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July 10, 2015

EX PARTE VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002, AU Docket No. 14-252; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268*

Dear Ms. Dortch:

On Thursday, July 9, 2015, numerous parties met with members of the Incentive Auction Task Force to discuss the threat to competition posed by a spectrum reserve triggered too late because of unreasonably high clearing targets.¹

The spectrum reserve is the lone safeguard against one or two dominant players buying all of the spectrum available in the 600 MHz auction. If the spectrum reserve does not work, consumers will suffer and the hard-fought battle to adopt competitive safeguards for this one-of-a-kind low-band spectrum auction will have been completely pointless.

¹ The following people participated in the meeting: Rebecca Thompson of Competitive Carriers Association (CCA); Alison Minea of DISH Network; Harold Feld of Public Knowledge; Larry Krevor and Rick Engelman of Sprint Corp.; Kathleen Ham, Anthony Russo (by phone), and Steve Sharkey of T-Mobile USA, Inc.; Dr. Gregory Rosston (by phone) and Dr. Andrzej Skrzypacz (by phone), on behalf of T-Mobile; and the undersigned, on behalf of T-Mobile; Melissa Dunford, Gary Epstein, Mary Margaret Jackson, Evan Kwerel, John Leibovitz, Bill Scher, Martha Stancil, and Joel Taubenblatt of the FCC; and Paul Milgrom (by phone) and Ilya Segal (by phone) of Auctionomics, a consulting firm that is advising the Commission.

During the meeting with staff, the participants reviewed arguments detailed in the attached Declaration of Dr. Gregory Rosston and Dr. Andrzej Skrzypacz. Dr. Rosston and Dr. Skrzypacz explained how tying the spectrum reserve to the Final Stage Rule (FSR) could frustrate the purpose of the spectrum reserve.² Like a homeowner with an underwater mortgage, the high expenses associated with the high initial clearing target will continue to hang over subsequent rounds of the auction. This hangover effect occurs because the reserve trigger is not based on *actual* clearing costs. Instead, the reserve trigger is determined by the *hypothetical* costs for a high initial clearing target that is not met, that bidders will never pay, and broadcasters will never receive.³ Participants explained that absurdity of allowing the pro-consumer spectrum reserve to simply vanish because the Commission happens to select an unachievable clearing target.

To avoid this outcome, T-Mobile has proposed a “safety-valve” trigger for creating the reserve.⁴ The spectrum-reserve trigger should be either (1) an average of \$2.00 per MHz-POP in the top 40 PEAs; or (2) the price for satisfying all broadcaster reimbursement and repacking costs as well as auction administrative costs, whichever occurs first. Other fixes would work, too.⁵ Adopting the safety-valve trigger or one of any other proposed solutions would help protect

² If the Commission starts the auction with a high spectrum-clearing target, the prices necessary to satisfy broadcast clearing expenses will likely be very high, too – so high, in fact, that they may exceed the collective willingness of all bidders to pay. For example, if the initial clearing target is 126 MHz for ten paired licenses, and the total revenue needed to clear the broadcasters at that target is \$120B, then this amount would correspond to an average price of \$3.69 per MHz-POP. If reserve-eligible bidders drop out at \$2.40 per MHz-POP, and if enough other bidders reduce demand, collective bidding could stop short of satisfying the FSR for the high clearing target. The Commission would then reduce the spectrum-clearing target. The revenue requirement to pay off the broadcasters would be smaller at this new, smaller spectrum-clearing target, for two reasons. First, the FCC will be buying fewer stations. Second, because the FCC will be buying fewer stations, there will be additional competition in the reverse auction, which will drive prices per station down. The lower clearing costs should result in an earlier triggering of the spectrum reserve; however, that desired outcome may not occur.

³ To return to the example in footnote 2, above, if the Commission were to pursue a lower clearing target of 114 megahertz (or any subsequent lower clearing target), the overall revenue requirement could drop below \$2.40 per MHz-POP to, for example, \$1.80 per MHz-POP. In such a case, reserve-eligible bidders would be willing to buy licenses at nationwide average price \$1.80 per MHz-POP, but unwilling to buy them above \$2.40 per MHz-POP. Under the currently proposed reserve-trigger design, however, the FCC would *start* the forward-auction bidding at the new, lower clearing target at a price of \$2.40 per MHz-POP with no reserve and no reserve-eligible bidders. Had the FCC started with the achievable level of spectrum clearing, the reserve would have been triggered at \$1.80 per MHz-POP.

⁴ Letter from Trey Hanbury, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, AU Docket No. 14-252 at 2 (June 25, 2015).

⁵ See, e.g., Letter from Harold Feld, Senior Vice President, Public Knowledge to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 12-268, AU Docket No. 14-252 at 1 (July 9, 2015) (urging the Commission to adopt a single \$2 per MHz-POP trigger); Letter from Lawrence R. Krevor, Vice President, Legal and Governmental Affairs—Spectrum, Sprint Corp., *et al.*, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 12-268, AU Docket No. 14-252 at 3-4 (May 20, 2015); Letter from Trey Hanbury, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 12-268, AU Docket No. 14-252 at 2 (Apr. 24, 2015).

against the risk of foreclosure while ensuring that all bidders in the forward auction pay their fair share of broadcast-clearing expenses.⁶

The Commission created the spectrum reserve to preserve and promote consumer choice and competition among multiple service providers in the mobile broadband marketplace.⁷ As the Department of Justice has noted, the Commission has an opportunity through the spectrum reserve to ensure that wireless carriers other than those that currently hold the majority of low-frequency spectrum have a meaningful opportunity to acquire this critical input.⁸ To have a meaningful reserve that fulfills its pro-competitive objectives and fosters innovation in the market, the Commission must trigger the spectrum reserve early enough in the auction to enable competitive providers to gain access to 600 MHz spectrum without the risk of foreclosure.

Representatives of T-Mobile also discussed the submission of Rep. Henry A. Waxman concerning a possible compromise for addressing the competing priorities of numerous parties.⁹ The Commission, T-Mobile's representative explained, could alter the balance of interests among parties depending on whether the ultimate spectrum-clearing target falls above or below 84 megahertz. At spectrum-clearing targets of more than 84 megahertz, the Commission could expand opportunities for unlicensed operations in the duplex gap and protect competitive carriers against a lengthy delay in activating the spectrum reserve that could occur at higher clearing targets. Meanwhile, at spectrum-clearing targets of 84 megahertz or less, the Commission should prioritize low-band spectrum availability for licensed use, especially among those carriers that have access to little or no low-band spectrum. This approach would reasonably adjust competing auction priorities to the amount of spectrum cleared.

⁶ During the meeting, Commission staff asked how, mechanically, to address the potential concern of having to start a stage with three clocks in each PEA. One issue with adopting a \$2.00 per MHz-POP trigger is that the reserve could be established in one spectrum-clearing stage and then be carried over to a lower spectrum-clearing stage with a different number of Category 1 licenses available in a PEA. For example, if there were a clearing target with three Category 1 licenses, but the transition to the next clearing target increases the impairment of one (or more) of the licenses so that it no longer qualifies as Category 1, how would the system handle this issue? Among other things, the Commission could designate the three least impaired licenses as Category 1, even if in some limited circumstances that meant having some licenses with greater impairment treated as similar to less impaired licenses. See Comments of T-Mobile USA, Inc., AU Docket No. 14-252, GN Docket No. 12-268 at 6-8 (Feb. 20, 2015). This solution would mitigate the potential concern associated with moving to a lower stage with the reserve already triggered.

⁷ *Policies Regarding Mobile Spectrum Holdings; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6133, 6145 ¶ 21 (2014) (“[W]e must ensure that multiple service providers have access to spectrum in the foreseeable future.”).

⁸ Letter from William J. Baer, Assistant Attorney General, Antitrust Division, U.S. Department of Justice to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 12-269 at 1 (June 24, 2015).

⁹ Letter from Henry A. Waxman, Chairman, Waxman Strategies, to Hon. Tom Wheeler, Chairman, Federal Communications Commission, GN Docket No. 12-268, WT Docket No. 12-269, AU Docket No. 14-252 at 1 (July 9, 2015).

Consistent with section 1.1206(b)(2) of the Commission's rules, an electronic copy of this letter is being filed in the above-referenced docket. Please direct any questions regarding this filing to me.

Respectfully submitted,

/s/ Trey Hanbury

Trey Hanbury
Counsel to T-Mobile USA, Inc.

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002)	AU Docket No. 14-252
)	
)	
Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions)	GN Docket No. 12-268
)	

JOINT DECLARATION OF GREGORY ROSSTON AND ANDRZEJ SKRZYPACZ

1. We are submitting this Joint Declaration to explain how making the reserve contingent on satisfaction of the Final Stage Rule could defeat the purpose of the spectrum reserve.

2. Dr. Gregory Rosston is Deputy Director and Senior Fellow at the Stanford Institute for Economic Policy Research and Director of the Public Policy program at Stanford University. Dr. Rosston is also a Professor of Economics by courtesy and previously served as Deputy Chief Economist at the Federal Communications Commission working on the implementation of the Telecommunications Act of 1996 and he helped to design and implement the first ever spectrum auctions in the United States. He received his Ph.D. in Economics from Stanford University specializing in the fields of Industrial Organization and Public Finance and his A.B. with Honors in Economics from University of California at Berkeley.

3. Dr. Andrzej Skrzypacz is the Theodore J. Kreps Professor of Economics at the Stanford University Graduate School of Business. He is also a Professor of Economics by courtesy. Dr. Skrzypacz currently serves as an Associate Editor for the RAND Journal of Economics and is a former co-editor of the American Economic Review. His research focuses on game theory and market design. He received his Ph.D. in Economics from the University of Rochester.

4. If the Commission starts the incentive auction with a high spectrum-clearing target, the prices necessary to satisfy broadcast clearing expenses will likely be very high, too – so high, in fact, that they may exceed the collective willingness of all bidders to pay. For example, if the initial clearing target is 126 megahertz, which would result in ten paired licenses in the forward auction, and the total revenue needed to clear the broadcasters at that target is \$120B, then this would correspond to a revenue requirement in the

forward auction of approximately \$3.70 per MHz-POP average across the country.¹ If reserve-eligible bidders drop out at \$2.40 per MHz-POP, and if enough other bidders reduce demand, collective bidding could stop short of satisfying the broadcast-clearing costs for the high spectrum-clearing target.

5. The Commission would then reduce the spectrum-clearing target and restart the reverse auction. Since the Commission would be now looking to buy fewer licenses and the average price per MHz-POP in the reverse auction would go down thanks to competition among broadcasters, the resulting revenue requirement would drop.

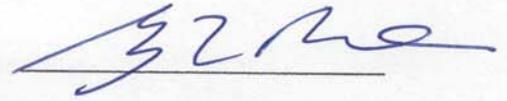
6. With a lower clearing target of 114 megahertz (or any subsequent lower clearing target), the overall revenue requirement could drop below \$2.40 per MHz-POP to, say, \$1.80 per MHz-POP. In this example, reserve-eligible bidders would be willing to buy licenses at a nationwide average price of \$1.80 per MHz-POP, but unwilling to buy them above \$2.40 per MHz-POP. Under the currently proposed reserve-trigger design, the Commission would start the forward-auction bidding at the new, lower clearing target at a price of \$2.40 per MHz-POP with no reserve and no reserve-eligible bidders. Had the Commission started with the achievable level of spectrum clearing, the reserve would have been triggered at \$1.80 per MHz-POP. But simply as a result of picking an unachievable clearing target, the spectrum reserve would never become available. In other words, if the intent of the rules was to trigger the reserve at prices high enough to pay for clearing the broadcasters, then the current rules have an unintended consequence that the reserve could be triggered at much higher prices, in fact so high that it could negate the intended goal of the reserve.

7. We think that the at-most-one-time price reset rule proposed by T-Mobile would be the best modification of the rules to align them with the intended goals of the reserve.² However, if the Commission decides not to accept that rule change, the additional safety-valve solution of triggering the reserve is a very simple alternative to minimize the chance of unintentionally eliminating the reserve.

¹ In the clearing scenario of 126 megahertz, only at most 100 megahertz of licenses get created (because of guard bands and duplex gap, and the total number can be even smaller because of impairments). \$120B per 100 megahertz and per 325M people results in an average price of \$3.69 per MHz-POP.

² See Letter from Trey Hanbury, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, AU Docket No. 14-252 at 3 (June 30, 2015).

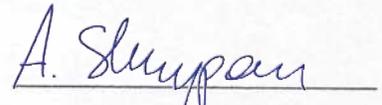
I, Gregory Rosston, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.



Gregory Rosston

Executed on July 9, 2015

I, Andrzej Skrzypacz, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.



Andrzej Skrzypacz

Executed on July 9, 2015