

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Expanding the Economic and Innovation) GN Docket No. 12-268
Opportunities of Spectrum Through Incentive)
Auctions)

COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Telecommunications Industry Association (“TIA”)¹ hereby responds to the *Notice of Proposed Rulemaking* (“*Public Notice*”)² soliciting comment on alternative band configurations for the Commission’s incentive auction to repurpose television broadcast spectrum for mobile broadband offerings consistent with the Middle Class Tax Relief and Job Creation Act of 2012 (“Spectrum Act”).³

As the leading trade association for manufacturers and suppliers of high-tech communications equipment, TIA has long been an advocate for using incentive auctions to meet the growing demand for spectrum capable of supporting broadband services.⁴ The spectrum

¹ TIA represents approximately 500 member companies that manufacture or supply the products and services used in global communications across all technology platforms. For more than 80 years, TIA has worked to expand access to information and communications technologies, including broadband, mobile wireless, cable, satellite, and unified communications networks.

² See, In Re: Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, *Public Notice*, GN Docket No. 12-268, (May 17, 2013) [hereinafter *Public Notice*].

³ See Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, §§ 6402, 6403, 6407, 126 Stat. 156, 224-30, 231-32 (2012) (“Spectrum Act”).

⁴ See, e.g. Letter from Grant E. Seiffert to Hon. Fred Upton, *et. al.* (dated Dec. 11, 2012), available at <http://www.tiaonline.org/sites/default/files/pages/TIA%20Letter%20to%20House%20EC%2012-11-12.pdf>; TIA Press Release, *TIA Hails Congress for Coming to Agreement on Spectrum Incentive Auction Authority and Creating a Public Safety Network* (rel. Feb. 17, 2012), <http://www.tiaonline.org/news-media/press-releases/tia-hails-congress-action-spectrum-and-public-safety-network>; TIA Press Release,

crunch is increasingly having an adverse impact on American consumers and businesses, and the Commission's plans to bring new spectrum to the market rapidly are an important part of maintaining American economic competitiveness. Through incentive auctions and repacking of the broadcast television band, the Commission has an unparalleled opportunity to repurpose a substantial amount of prime spectrum for mobile broadband services. As such, TIA submits these comments to assist the FCC in crafting incentive auction rules that will maximize the deployment of 600 MHz band advanced broadband services, consistent with the dictates of the Spectrum Act.

I. TIA Supports the Commission's Objective of Maximizing the Incentive Auction

TIA believes that a well-designed broadcast incentive auction and repacking plan will unleash significant investment.⁵ A flawed approach to the auction, on the other hand, would frustrate wireless providers' ability to meet growing demand, raise consumer prices, slow investment in information and communications technology, and jeopardize the United States' leadership in the global wireless marketplace. It also may cast a cloud over the future usefulness of incentive auctions to repurpose other spectrum."

Telecommunications Industry Association Applauds FCC Action on Incentive Auctions (rel. Sept. 7, 2012), <http://www.tiaonline.org/news-media/press-releases/telecommunications-industry-association-applauds-fcc-action-incentive>.

⁵ See, Comments of Telecommunications Industry Association, GN Docket No. 12-268, (Jan. 25, 2013).

TIA appreciates the FCC's interest in considering alternative band plan approaches that might permit the plan to meet market-by-market variations. We believe, however, that this exercise could detract from the consideration of other critical, unresolved issues in this already complex proceeding.

II. Based on the Record, the “Down from 51” Band Approach Represents the Best Collective Engineering Judgment

TIA notes that this important proceeding already benefits from a very strong consensus supporting a “Down from 51” approach.⁶ Indeed, as the Commission already acknowledged in its public notice: “[m]any stakeholders support the ‘Down from 51’ band plan proposal – or a variation of it – in which the Commission would clear broadcast television channels starting at channel 51 and expand downward: the uplink band would begin at channel 51 (698 MHz), followed by a duplex gap, and then the downlink band.”⁷ Specifically, as the Commission notes, this consensus “is primarily based on concerns over high power services in the duplex gap and antenna design issues.”⁸

The record indicates a broad consensus from a diverse set of stakeholders for the adoption of a ‘Down from 51’ framework that seeks to maximize paired allocations and build guard bands only to meet engineering necessity. In a January 24, 2013 joint letter to the Commission, AT&T, Intel, the National Association of Broadcasters, Qualcomm, T-Mobile, & Verizon Wireless recommended adopting “[a] contiguous “Down from TV 51” approach with uplink at the top;”

⁶ See, *Public Notice*, GN Docket No. 12-268 at 1 (May 17, 2013).

⁷ Id.

⁸ Id. at 2.

and maximizing “the amount of paired spectrum above TV 37 (rely on supplemental downlink configurations where spectrum is cleared but pairing options are not viable); [r]ely upon 5 MHz spectrum blocks as building blocks for the band plan; [i]ncorporate a “duplex gap” or spacing between uplink (mobile transmit) and downlink (base transmit) of a minimum of 10 MHz, but no larger than technically necessary;” and “[a]void broadcast television stations in the duplex gap”⁹

Alcatel-Lucent, AT&T, Ericsson, Intel, the National Association of Broadcasters, Qualcomm and Verizon Wireless provided additional analysis in a May 3, 2013 joint letter to the Commission. Their conclusion is “There is no sound engineering justification for the extremely large (18-28 MHz) duplex gaps proposed by some commenters in this proceeding. Indeed, such a large duplex gap would decrease antenna efficiency and would unnecessarily consume as much as 15 MHz (i.e. three 5 MHz blocks) that could otherwise be auctioned. Finally, a wider duplex gap increases the amount of spectrum that the Commission would need to recover in the reverse auction in order to achieve a minimum auctionable bandwidth in every geographic market in the country for the forward auction.”¹⁰

TIA appreciates the Commission's intent to anticipate auction scenarios producing less than optimal outcomes in a few markets, where reintroducing limited TV stations between uplink and downlink could aid in increasing paired spectrum. These challenges need to be balanced with the four interference scenarios Ericsson raised with respect to the Commission’s “split”

⁹ See, Letter from AT&T, Intel, the National Association of Broadcasters, Qualcomm, T-Mobile, & Verizon Wireless to Gary Epstein, Incentive Auction Task Force Chair, FCC, and Ruth Milkman, Wireless Bureau Chief, FCC (January 24, 2013),

¹⁰ See, Letter from Alcatel-Lucent, AT&T, Ericsson, Intel, the National Association of Broadcasters, Qualcomm and Verizon Wireless to Gary Epstein, Incentive Auction Task Force Chair, FCC, and Ruth Milkman, Wireless Bureau Chief, FCC (May 3, 2013) at 2

band plan proposal, which included multiple TV stations in the duplex gap, “including intermodulation products within wireless user equipment, overloading the wireless user equipment receivers, overloading wireless base station receivers, and disrupting DTV reception.”¹¹

TIA notes that a “Down from 51” band approach represents the best collective engineering judgment not just of equipment manufacturers, but also of other companies affected by the auction – including broadcasters and wireless carriers. This is because, as Intel sums up the issue, “the ‘Down from 51’ approach has the most support in the comment record” and “[f]ewer operational concerns than the split approach.”¹²

¹¹ See, Reply Comments of Ericsson, GN Docket No. 12-268, at i9 (March 12, 2013).

¹² See, *Ex Parte* Filing of Intel Corp, GN Docket No. 12-268, at 1 (June 6, 2013)

I. CONCLUSION

The baseline policy choices that the Commission must make – including decisions concerning efficient repacking, structure of the 600 MHz band, incentives to be offered to interested TV broadcasters in the reverse auction, and open eligibility standards for bidders in the forward auction – will determine the degree to which the world’s first-ever incentive auction succeeds. TIA urges the Commission to adopt rules and policies that encourage the largest possible number of participants on both sides of the auction and promote the efficient spectrum configuration.

Respectfully submitted,

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June 14, 2013