



*The Committee on Energy and Commerce*

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**Memorandum**

December 10, 2012

To: Members, Subcommittee on Communications and Technology

From: Majority Committee Staff

Subject: Hearing on “Keeping the New Broadband Spectrum Law on Track”

The Subcommittee on Communications and Technology will hold a hearing on Wednesday, December 12, 2012, at 10:00 a.m. in 2123 Rayburn House Office Building entitled “Keeping the New Broadband Spectrum Law on Track.”

**I. Witnesses**

One panel of witnesses will testify.

The Honorable Julius Genachowski  
Chairman, Federal Communications Commission

The Honorable Robert M. McDowell  
Commissioner, Federal Communications Commission

The Honorable Mignon Clyburn  
Commissioner, Federal Communications Commission

The Honorable Jessica Rosenworcel  
Commissioner, Federal Communications Commission

The Honorable Ajit Pai  
Commissioner, Federal Communications Commission

**II. Overview**

Implemented well, the broadcast incentive auction provisions of the Middle Class Tax Relief and Job Creation Act could raise \$7 billion for a nationwide public safety network while helping meet demand for mobile broadband services. If the FCC instead gives away large swaths of the spectrum it clears, as the agency has proposed, it runs the risk of short changing First Responders, squandering much of the legislation’s potential, and violating the act.

### **III. Background**

The Middle Class Tax Relief and Job Creation Act authorizes two kinds of “incentive auctions”—auctions in which the FCC shares proceeds with licensees that return spectrum for the FCC to repurpose and auction for wireless service. First, the act grants the FCC ongoing, general authority to hold incentive auctions in which any licensee may relinquish spectrum. Second, the act grants the FCC authority to hold a one-time, specialized incentive auction in which broadcast television stations may relinquish spectrum.

In the broadcast incentive auction, television stations may place “reverse bids” on how much compensation they would require: 1) to return all their spectrum; 2) to move from an ultra high frequency (UHF) channel to a very high frequency (VHF) channel, which typically has less desirable propagation characteristics for digital television broadcasting; or to relinquish some of their spectrum and share a channel with another station. The act further grants the FCC special authority in connection with the broadcast incentive auction to reorganize television stations that remain on air so that the FCC can better package for auction the spectrum that stations vacate.

To ensure the FCC treats stations fairly in the reorganization process, the act requires the agency to make “all reasonable efforts” to preserve their service area and forbids the agency from forcibly relocating them from a UHF channel to VHF channel. The act also requires the FCC to reimburse stations up to a total of \$1.75 billion for costs they “reasonably incur” in the reorganization. The FCC must make any such reimbursement within three years of the auction of the spectrum for wireless service. In lieu of reimbursement, stations may seek a waiver of FCC service rules to use their spectrum for non-broadcast services, so long as they continue to provide at least one free broadcast television stream. While there is no restriction on what service rules the stations may seek a waiver for, the FCC is not obligated to grant a waiver in lieu of reimbursement. The FCC is also required to take “all reasonable steps necessary” to protect the confidentiality of participating broadcasters. The FCC may decide which station bids to accept, so long as the revenues from sale of the spectrum exceeds the amount it pays stations relinquishing spectrum, the cost of the auction, and the reimbursements to broadcasters.

So that the FCC and broadcasters put their best feet forward, the act allows the FCC to conduct only one broadcast incentive auction and reorganization. Although broadcasters may also participate in an incentive auction under the FCC’s ongoing generalized authority, neither the FCC’s specialized reorganization and reimbursement authority nor the broadcasters’ specialized protections would apply. The FCC must conduct the broadcast incentive auction and any general incentive auctions by September 30, 2022.

In addition to granting the FCC broadcast and general incentive auction authority, the act requires the FCC to auction 65 megahertz of particular spectrum by February 22, 2015: the 10 megahertz H block (1915-1920 MHz and 1995-2000 MHz), 15 megahertz from the spectrum between 1675 and 1710 MHz, the 25 megahertz Advanced Wireless Services 3 block (2155-2180 MHz), and 15 additional megahertz to be identified by the FCC.

Recognizing that the nation has still not met the recommendation of the 9/11 Commission to improve First Responder communications, the act allocates up to \$7 billion of spectrum auction proceeds toward construction of a nationwide, interoperable, public safety broadband

network. It also allocates \$135 million to help States plan coordination with their own public safety communications facilities, \$300 million to the National Institute of Standards and Technology for public safety communications research and development, and \$115 million for development and deployment of next-generation 911 service.

In a September 28, 2012, notice of proposed rulemaking (NPRM), the agency proposed auctioning reclaimed broadcast spectrum in 5 MHz blocks. The uplink band—for sending signals from users to the network—would begin at 698 MHz where broadcast channel 51 is currently located, expanding downward toward channel 37. The downlink band—for sending signals from the network to the user— would begin at 608 MHz where channel 36 is currently located, also expanding downward. Broadcast stations that remain would reside below the downlink band as well as in the “duplex gap,” the space separating the uplink and downlink bands. The FCC also proposed placing two, 6 megahertz “guard bands” between the new mobile broadband spectrum and the reorganized broadcast spectrum, possibly rounding up to 10 megahertz. Guard bands are blocks of restricted-use spectrum interposed between two uses to prevent interference.

In the NPRM, the FCC suggests it would give away for nationwide, unlicensed use, the two guard bands; spectrum in the duplex gap; spectrum from channel 37; and spectrum currently used by wireless microphones; as well as spectrum that it clears on less than a nationwide basis.<sup>1</sup> On the same day that the FCC adopted the NPRM on act implementation, it also adopted an NPRM on spectrum aggregation, seeking comment on whether the agency should restrict the amount of spectrum that entities could acquire in auctions mandated by the act.<sup>2</sup>

#### **IV. Discussion**

Auction Requirement. Giving away large swaths of spectrum for unlicensed use could deprive public safety officials and taxpayers of billions of dollars. A five megahertz, nationwide block of this spectrum could be worth more than \$1 billion, based on recent Congressional Budget Office valuations of similar frequencies. Moreover, before the FCC makes a single penny, it must pay stations that relinquish spectrum or that the agency relocates. If the agency is going to have anything left to provide \$7 billion for the public safety network, \$135 million for State planning, \$300 million for research and development, and \$115 million for next generation 911, it cannot afford to give away spectrum, especially since we cannot know in advance how much spectrum broadcasters will relinquish. In the current fiscal climate, the FCC should also be striving to raise additional revenue to offset potential budget cuts or reduce the deficit.

Giving away large swaths of spectrum would also violate the statute. The plain language of sections 6403(a)(1), (b)(1), and (c)(1) require the FCC to auction all the spectrum it makes available either by repurposing spectrum that stations relinquish or reorganizing stations that remain. That is the case whether the FCC makes the spectrum available for licensed or unlicensed use. It is true that section 6407(a) states nothing in section 6403 shall be construed to prevent the Commission from implementing band plans with guard bands and that section

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<sup>1</sup>See *In re* Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Docket No 12-268, *NPRM*, FCC 12-118, at ¶¶ 176, 178, 199, 237, 238, 174 (rel. Oct. 2, 2012).

<sup>2</sup>See *In re* Policies Regarding Mobile Spectrum Holdings, WT Docket No. 12-269, *NPRM*, FCC 12-119, at ¶ 21 (rel. Sept. 28, 2012).

6407(c) states the Commission may permit unlicensed use of such guard bands. But auctioning spectrum does not prevent the FCC from implementing band plans with guard bands or allowing unlicensed use within them. The FCC has auctioned guard bands in the past and raised half a billion dollars, even though those guard bands included lesser amounts of less valuable spectrum than the FCC is proposing to use for guard bands here.<sup>3</sup> And unlicensed use can take place in spectrum auctioned to a band manager, in spectrum explicitly auctioned for unlicensed use, or on a secondary basis in spectrum auctioned for licensed use, as FCC staff has discussed in the past.<sup>4</sup> Consequently, construing section 6403 as mandating that the FCC auction all the spectrum it clears, as a plain reading of the language requires, is perfectly consistent with section 6407.

Guard Band Size. Artificially increasing the size of guard bands to accommodate unlicensed use will reduce revenues and do less to meet broadband demand. Guard band restrictions—typically reductions in permitted power levels—make guard bands less useful for robust broadband services over long distances. As a result, while guard bands have value, they typically raise less at auction than non-guard band spectrum. And they would of course raise no revenue if the FCC gives them away. To the extent larger guard bands would steal spectrum from other blocks of spectrum, they will reduce the value of those blocks, as well.

Such artificial expansion is also unnecessary. Section 6403(i) makes clear that the FCC’s White Spaces Order will continue to apply to unused television broadcast spectrum after the incentive auction, and there will be plenty remaining, as even the FCC acknowledges.<sup>5</sup> Moreover, section 6406 identifies an additional 195 megahertz of spectrum above 5 GHz for unlicensed use. That is in addition to more than 670 MHz of spectrum below 6 GHz already available for unlicensed use, which is more than the 580 MHz currently available below 6 GHz for licensed wireless use.

Artificially expanding the guard bands would also violate the statute. Section 6407(b) states that “guard bands shall be no larger than is technically reasonable to prevent harmful interference between licensed services outside the guard bands.” Yet the NPRM provides little engineering explanation why 6 MHz is the minimum guard band size, rather than less. Moreover, if 6 MHz would suffice, as the item suggests, “rounding up” to 10 MHz would violate the statute. Enlarging the guard bands for any reason other than mitigating interference, such as facilitating unlicensed use, would conflict with section 6407(b).

Auction Eligibility. Open, competitive auctions are the most efficient way of deploying scarce spectrum. Excluding parties from the auction, as the FCC’s aggregation NPRM contemplates, would likely hinder the broadband objectives of the act as well as reduce auction proceeds. It would also violate the act. Section 6404 creating new section 309(j)(17) of the Communications Act forbids the FCC, “[n]otwithstanding any other provision of law,” to “prevent a person from participating in a system of competitive bidding under [section 309(j)]” if

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<sup>3</sup>See Auction 33.

<sup>4</sup>See Spectrum Policy Task Force Report, ET Docket 02-135 (Nov. 2002); A Market-Based Approach to Establishing Licensing Rules: Licensed versus Unlicensed Use of Spectrum, FCC Office of Strategic Planning Working Paper 43 (Feb. 2008).

<sup>5</sup>See *Incentive Auctions NPRM* at ¶ 233.

that person “complies with all the auction procedures and other requirements to protect the auction process established by the Commission” and “meets the technical, financial, character, and citizenship qualifications that the Commission may require under sections 303(l)(1), 308(b), or 310 to hold a license.” New section 309(j)(17) does state that none of this language “affects any authority the Commission has to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition.” This does not, however, confer additional authority on the FCC or provide it another basis for preventing a party from participating in an auction. Rather, it makes clear that the FCC still retains any authority it otherwise has to adopt an industry-wide rulemaking addressing spectrum aggregation. For example, while we do not advocate the FCC do so, this language clarifies that the FCC may still adopt rules imposing a spectrum cap on wireless carriers. If a carrier were to win enough spectrum in an auction to exceed a cap, the FCC could then require the carrier to divest enough spectrum to fall back within the rule. It could not, however, exclude carriers from participating in the auction. Picking winners and losers with such “prior restraints” is antithetical to open, competitive auctions and would violate the language of section 309(j)(17) prohibiting the FCC from preventing participation except for the enumerated grounds. Construing this section otherwise would reduce that language to a nullity.

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*If you need more information, please call Neil Fried or David Redl at (202) 225-2927.*