities from participating in spectrum auctions have pointed to certain language in Section 309(j)(17)(B) of the Communications Act that establishes an exception to this mandatory auction principle, but that exception would not apply here.<sup>20</sup> That provision, entitled “Clarification of Authority,” merely clarifies that Section 309(j)(17)(A) is not meant to prohibit the Commission from adopting and enforcing rules of general applicability outside of the auction processes. 47 U.S.C. § 309(j)(17)(B) (“Nothing in subparagraph (A) affects any authority the Commission has to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition”). The proposed “priority filing windows” would not qualify as such rules of general applicability. Those rules would have no life outside of the allocation of currently unlicensed EBS spectrum. Their sole purpose would be to define the specific entities that are allowed to participate in the “priority” filing windows (where “priority” would mean skipping to the front of the line, ahead of what would otherwise be an auction). Section 309(j) does not give the Commission the authority to short-circuit the auction requirement by adopting a *spectrum-band-specific* rule whose only purpose is to award the licenses—for free or virtually free—to favored parties before any auction can occur.

The priority filing window proposals would also be bad policy. Holding no (or almost no) auctions would delay the allocation of this spectrum to its highest valued use—which will typically

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<sup>20</sup> See 47 U.S.C. § 309(j)(17)(B).

be for 5G service—and in many cases may result in permanent misallocations of EBS spectrum. By authorizing an auction only if and when the priority windows have expired and left some licenses unassigned, the Commission would have to rely almost entirely on secondary market transactions, plus a “cats-and-dogs” auction, to eventually steer EBS spectrum towards 5G service or other higher valued uses. Such a process could take years or never happen with sufficient scale at all.

Moreover, as explained above, providers of 5G generally place more value on spectrum if it can be purchased in larger blocks and together with other geographically contiguous spectrum, because such spectrum enables providers to offer services to customers more efficiently. Secondary market transactions, by contrast, would generally require providers to negotiate with a large number of EBS licensees—typically a different one in each small geographic area—a process that would be inefficient, expensive, and time consuming, and that may ultimately prove infeasible. Similarly, the auction of a small, random set of leftover spectrum scraps would not attract broad interest; any such auction would have a high risk of failure. The result would be that EBS spectrum would likely achieve lower prices in the secondary marketplace (harming existing EBS licensees), and in the auction as well. This approach would also result in less EBS spectrum available in large contiguous blocks, forcing 5G providers to use the spectrum less efficiently, which ultimately would harm consumers. For all of these reasons, the Commission should auction the unlicensed EBS spectrum in its inventory to benefit the Treasury, particularly in this era of federal budget deficits, rather than arbitrarily making initial assignments of this spectrum to entities that in most instances are not in a position to put the spectrum to its highest valued uses.<sup>21</sup>

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<sup>21</sup> Indeed, the *Notice* seems to recognize that the priority windows will likely result in an initial misallocation of this spectrum, because it also seeks comment on whether to deter quick “flipp[ing]” of such spectrum (at undoubtedly large profits) by imposing a holding period and

## CONCLUSION

For the foregoing reasons, the Commission should adopt the *Notice*'s auction-based proposals, as described above.

Respectfully submitted,

/s/ Alex Starr

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other use requirements. *See Notice* ¶¶ 47-48; *see also id.* ¶ 47 (seeking comment on other measures that would prevent “unjust enrichment”). But that approach would just compound the inefficiency of the priority window approach: it would give the spectrum initially to favored entities that are not in the best position to put it to its highest and best use, and then impose holding periods that further *delay* and burden the process of re-allocation to its highest valued use through secondary market transactions. The far better approach is to direct this spectrum to its highest valued use in the first instance by holding an auction open to all eligible entities. If the Commission deems it important, some of the proceeds from the auction could perhaps be redirected to support educational telecommunications initiatives; that would be a sounder way of promoting and honoring the original purposes of the EBS rules as this spectrum transitions to 5G services than piecemeal secondary market transactions.