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*Electronic Submission*

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Portals II, Room TW-A325  
Washington, DC 20554

**Ex Parte Submission**

**RE: AT&T Request for Waiver to Permit Power Spectral Density Model for 800 MHz Cellular Operations in Seven Kansas Markets, WT Docket No. 15-130**

Dear Ms. Dortch:

Pending a rulemaking in WT Docket 12-40 to consider changes in the Cellular service base station power rules, AT&T seeks a waiver that would enable it to operate Cellular base stations at 250 W/MHz in non-rural areas and 500 W/MHz in rural areas (i.e. a power spectral density (“PSD”) measure) in seven Kansas markets. AT&T has previously explained the increasing consumer demands for data and that AT&T’s network must keep up with that demand to provide reliable broadband service. This demand exists even in the rural Kansas markets covered by this waiver request.

To meet consumer demand for data in Kansas and consistent with AT&T’s commitment to providing broadband to rural America, AT&T’s network is evolving from narrowband technologies, such as Global System for Mobile Communications (GSM), to broadband technologies, such as Universal Mobile Telecommunications System (UMTS) and Long Term Evolution (LTE). These broadband technologies offer wider radio channels and thus, more spectrum efficiency and greater capacity.<sup>1</sup> However, AT&T’s coverage in Kansas contracts when broadband technology is deployed using currently authorized power limits. For example, at the same power per transmitter, coverage with UMTS is less than with GSM and, more telling, coverage with LTE over a 10 MHz channel is less than with LTE over a 5 MHz channel. Reduced coverage is especially disadvantageous in rural counties, such as those covered by AT&T’s waiver request, where base stations are more widely dispersed or where a single base station may be deployed. Allowing AT&T to operate at the PSD levels of 250 W/MHz in non-rural areas and 500 W/MHz in non-rural areas will allow AT&T to continue to provide

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<sup>1</sup> See, e.g., Mobile Broadband Explosion: 3GPP Broadband Evolution to IMT-Advanced, Rysavvy Research (Sept. 2011), available at: [http://www.4gamericas.org/files/9414/0622/2731/4G\\_Americas\\_Mobile\\_Broadband\\_Explosion\\_August\\_2013\\_9\\_5\\_13\\_R1.pdf](http://www.4gamericas.org/files/9414/0622/2731/4G_Americas_Mobile_Broadband_Explosion_August_2013_9_5_13_R1.pdf) (last visited Aug. 26, 2015).

consumers in Kansas with the coverage they have come to expect and to recognize the spectral efficiencies inherent in LTE.

AT&T and its Kansas customers can benefit from these efficiencies only if LTE is deployed over the Cellular service spectrum because AT&T's network is designed for the propagation characteristics of 850 MHz spectrum. In most areas of the country, AT&T has used 700 MHz spectrum for its initial LTE deployment, supplementing capacity as needed by deploying additional carriers in the AWS, PCS and Cellular bands. 700 MHz, which is authorized to operate using PSD at levels higher than the limits proposed in this docket, can be deployed efficiently on a cell site grid designed for 850 MHz spectrum due to the similarity in propagation characteristics. In Kansas, AT&T has no paired 700 MHz spectrum to use to deploy LTE. While it is possible to deploy LTE using higher band spectrum, such as AWS or PCS—AT&T, T-Mobile and other carriers have done so in many areas—it is more efficient to do so where the existing cell site grid was designed for a high-band only deployment. Increasing the density of AT&T's infrastructure to optimize a high-band only LTE network would take many years. For these reasons and the reasons previously detailed in the record, AT&T seeks an expedited grant of the waiver requested for seven Kansas markets--KNKN465, KNKN469, KNKN514, KNKN516, KNKN518, KNKN741, and KNKQ376.

In accordance with section 1.1206(b)(2) of the Commission's rules, this letter is being filed electronically with your office. Please feel free to contact me if you have any questions.

Sincerely,

cc: Roger Noel  
Lloyd Coward  
Tom Derenge  
Keith Harper  
Moslem Sawez  
Nina Shafran  
Becky Schwartz