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May 7, 2014

VIA ELECTRONIC FILING

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

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

Dear Ms. Dortch:

On Tuesday, May 6, 2014, Chris Wieczorek of T-Mobile USA, Inc. ("T-Mobile") spoke via telephone with Barbara Pavon, an engineer in the Wireless Bureau. During the call, the T-Mobile representative discussed the use of real world network design information for consideration in the inter-service interference analysis between mobile broadband and digital television services. Mr. Wieczorek suggested that the real world network design information provided to the Commerce Spectrum Management Advisory Committee (CSMAC) could be incorporated into the inter-service interference analysis for the 600 MHz band.

Specifically, he suggested using base station antenna height ranges of between 15 meters and 45 meters as a model LTE base station height.[1] For LTE base station power, typical LTE equipment is configured to transmit at 43 dBm for tower top mounted radio units and 46 dBm for ground based radio units. Antenna gain, MIMO, and different LTE channel bandwidths increase the maximum equivalent isotropically radiated power (EIRP) of the base station transmitter per the transmitter characteristics submitted to CSMAC.[2]

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[1] *See* COMMERCE SPECTRUM MANAGEMENT ADVISORY COMMITTEE, WORKING GROUP 1 – 1695-1710 MHZ METEOROLOGICAL-SATELLITE, at Appendix 3-5 and Appendix 3-7, Final Report Rev. 1, *available at* http://www.ntia.doc.gov/files/ntia/publications/wg1_report_07232013.pdf (last visited May 6, 2014) (T-Mobile's mean antenna height above ground of approximately 31 meters falls within this range, with lower and higher variations in different parts of the country.)

[2] *See* COMMERCE SPECTRUM MANAGEMENT ADVISORY COMMITTEE, LTE (FDD) TRANSMITTER CHARACTERISTICS, at1, *available at* http://www.ntia.doc.gov/files/ntia/meetings/lte_technical_characteristics_0.doc (last visited May 6, 2014)

If there are any questions regarding the foregoing, please contact the undersigned directly.

Respectfully submitted,

/s/ Steve B. Sharkey

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T-Mobile USA, Inc.