



April 21, 2014

*Via Electronic Filing*

Gary Epstein  
Senior Advisor and Chair of the Incentive Auction Task Force  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Re: *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*,  
GN Docket No. 12-268

Dear Mr. Epstein:

The television broadcast allocations in the 600 MHz band include white space channels between channels assigned to particular broadcast licensees. Commission rules reserve two of those available channels for wireless microphone operations.<sup>1</sup> Google recommends that, in its post-auction band plan, the Commission continue its current policy of reserving broadcast-allocated channels for wireless microphone use at places and times when they are needed, but also open the same channels for unlicensed consumer device operation when microphones are not in use.<sup>2</sup> The Commission should make preservation of such channels an explicit policy in the broadcast repacking process that will accompany the incentive auction. By preserving microphone reservation opportunities while allowing non-interfering unlicensed use in the reservable channels, the Commission can recognize that microphone operations support important cultural and newsgathering functions, and at the same time free additional spectrum under the TV white space rules in 47 C.F.R. Part 15, Subpart H.

The Incentive Auction Task Force has asked for a demonstration that this recommended approach is consistent with the requirements of the Middle Class Tax and Job Relief and Job Creation Act of 2012, Pub. L. 112-96. That showing follows.

Sections 6402 and 6403 of the Act provide that the Commission may assemble spectrum for the forward auction of wireless licenses in two ways: (1) buying spectrum rights from TV broadcasters in a reverse auction and (2) reassigning existing TV band channels in order to create additional reallocation opportunities. The two options are subject to different rules. While the statute leaves the Commission relatively little discretion in reassigning the spectrum it recovers from broadcasters through the incentive auction, the Commission has vast discretion in repacking, which includes authority to preserve all existing uses of the TV band.

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<sup>1</sup> See 47 C.F.R. § 15.707(a) (requiring that two white space channels be “identified and protected in the TV bands database(s)”; 47 C.F.R. § 15.713(h)(9) (wireless microphone use of the “two reserved channels”).

<sup>2</sup> See Reply Comments of Google Inc., GN Docket No. 12-268, at 12-14 (filed Mar. 12, 2013).

*Purchased Spectrum.* Section 6402 of the Act includes new 47 U.S.C. § 309(j)(8)(G)(i), which states that broadcast spectrum may be recovered through the reverse auction “in order to permit the assignment of new initial [wireless] licenses.” The FCC therefore must include spectrum recovered through the reverse auction in the forward auction, or allocate it to uses (particularly a guard band/duplex gap) that facilitate the new wireless licenses. Compliance with this mandate is easy to verify: If a post-auction band plan establishes licensed wireless blocks that, added together with any guard bands/duplex gaps, equal or exceed the total amount of spectrum recovered in the reverse auction, then the former broadcast spectrum has been put to the required use.

*Repacking.* The rules for recovering spectrum through repacking are much less confining. Section 6403(b)(1) provides that the Commission “may” augment the amount of spectrum recovered in the reverse auction by reassigning channels “as the Commission considers appropriate,” and reallocating for licensed wireless use whatever spectrum “the Commission determines [is] available.” Under this language, the Commission need not repack the broadcast band at all. While Google does not recommend it, under the Act the FCC could auction to wireless licensees the exact same channels it recovers at auction from broadcasters, and nothing more. In that example, all white space channels would remain available for any use that is permitted under the Communications Act—which includes microphone use under Part 74 and unlicensed use under the TV white space rules.

If the Commission does choose to repack the broadcast band (as it should), there are restrictions on how tightly it may do so, but none on its ability to preserve currently authorized microphone and general unlicensed uses—much less improving the spectral efficiency of those uses, as Google proposes. Section 6403(b)(2) protects remaining broadcasters by stating that if the Commission repacks, then it “shall make all reasonable efforts to preserve, as of the date of the enactment of this Act [i.e., February 22, 2012], the coverage area and population served of each broadcast television licensee.” This is a floor on the policy considerations the Commission may take into account when repacking, not a ceiling. As long as grandfathered broadcast licensees are protected, the Commission alone determines what reassignments are “appropriate” in a repacking and what channels will be available for licensed wireless use. In this process it may consider a wide range of public interest goals. As the Commission recognized in its NPRM, among those goals is “mak[ing] a substantial amount of spectrum available for unlicensed uses, including a significant portion that would be available on a uniform nationwide basis for the first time.”<sup>3</sup>

The Commission already has taken this exact view of its authority. In its NPRM, the Commission concluded that it can dedicate remaining broadcast spectrum to protecting the signals of existing broadcast stations that were not licensed as of February 22, 2012, even though they are not guaranteed protection under the Act.<sup>4</sup> This discretionary protection of newly licensed broadcast stations could reduce the amount of licensed wireless spectrum available for the forward auction, cause the Commission to pay more to acquire the desired amount of spectrum in the reverse

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<sup>3</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Notice of Proposed Rulemaking, 27 FCC Rcd. 12357 ¶ 9 (2012).

<sup>4</sup> See *id.* at ¶¶ 113-15.

Google Inc.  
Dkt. 12-68  
April 21, 2014

auction, increase the costs of post-auction repacking, or all of the above. The law allows these outcomes.

The same is true for protecting TV white spaces, including preservation of white spaces used by wireless microphones today. Indeed, the statutory argument for protecting wireless microphone and general unlicensed uses in the 600 MHz band is stronger than the argument for protecting the new broadcast stations. Whereas Congress did not speak to the status of post-Act TV stations, it specifically addressed microphones and unlicensed use. Section 6403(i)(2) of the Act authorizes continued implementation of the Commission's TV white space rules notwithstanding any repacking of the broadcast band, while Section 6407 permits unlicensed use of guard bands/duplex gaps. Whether to fulfill Congress's expectation by protecting TV white spaces and their existing uses is a policy question the Commission should answer in the affirmative. There is no legal impediment to doing so.

This letter is being filed in the above-referenced docket for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,



Austin C. Schlick  
*Director, Communications Law*  
Google Inc.

cc: *Via Electronic Mail*  
Chairman Wheeler  
Commissioner Clyburn  
Commissioner Rosenworcel  
Commissioner Pai  
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